

GOVERNMENT OF ODISHA



DEPARTMENT OF WATER RESOURCES

TENDER DOCUMENT (e - Procurement)

(TECHNICAL BID) (COVER –I)

e-Procurement Notice No. ACE, VNB – 05 / 2026-27

Bid Identification No.: ACE,VNB(HID)– 06/ 2026-27

FORTHE WORK

Peripheral Development of Harabhangi Dam of Mohana Block (Dam site park and hill top development projects at Harabhangi Dam, Adava, Gajapati).

Additional Chief Engineer
VansadharaNagabali Basin
Paralakhemundi, Gajapati

GOVERNMENT OF ODISHA

BID DOCUMENTS

NAME OF WORK: “Peripheral Development of Harabhangi Dam of Mohana Block (Dam site park and hill top development projects at Harabhangi Dam, Adava, Gajapati)”

The bid document contains (i) Technical Bid & (ii) Financial Bid.

C O N T E N T S

SECTION	ITEMS	PAGE NO.
SECTION-1	NIT & DETAILED TENDER CALL NOTICE	04-23
SECTION-2	INFORMATION & INSTRUCTION TO TENDERERS	24-75
SECTION -3	GENERAL RULES AND DIRECTIONS	76-81
SECTION - 4	CONDITION OF CONTRACT	82-124
SECTION - 5	TECHNICAL SPECIFICATIONS	125-167
SECTION - 6	DRAWINGS	168

SECTION – 1

NOTICE INVITING TENDER (N.I.T.) & DETAILED TENDER CALL NOTICE



GOVT. OF ODISHA
DEPARTMENT OF WATER RESOURCES
Office of the Additional Chief Engineer
Vansadhara Nagabali Basin, Paralakhemundi
(email Id: se_sicpkd@yahoo.com)

e-Procurement Notice No. ACEVNB-05/2026-27

1.	Type of works	:	Peripheral Development & Cement Concrete lining Works.
2.	Total number of Packages	:	2(Two) Nos.
3.	Estimated Cost	:	Rs. 304.07 lakhs to Rs. 630.25 lakhs.
4.	Bid Identification No.	:	ACEVNB / HID-06 / 2026-27 & ACEVNB / HID-07 / 2026-27
5.	Period of completion	:	12 (Twelve) months.
6.	Availability & submission of bid online	:	From 11.00 AM of 10.09.2026 to 5.00 PM of 29.09.2026.
7.	Date of Opening of Technical Bids	:	30.09.2026 at 11.00 AM. in the, O/O the Additional Chief Engineer, Vansadhara Nagabali Basin, Paralakhemundi.
8.	Procurement Officer	:	Additional Chief Engineer, Vansadhara Nagabali Basin, Paralakhemundi.
9.	Further details can be seen from Govt. Website www.tendersorissa.gov.in and any addendum/corrigendum/cancellation will be published in the said website.		

Sd/-
Additional Chief Engineer
Vansadhara Nagabali Basin
Paralakhemundi



GOVERNMENT OF ODISHA
DEPARTMENT OF WATER RESOURCES
Office of the Additional Chief Engineer,
Vansadhara Nagabali Basin, Paralakhemundi – 761200
Notice Inviting Tender

e- Procurement Notice No. ACE, VNB – 05 / 2026-27
(email Id: se_sicpkd@yahoo.com)

1. The Additional chief Engineer, Vansadhara Nagabali Basin, Paralakhemundi on behalf of Hon'ble Governor of ODISHA invites On-line **percentage rate** tender in **double cover** through e-procurement for execution of the following works. The bid should be submitted by eligible class of contractors On-line in the Govt. website www.tendersodisha.gov.in. The bidders should have the necessary portal enrolment with their own digital signature certificate. The registered bidders outside of ODISHA can also participate in this on-line tender process after necessary portal enrolment but shall have to subsequently undergo registration with the Odisha P.W.D. before signing the agreement.

Sl No	Bid I.D. No.	Name of Work	Approx value of work (Rs. in Lakhs)	E.M.D./ Bid Security Required (Rs.)	Cost of Bid Document (Rs.)	Period of completion	Class of contract or
1	2	3	4	5	6	7	8
1	ACE, VNB (HID) – 06/ 2026-27	Peripheral Development of Harabhangi Dam of Mohana Block (Dam site park and hill top development projects at Harabhangi Dam, Adava, Gajapati)	304.07	3,04,070/-	10000/-	12 (Twelve) calendar months	'A' only
2	ACE, VNB (HID) – 07/ 2026-27	Improvement to tail reach of Gundibira Sub-minor, Borsing Sub-minor, Hukuma Sub-Minor, Chanchadapalli Sub-Minor, Bijayagopalpur Sub-Minor, B.Kotibadi Sub-Minor offtaking from Left Distributary of Harabhangi Irrigation Project.	630.25	6,30,250/-	10000/-	12 (Twelve) calendar months	'A' only or 'Spl' only

2. The Bidder shall transfer online the Earnest Money Deposit of the amount specified for the work in Column-5 of above table as part of its bid through a process as mentioned under DTCN.
3. The Bidder shall transfer online the cost of bid document (Non refundable) specified for the work in the Column -6 of above table i.e Rs 10,000/- through a process as mentioned under DTCN.

4. Procurement Details: -

Procurement officer	Availability of Bid On -line	Submission of Bid On-line	Period for seeking clarification on tender	Date & time of opening of tender	
				Technical bid	Financial bid
ACE, VN Basin, Paralakhemundi	From 11.00 A.M on 10.09.2026, to 5.00 P.M. on 29.09.2026	From 11.00 A.M on 10.09.2026, to 5.00 P.M. on 29.09.2026	From 11.00 A.M on 10.09.2026, to 1.00 P.M. on 22.09.2026	30.09.2026 at 11.00 A.M	To be intimated to qualified bidders after evaluation of technical bid.

5. Tender should be submitted On-line in www.tendersodisha.gov.in. Bid document consisting of qualification, information and eligibility criteria of bidders, plans, specification and Bill of quantities of the works are available in website www.tendersorissa.gov.in and the set of terms and conditions of contract and other necessary documents can be seen in the website till last date of submission of Bid.
6. Bid validity period of the Tender is for a period of 90 days from the last date of submission of the Bid. If any bidder withdraws his Bid/Tender before the said period or makes any modification to the terms and condition of the bid, he/she will be suspended for the time specified in the tender document.
7. Engineers of Gazette rank or other Gazetted officer employed in Engineering or Administrative duties in an Engineering Department of the State Government are not allowed to work as a contractor for a period of two years after his retirement from Government service, without Government permission.
8. Additional Performance Security (APS) shall be obtained from the bidder when the bid amount is less than the estimated cost put to the tender. In such an event, only the successful bidder who has quoted less bid price/ rates than the estimated cost put to tender shall have to furnish the exact amount of the APS in the rates as noted below.

As per the Govt. of Odisha, Works Department Office Memorandum No

07764600022025-173/W., Bhubaneswar dated 03.01.2026: Additional performance security shall be taken on an incremental basis from the selected bidder for low bid prices in the project works as under

- I. 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.
- II. 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:
- III. 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:
- IV. 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.

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

VI. Justification for abnormally low bids shall be scrutinized by the Departmental Technical Committee and recommended to the competent authority of the Administrative Department for the approval of the Additional Performance Security (APS). An abnormally low bid is one in which the Bid price, in combination with other elements of the Bid, appears so low that it raises material concerns as to the capability of the Bidder to perform the contract at the offered price. Procuring Entity may, in such cases, seek written clarifications from the Bidder, including detailed price analyses of its Bid price in relation to scope, schedule, resource mobilization, allocation of risks and responsibilities, and any other requirements of the bid document., If, after evaluating the price analyses, the procuring entity determines that the Bidder has substantially failed to demonstrate its capability to deliver the contract at the offered price, the Procuring Entity may reject the Bid/Proposal. However, it would not be advisable to fix a normative percentage below the estimated cost, which would automatically be considered as an abnormally low bid.

The successful bidder shall furnish Additional Performance Security (APS) in shape of Term Deposit Receipt duly pledged/ Bank Guarantee duly issued in favour of the of respective Superintending Engineers mentioned in the table below 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) by the Divisional Officer (By e-mail) otherwise the bid will be cancelled & he/ she will be suspended for the time specified in the tender document. Further, proceeding for blacklisting shall be initiated against the bidder. If the APS is submitted in shape of Bank Guarantee, then the validity of the Bank Guarantee should be for a minimum period equal to the period allowed for completion of the work plus defect liability period of one year and one month extra for transaction period.

9. The successful bidder shall furnish Additional Performance Security (APS) in shape of Term Deposit Receipt duly pledged/ Bank Guarantee duly issued in favour of theof respective Superintending Engineersmentioned in the table belowfrom any Nationalized/ Scheduled Bank in India counter guaranteed by its local branch at Bhubaneswar within 7 days of issue of letter of acceptance (LoA) by the Divisional Officer (By e-mail) otherwise the bid will be cancelled & he/ she will be suspended for the time specified in the tender document. Further, proceeding for blacklisting shall be initiated against the bidder. If the APS is submitted in shape of Bank Guarantee, then the validity of the Bank Guarantee should be for a minimum period equal to the period allowed for completion of the work plus defect liability period of one year and one month extra for transaction period.

Work Sl. No	Bid I.D. No.	Name of Superintending Engineer in whose favour the APS shall be prepared.
1	ACE, VNB(HID) – 06/ 2026-27	Superintending Engineer, Harabhangi Irrigation Division, Adava Dist.-Gajapati.
2	ACE, VNB (HID) –07/2026-27	

10. The bidders are required to upload the documents such as (i) Valid Original Contractors Registration Certificate (CDMS), (ii) GST Registration Certificate, (iii) Original affidavit regarding authenticity of documents, (iv) No relation certificate, (v) PAN card & (vi) online transmission of EMD/ Security deposit and (vii) All other required documents along with the technical bid, otherwise his / her bid shall be declared as non-responsive and shall be rejected. The lowest successful bidder only is required to produce documents viz Original Contractors Registration Certificate, GST Registration Certificate, Original affidavit regarding authenticity of documents, no relation Certificate, PAN card after opening of Financial Bid for verification purpose within **5 (five)** days from the date of opening of the tender (price bid) or from the date of lottery if lottery has been held.
11. Technical Bids received online shall be opened at **11.00 A.M** on **30.09.2026** in the Office of the **Additional Chief Engineer, Vansadhara Nagabali Basin, Paralakhemundi, Dist.-Gajapati, (Odisha)** in the presence of the bidders who wish to attend. Bidders who participated in the bid can also witness the opening of the bids after logging on to the site through their DSC. If the office happens to be closed on the date of opening of the bids as specified, the bids will be opened on the next working day at the same time and venue.
12. The Bidders should ensure clarity/ legibility of the documents uploaded by them to the portal. Non submission of legible documents may render the bid non-responsive. **Further, the bidders are requested to mention their e-mail ID & mobile phone no. in the Affidavit for correspondence.**
13. Bidders registered as S.C & S.T Contractors desiring to avail concession(s) / Price preference as per prevailing rules should apply for the same in writing in shape of affidavit and upload necessary documents & affidavit in support of his claim along with their bid, failing which their case may not be considered.
14. If the rate quoted by more than one bidder is found to be equal and lowest, then the tender accepting authority will finalize the tender through a transparent lottery system, where all bidders/their authorized representatives, the concerned Superintending Engineer and DAO will remain present. The percentage rates should be written both in words and figures in decimal coinage and the units in words In case of discrepancy in rates between words and figures the rates written in words will prevail. The tender should also show the grand total of the whole tender.
15. If the 1st lowest bidder does not turn up for agreement after finalization of tender, then he shall be debarred from participation in bidding for three years & action will be taken to black list the contractor as per codal provision in Annexure-II of Amendment to Para-3.4.14 Note-I of OPWD Code Vol-1.
16. As per Office Memorandum No.16 dt.01.01.2015 of Work Department Government of Odisha, when in response to a notice calling for tenders, only a single tender is received in the first instance, the tender will be cancelled without opening of the bid and fresh tender will be invited publicly. If single tender is received, even after retendering, then the approval of the next higher authority shall be obtained, if the tender is in order and acceptable.
17. The addendum/ corrigendum if any will be hoisted in the State e-Procurement Portal i.e., www.tendersodisha.gov.in. only.
18. Registration in the Contractor Data Base Management System (CDMS) available at www.cdmsodisha.gov.in by all Contractors are mandatory as per O.M No.12934/W dated

23.08.2018 of Works Department, Govt. of Odisha with insertion of provision in Para-12.4 below Para-12 in Appendix-IX(A) of the OPWD Code, Volume-II. The tender will not be accepted, or bid will be rejected if not registered under CDMS portal.

19. Bidders registered as 'Engineering contractor' desirous to avail exemption of EMD for participating in the bid shall have to upload an affidavit mentioning the number of tendered works already awarded to him/her without EMD during the current financial year, in case of non submission of the above affidavit, his/her claim for availing the benefits of Engineering contractor may not be considered.
20. The authority reserves the right to reject/ cancel any or all the tenders without assigning any reasons thereof.
21. Other details can be seen in the bidding documents, which is available in website www.tendersodisha.gov.in.

Sd/-
Additional Chief Engineer
Vansadhara Nagabali Basin,
Paralakhemundi

**OFFICE OF THE ADDITIONAL CHIEF ENGINEER
VANSADHARA NAGABALI BASIN, PARALAKHEMUNDI**

DETAILED TENDER CALL NOTICE

1. The **Additional Chief Engineer, VansadharaNagabali Basin, Paralakhemundi, Gajapati, Odisha**, invites sealed on-line **percentage rate** tender for the work“**Peripheral Development of Harabhangi Dam of Mohana Block (Dam site park and hill top development projects at Harabhangi Dam, Adava, Gajapati)**”throughwebsite prescribed form to be eventually drawn on P1 Agreement Form from the **Registered contractor of“A”Class only**and equivalent class registered under Water Resources, Works and other Departments of Govt. of Orissa. C.P.W.D., Railway or Military Engineering Services, Air and Naval or other State Govt., Govt. of India, Central Govt. undertakings are also eligible to tender for the work. This invitation for Bids is open to eligible bidders who are registered in the portal. Successful Bidders registered under other state Govt. / CPWD / MES / Railway, Air & Naval has to register under State CDMS before signing of the Agreement.
2. The tender documents may be downloaded from the Govt. website from **10.09.2026, 11.00A.M.** to **29.09.2026, 5.00 P.M.**Payment towards cost of tender paper is **Rs. 10,000.00 (Rupees Ten thousand)** and is to be remitted online, which is not refundable. Papers will be received through Govt. web site only from **10.09.2026, 11.00A.M.** to **29.09.2026, 5.00 P.M.**The Cover-I (Technical bid) will be opened on **30.09.2026 at 11.00 AM** in the **Office of the Additional Chief Engineer, Vansadhara,Nagavali Basin Paralakhemundi, Dist.-Gajapati (Odisha)** in presence of the Tenderers or their authorized agents. The bidder shall bear all costs associated with the preparation & submission of bids. Bids will be made available through e-Procurement portal, the **cost of bid is Rs.10,000/-**. Documents to be furnished by the bidder in compliance to the requirement as per DTCN & NIT will be prepared by him & furnished. For submission of bids through the e-Procurement portal, all the volumes shall be provided in the portal. The bidders shall prepare the documents & up load the scanned document to the portal in appropriate place. The bidders can view the summary of opening of the bid from any system logging on to the portal. Bidders are not required to be present during the bid opening at the opening location if they so desire. The bids can only be opened by the pre-designated officials only after the opening time mentioned in the bid.
3. The approximate value of the work tendered for is **Rs.304.07 Lakhs**
4. No tenderer will be permitted to furnish their tender in their own manuscript.

5. The bidder shall **transfer online the Earnest Money deposit / Bid Security @1%** of the amount put to tenderi.e.**Rs.3,04,070/-**

6. The system shall reject submission of any bid through portal after closure of the receipt time. For all purpose the portal time displayed in the system shall be the time to be followed by the bidder.

7. Deleted

8. For a particular work a bidder can submit only one tender paper. If a bidder submits more than one bid for a particular work through e-Procurement portal the system shall consider only the last bids submitted through portal.

9. The tender is to be submitted in two covers. Cover-I (Technical Bid) which is to contain copy of(i) Valid Original Contractors Registration Certificate (CDMS), (ii) GST Registration Certificate, (iii) Original affidavit regarding authenticity of documents, (iv) No relation certificate, (v) PAN Card (vi) Required EMD/Bid Security & Bid cost online and (VII) All other required documents along with the technical bid duly filled-in as per the relevant clauses of this DTCN & NIT and special conditions if any and Cover-II (Financial Bid). During submission of Bids through the e-Procurement Portal, the bidder shall only submit single copy of the document. He is required to check the documents uploaded with the requirement asked for in the bid. Only after satisfying that all the documents have been uploaded, he should activate submit button. His bids shall not be considered responsive and action as per relevant clause shall be taken if he does not provide the required documents or provided illegible document. Clarity of the document may be ensured by taking out a sample printing.

10.The bidder can seek clarification on the bids as per mentioned date to the deadline for submission of bid from the Tender Inviting Authority (TIA) and **Superintending Engineer, Harabhangi Irrigation Division,Adava, Dist.-Gajapati.**

11.Deleted

12.Deleted

13.An applicant or any of its constituent partners of whose contract for any work has been rescinded or who has abandoned any work in the last three years having the contracted work as in-complete prior to the date of the bid, shall be disqualified. The information to this effect and the authentication of tender documents should be furnished in Annexure- 'F' in absence of which will be summarily rejected.

14.All charges towards quality control test will be borne by the contractor.

15.The work is to be completed in all respect within **12(Twelve)Calendarmonths** from the date of issue of work order.

16. All tenders received will remain valid for 90 days from the last date of receipt of tenders and validity of tenders can also be extended if agreed by the tenderer and the Department.
17. Bidder, whose Tender is going to be accepted must submit a programme of work to TIA before acceptance of Tender.
18. The date of commencement of the work shall be as notified in work order.
19. The Plans, specifications and scope for the work can be seen from the Govt. website during the sale and received period of tender.
20. The bidders shall carefully study the tentative drawing and specification applicable to the contract and documents which will form as part of the agreement to be entered into by the accepted bidders. The detailed standard specifications for Odisha and other said relevant specification and drawings are available for sale. Complain at a future date that plans and specifications have not been seen by the bidders will not be entertained.
21. Every bidder is expected before quoting his rates to inspect the site of the proposed work. He should also inspect the quarries and locality of the work and satisfy himself about the quality and availability of materials including the medical aids, labour and food stuff etc. In every case the materials must comply with the relevant specifications.
- The bidder will be deemed to have Satisfied himself that the Rates quoted by him in the tender will be adequate to complete the work according to the specifications and conditions attached to and that he has taken in to account all conditions, difficulties that may be encountered during its progress and to have quoted labour rates and materials, octroi and other duties, excluding GST but including cess, royalty lead, lifts, de-lifts loading and unloading and 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. Complaints at future date that the availability of materials, labour or any other factor have been misjudged cannot be entertained. It should be understood clearly that no claim whatsoever will be entertained after-wards on the plea of non-availability of proper quantity and quality of materials including food stuff or for any other.
22. Each bidder must quote a definite percentage excess or less up to **two decimal** of the amount of work which will be included in the contract. Tenders containing indefinite terms such as estimated rates or schedules of rates will not be considered. During submission of Bids through the e- Procurement Portal, an intelligent Bill of Quantity in Microsoft Excel format shall be made available to the bidder. The bidder shall fill percentage excess or less of the tender amount 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.
23. Sample of materials such as cement, steel, sand, stone metal and chips etc to be used, are to be collected and deposited quoting the name of quarry under dated initial of the bidder and A.E.E in charge in the office of the **Superintending Engineer, Quality Assurance Division,**

Berhampur, before procurement for testing and acceptance. The conveyance along with all testing charges will be borne by the contractor.

24. All rates should be for finished items of work unless otherwise mentioned in the tender schedule.

25. During submission of Bids through the e-Procurement Portal, the bidder can submit the scanned copy of the documents in the designated locations of Technical Bid and Financial Bid. Submission of document shall be effected by using DSC of appropriate class and thus shall be in encrypted form.

26. -Deleted -.

27. The tender containing extraneous condition not covered by the tender call notice are liable for rejection and quotations should be strictly in accordance with the tender call notice, any change in the wording will not be accepted.

28. During submission of Bids through the e-Procurement Portal, it is allowed to modify the bid. The bidder shall have to log on to the system and resubmit the documents as asked for by the system including the price bid. In doing so, the bids already submitted by the bidder will be removed automatically from the system and the latest bid only will be admitted. But the bidder should avoid modification of bid at the last moment to avoid system failure or malfunction of internet or traffic jam. If the bidder fails to submit his modified bids within the designated time of receipt, the bids already in the system shall be taken for evaluation. During submission of Bids through the e-Procurement Portal, withdrawal of bid is allowed. The bidder has to click on the "withdraw" button and record the necessary justification for the same in the space provided. In addition to this, he has to write a letter addressed to the Officer inviting the bid and upload the scanned document to portal in respective bid. The system shall not allow any withdrawal after expiry of the closure time of the bid.

29. Items of work not covered by the tender notice shall be paid at the current schedule of rates of the state and those not covered by the said schedule rates will be paid, on actual analysis approved by the competent authorities.

30. On no account the contract work should be sublet to anybody without the prior approval of the competent authority of the Department. In such an event the contract may be rescinded with penalty as will be deemed proper as per decision of the competent authority.

31. Letters etc, raising and lowering the rates or dealing with any point in connection with the tender will not be considered.

32. Schedule of quantity accompanies tender notice: - It shall be definitely understood that the Government does not accept any responsibility for the correctness and completeness of this schedule and this schedule is liable for alternations or omissions, deductions or additions as set

forth in the condition of contract and such omission, deductions additions or alternations shall in no way invalidate the contract and no extra monetary compensation will be entertained.

33. The authority reserves the right to make such increase or decrease in the quantity of items of works mentioned in the schedule attached to the tender notice as may be considered necessary for the satisfactory completion of the contract work. All such increase or decrease shall in no way invalidate the contract rates. The contractor shall not be entitled for any compensation on this account, except extension of time where considered necessary.

34. - Deleted -.

35. All taxes, fees, royalties' payable under the local rule including GST, Income taxes Octroi tax. Entry tax etc. will be borne by the contractor.

36. Cess @ 1% will be deducted from the work bill of the contractor as per Resolution No. 12653 dtd.15.12.2008 of Govt. of Odisha, Labour& Employment Department.

37. The earnest money will be retained in case of successful tender and will be dealt with as per the terms and conditions of OPWD code and will not carry any interest. The earnest money of the unsuccessful tender will be refunded after the tender is finally accepted.

38. The Department reserves the right of authority to reject any or all tenders received without assigning any reason whatsoever.

39. That for the purpose of jurisdiction in the event of any dispute if any the contract would be deemed to have been entered in to within the State of Odisha and it is agreed that neither party to the contract will be competent to bring a suit in regard to the matter by this contract at any place outside the state of Odisha.

40. The bidder whose tender is selected for acceptance shall within a period of seven days upon intimation being given to him of acceptance of his tender and sign agreement in the P.W.D. **Form No. P1** for the fulfillment of the contract in the office of the **Superintending Engineer, Harabhangi Irrigation Division, Adava, Dist.- Gajapati** as directed. During submission of Bids through the e-Procurement Portal the system shall generate the award of Contract letter and intimate the bidders in his e-mail. The security deposit and the amount withheld according to the provision of P1 agreement shall be retained as security for the due fulfillment of this contract. The written agreement to be entered in to between the contractor and the Govt. shall be the foundation of the rights of both the contractor and the Govt. and the contract shall be deemed to be in-complete until the agreement has first been signed by the contractor and then by the proper officer authorized to enter into the contract on behalf of the Govt. Security deposit of the contractor shall be refunded only one year after the date of completion of the work provided the final bill has been paid and defects, if any rectified.

41. Under section 12 of contract labour (Regulation and Abolition Act. 1970) the contractor who undertakes execution of work through labour, should produce valid license from licensing authority of labour department (Labour license).
42. The contractor shall be liable to fully indemnify the department of any compensation under workmen compensation Act VIII of 1993 on account of the workmen employed by the contractor and full amount of compensation paid will be recovered from the contractor.
43. Bidders are required to abide by the fair wages clause as introduced by Govt, of Odisha and will not pay less than the fair wages fixed by Govt, to the labourers engaged by him for the work.
44. In case of any complaint by the labourers working about the nonpayment of his wages as per latest minimum wages Act, the Superintending Engineer will have the right to investigate and if the contractor is found to be in default he may recover such amount from the contractor's dues and pay such amount to the labourer directly under intimation to the local labour officer to the govt. The decision of the Superintending Engineer is final and binding on the contractor.
45. The contractor will have to submit the **Superintending Engineer, Harabhangi Irrigation Division, Adava, Dist.- Gajapati** monthly return of labourer both skilled and unskilled employed by him on the work.
46. The contractor should keep himself in touch with the Engineer in charge for smooth execution of the work and arrange adequate labour depending on the workload and working space available. No claim for-detention for labour on any account will be entertained.
47. No compensation will be paid by the department for any damage done by rain, flood, cyclone, tide or by any other natural calamities during the execution of the work.
48. It should be understood clearly that no claim what-so-ever will be entertained in regard to extra items of work or extra quantity of any item besides estimated amount, unless written order is obtained from the Engineer-in-charge and rates settled before the extra items of work or extra quantity of any item of work is taken up.
49. The bidders shall have to abide by the C.P.W.D. safety code rules introduced by the Govt. of India, Ministry of works Housing and Supply in their standing order no.44150 dt.25.1.1957. which can be seen in the office of the **Superintending Engineer, Harabhangi Irrigation Division, Adava, Dist.- Gajapati**/ undersigned on working day, during office hours.
50. The bidders shall bear various incidentals sundries and contingencies necessitated by the work in full within the following or similar category.
- (a) Rent, Royalties and other charges of materials, octroi duty, entry tax and all other taxes including GST, Cess, ferry tolls, conveyance charges and other cost on account of land and building & temporary electric connection to worksite, water charges as well as construction of coffer dam. construction of service road, diversion road and its maintenance till completion of work required by the bidder for collection of materials, storage, housing of staff or other purpose of the

work. No bidder will however be liable to pay for temporary occupation of land owned by Govt. at the site of the work.

(b) Labour camps or huts necessary to a suitable scale including conservancy and sanitary arrangements there in to the satisfaction of the local health authorities.

(c) Suitable water supply including pipe water supply wherever available for the staff and labour as well as for the work.

(d) Fees and duties levied by the municipal canal or water supply authorities.

(e) Suitable equipment and wearing apparatus for the labour engaged in risky operations and medical aid to the labourer engaged for the work.

(f) Suitable fencing, barriers, signals including paraffin and electric signals where necessary at work and approaches in order to protect public and employees from accident.

(g) Compensation including cost of any suit for injury to persons or property due to neglect of any major precautions also become payable due to operation of the workmen compensation Act.

(h) The contractor has to arrange adequate lighting arrangement for the work wherever necessary at his own cost.

51 . All preliminary works such as vats, mixing platforms etc. are to be done by the contractor at his own cost. No payment will be made for bench marks, level pillars, profiles, benching and leveling the ground where require. The rates to be quoted should be before finishing items of work inclusive of carriage of all materials and incidental items of works.

52. After the work is finished all surplus materials, & debris should be removed 100 mtrs clear away from the site of the work. Preliminary work such as vats, mixing platforms etc. should be dismantled and all materials removed from the site and premises left neat and clean and this should be inclusive of the rates,

53. If any further necessary information is required, **Superintending Engineer, Harabhangi Irrigation Division, Adava, Dist.- Gajapati** will furnish such, but it must be clearly understood that the tender must be received in order and according to instruction.

54. The work will be commenced after land acquisition, forest & environment clearance, if required. In case of delay in acquisition of land, forest & environment clearance, no compensation will be admissible but extension of time will be allowed.

55. The department will have the right to supply at any time in the interest of the work any departmental material to be used in the work in addition to those mentioned in clause No-54 and the contractor shall use such materials at the stock issue rate fixed by the Department or market rate whichever is higher.

56. Over and above this condition including the Technical specifications the terms, conditions, rules and regulations and specification laid down in Odisha standard specification code are also binding on the part of the contractor.

57. During submission of bids through e-Procurement portal, the bidder shall upload the scanned copy/copies of documents as required vide clause No. 9 of NIT. The lowest successful bidder shall have to produce the original documents in support of scanned copies & statements up-loaded in the portal as specified in the NIT.

58. No Relation Certificate and No Litigation Certificate

The contractor shall have to furnish certificate along with the tender to the effect that he is not related to any officer in the rank to an Asst. Engineer and above in the state P. W.D., or Under. Secy. and above in the W.R. Department. If the fact subsequently proved to be false the contract will be rescinded. The earnest money and the total security will be forfeited and shall be liable to make good the loss of damage resulting from such cancellation. The proforma for No relation certificate is contained in a separate sheet of D.T.C.N in Annexure-'G'. The proforma for No Litigation Certificate is contained in a separate sheet of D.T.C.N in Annexure-'F'.

The contractor shall sign as a token of final acceptance of the plans, sections and agreements for the work prior to take up the work for execution.

59. The contractor is to supply necessary labour and materials for the purpose of alignment laying whenever required at his own cost.

60. The contractor should arrange necessary tools and plants such as pumps, Road Rollers etc, required for the efficient -execution work at his own cost. The running charges of such plant and cost of consumables and conveyance are to be borne by the contractor.

61. In the event of delay in supply of design reasonable extension of time will be granted on the application of the contractor. But no claim for monetary compensation will be entertained under any circumstance.

62. Under no circumstance, Interest chargeable for the dues to any additional dues, if any payable for the work.

63. Conditional tenders will not be taken into consideration.

64. Deleted

65. Protection against flood: In case of flash and untimely floods in the river during the working season resulting in overtopping of coffer dam and flooding of the work area, the contractor shall make his own arrangement at his cost to shift the machineries, equipments, materials, labour and departmental machineries if hired by the contractor to a safe place. The work shall have to be resumed after resending of floods and necessary strengthening of coffer dam and dewatering will be done by the contractor at his cost. Extension of time for the completion of the work may be considered by the department if the discontinuance of the work is beyond the all-reasonable attempts of the contractor to such eventualities. The debris and other materials accumulated in the

working area during flash floods or regular floods shall be removed by the contractor and necessary strengthening of coffer dam and dewatering will be done by the contractor at his cost.

The debris, and other materials accumulated in the working area during flash floods or regular floods in the monsoon shall be removed by the contractor as required for continuing the work at his own cost. By any chance, if any excavated portion that could not be filled with concrete by the contractor, gets filled up during the monsoon period with earth such removal will not be paid for again. The contractor will have to re excavate the same at his own cost. It shall be distinctly understood that it is entirely the responsibility of the contractor to make such arrangements as may be required from time to time to protect the men, machinery, materials and the work under progress and work for which the measurements were recorded and payment made against damages either during working season or during the flood season.

The flood includes the high tides, cyclonic effects and saline ingress which should be clearly understood by the contractor and no extra payment for the damage, re-excavation etc. shall be paid in any circumstance. The department accepts no liability what -so-ever for any damage or loss of men, materials, machinery and work of hindrance caused to the progress of work. The contractor should provide at his own cost adequate protection measures to the completed works at the end of working season or work in progress against the probable flood during monsoon till completion and handing over of the entire work.

67. Dewatering from the foundation for bridges, culverts, building worksites, all canal structures etc and watering for consolidation in roads embankments when and where necessary during execution will have to be done by the contractor and no extra payment will be made on that account. The term dewatering shall mean the execution or operation of the items due to standing water as well as due to percolation water.

68. The required amount (As fixed by Govt.) of the gross amount of the bill be deducted from the contractors bill towards income tax & cess as amended from time to time.

69.(a) The rates quoted by the contractor should be inclusive of all taxes but exclusive of GST.

(b) Deduction of GST & other taxes at source shall be made as notified by Govt. of Odisha from time to time and no extra claim towards such deduction (GST & other taxes) shall be entertained.

(c) GST on works contract will be deducted from the bill @ as amended from time to time and credited to Govt. account.

70.(a) The contractors are required to pay the Royalty to Govt. as fixed from time to time and produce such authenticated documents in support of their payment as royalty along with their bills failing which the amount of royalties of different materials as utilized by them in the work will be recovered from their bills. **(b)** 1% of the gross amount of bills shall be deducted from the contractor towards cess as amended from time to time.

71. Additional Performance Security (APS) shall be obtained from the bidder when the bid amount is less than the estimated cost put to the tender. In such an event, only the successful bidder who has quoted less bid price/ rates than the estimated cost put to tender shall have to furnish the exact amount of the APS in the rates as noted below.

As per the Govt. of Odisha, Works Department Office Memorandum No. 07764600022025-173/W., Bhubaneswar dated 03.01.2026: Additional performance security shall be taken on an incremental basis from the selected bidder for low bid prices in the project works as under

- I. **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.
- II. **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:
- III. **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:
- IV. 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.
- V. The additional performance security shall be treated as part of the performance security.
- VI. Justification for abnormally low bids shall be scrutinized by the Departmental Technical Committee and recommended to the competent authority of the Administrative Department for the approval of the Additional Performance Security (APS). An abnormally low bid is one in which the Bid price, in combination with other elements of the Bid, appears so low that it raises material concerns as to the capability of the Bidder to perform the contract at the offered price. Procuring Entity may, in such cases, seek written clarifications from the Bidder, including detailed price analyses of its Bid price in relation to scope, schedule, resource mobilization, allocation of risks and responsibilities, and any other requirements of the bid document., If, after evaluating the price analyses, the procuring entity determines that the Bidder has substantially failed to demonstrate its capability to deliver the contract at the

offered price, the Procuring Entity may reject the Bid/Proposal. However, it would not be advisable to fix a normative percentage below the estimated cost, which would automatically be considered as an abnormally low bid.

The successful bidder shall furnish Additional Performance Security (APS) in shape of Term Deposit Receipt duly pledged/ Bank Guarantee duly issued in favour of the of respective Superintending Engineers mentioned in the table below 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) by the Divisional Officer (By e-mail) otherwise the bid will be cancelled & he/ she will be suspended for the time specified in the tender document. Further, proceeding for blacklisting shall be initiated against the bidder. If the APS is submitted in shape of Bank Guarantee, then the validity of the Bank Guarantee should be for a minimum period equal to the period allowed for completion of the work plus defect liability period of one year and one month extra for transaction period.

Work Sl. No	Bid I.D. No.	Name of Superintending Engineer in whose favour the APS shall be prepared.
1	ACE, VNB(HID) – 06/ 2026-27	Superintending Engineer, Harabhangi Irrigation Division, Adava, Dist.- Gajapati.
2	ACE, VNB (HID) –07/2026-27	

Exact amount of Additional Performance Security (APS) shall be furnished in shape of Term Deposit Receipt pledged in favour of **Superintending Engineer, Harabhangi Irrigation Division, Adava, Dist.-Gajapati** / Bank Guarantee in favour of the **Superintending Engineer, Harabhangi Irrigation Division, Adava, Dist.-Gajapati for Bid ID at SINo1 and Sl. No 2** 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) by the Divisional Officer (By e-mail) to the successful bidder otherwise his/her bid shall be cancelled & he/she will be suspended for the time specified in the tender document. Further, proceeding for blacklisting shall be initiated against the bidder. If the APS is submitted in shape of Bank Guarantee by the bidder, then the validity of the Bank Guarantee should be for a minimum period equal to the period allowed for completion of the work plus defect liability period of one year and one month extra for transaction period.

72. The bidder whose tender is selected for acceptance shall within a period of seven days upon intimation being given to him of acceptance of his tender make an initial security deposit in the form of NSC, postal time deposit, Post Office Bank Account / Term Deposit Receipt of Schedule

Bank/ Kisan Vikas Patra duly pledged in favour of the **Superintending Engineer, Harabhangi Irrigation Division, Adava, Dist.- Gajapati** and in no other form shall be 2% of the value of the accepted tendered amount (including EMD) and sign agreement in the P.W.D. form No. P1 (Schedule XLV No.61) for the fulfillment of the contract in the office of the **Superintending Engineer, Harabhangi Irrigation Division, Adava, Dist.- Gajapati**.

73. Providing facilities to the Engineer Contractor:

As per works Deptt. No. FR11/2001/1 0003/00 BBSR 24.5.2001, 5% price preference allowed to the Engineer contractor in the tender rates has been withdrawn.

74. On no account of the contracted work should be sublet to any body without the prior approval of the tender accepting authority of the Department. In such an event the contract may be rescinded with penalty as will be deemed proper by the competent authority.

75. Miscellaneous:

(a) The department will have the right to inspect the scaffolding and centering made for the work and reject partly or fully such structures if found defective in their opinion.

(b) Shuttering and centering shall be made with seasoned sal wood planks the inside of which shall be lined with suitable sheeting and make leak proof and water tight or alternatively steel shuttering and centering may be used.

76. Tenderers are also required to go through each clause of P.W.D. Form P1 carefully in addition to the clause mentioned herein before tendering.

77. The contractor shall have to submit an affidavit about authentication of tender documents, while submitting tender (As per Annexure-E1).

78. All the forms and Annexure and check list attached to section 2 of this DTCN may be filled in properly along with the authenticated documentary evidence if any required therein.

79. Bidders desirous to avail exemption / relaxation of E.M.D. as per prevailing rules should upload copies of necessary document and affidavit in support of their claim along with their bid.

Bidders registered as "Engineer Contractor" desirous to avail exemption of EMD for participating in the bid shall have to upload an affidavit mentioning the number of tendered works already awarded to him/her without EMD during the current financial year. In case of non submission of the above affidavit, his/her claim for availing the benefits of Engineer Contractor will not be considered. The successful Engineer Contractor has to produce the original Registration Certificate for recording the fact of availing exemption of E.M.D. for award of the work. Bidders registered as S.C. & S.T. Contractor up to "B" Class Contractor, desiring to avail concession(s)/ price preference as per prevailing rules should apply for the same in writing in shape of Affidavit and upload necessary document and affidavit in support of their claim along with

their bid, failing which their case may not be considered for availing price preference as per the rule. No claim in this regard after opening of the bid will be entertained.

80. In case, lottery is inevitable for finalization of tender, then the tender accepting authority will finalize the tender through a transparent lottery system, where qualified bidders/their authorized representatives, will remain present. The lottery will be held in the office of the ACE, VNB, Paralakhemundi.

81. The contractor will submit invoice towards payment of GST to appropriate authority and claim for reimbursement of the same separately, which will be dealt with as per prevailing rules.

82. All correspondence with the tenderer will be made through e-mail in the e-mail address given by the tenderer. The tenderer must mention in the tender, his correct e-mail address where letters can be delivered to him. The department will not be held responsible for non-receipt of any letter/message by the tenderer either for wrong e-mail address given by him or for his negligence in seeing e-mail.

83. The bidders are requested to mention their e-mail address, phone Number and Address for correspondence in the furnished Affidavit or in a separate sheet.

84. Registration in the Contractor Data Base Management System (CDMS) available in www.cdmsodisha.gov.in by all Contractors is mandatory (As per O.M. No. 12934/W dated 23.08.2018 of Works Department, Govt. of Odisha with insertion of provision in Para - 12.4 below Para -12 in Appendix - IX(A) of the OPWD Code, Volume-II. The tender will not be accepted or bid will be rejected if not registered under CDMS portal by dt: 31.12.2020.

**Superintending Engineer
Harabhangal Irrigation Division
Adava**

Paralakhemundi

**Additional Chief Engineer,
Vansadhara Nagabali Basin,**

SECTION - 2

INFORMATION AND INSTRUCTION TO TENDERERS

1. Preparation of Tender Documents

The intending bidder shall log in to the e-procurement portal identified as <http://tendersorissa.gov.in> and download the Technical Bid (Cover-I) and Price Bid (Cover-II). As per the requirement of the bid document, the bidder will fill up the required information and fill up the percentage excess or less on the intelligent MS Excel sheet. Any discrepancy in figures and words then words will be the final and binding. The bidder is to scan his registration certificate, GSTIN, PAN Card, Affidavit, labour license, No relation certificate and certificate issued by competent authorities required for full filling the minimum qualification criteria specified in the bid document for the work. The bidder is also required to scan the RC books and other papers relating to the machineries and other documents as specified in the bid document.

2. Method of submission of Tender Documents

- 2.1 The bidder shall upload the scanned copy / copies of the documents and information as per requirement of the bid documents through the e-procurement portal. All documents and scanned copies are to be uploaded in the designated location technical bid (Cover-I) except the filled up intelligent excel sheet. The filled up intelligent bill of quantities in Excel format will be uploaded in the designated location of price bid (Cover-II). The bidder is required to upload the required documents in appropriate location of Technical and Financial bid failing which the bid will be rejected. All the uploaded documents should be clear and legible. Before activating the submit button the clarity of the document may be ensured by taking out a sample copy. In the e-procurement tendering system the bidder is required only to submit the required information as per bid document instead of submitting the entire bid document. The "online" bidder shall digitally sign on all statements, documents, clarifications uploaded by him owning responsibility for their corrections / authenticity. If any of the information furnished by the bidder is found to be false / fabricated / bogus, the bidder will be black listed and his EMD / Bid Security will be forfeited.
- 2.2 The information required as per bid documents may be provided in the specified format annexed to the bid document.
- 2.3 If the intending bidder is an individual, the documents shall be digitally signed by the individual while uploading the tender through e-procurement portal.
- 2.4 If the intending tender is a proprietary firm it shall be digitally signed by the proprietor while uploading the tender through e-procurement portal.

- 2.5 If the intending bidder is a firm in partnership it shall be digitally signed by a partner holding the power of attorney to bidder or to the firm in partnership in which case a certified copy of power of attorney shall accompany in the technical bid documents.
- 2.6 If the intending bidder is a limited company or Corporation, it shall be digitally signed by a duly authorized person holding the power of attorney in which case certified copy of power of attorney bidder shall accompany.
- 2.7 All witness and sureties shall be of person of status and probity and their full names, occupation and address shall be stated below in the appropriate place.
- 2.8 The agency will install display board mentioning information about the work at worksite after drawl of the agreement at his own cost.
- 2.9 Codal / contractual provisions regarding Price adjustment in Works contract is applicable as per O.M No-15847/W dated 19.11.2019 of Works deptt., Govt. of Odisha.
- 2.10 Bids from joint venture are not acceptable.

3. Opening of Tender Documents.

The technical bids will be opened on **30.09.2026 at 11.00 AM in the Office of the Additional Chief Engineer, Vansadhara, Nagabali Basin, Paralakhemundi** in the presence of bidders or their authorized representative, who wish to be present.

4.0- Minimum Qualifying Criteria

I. Double cover system:

Double cover system of tendering should be resorted to for works value above 50 lakh rupees. The two covers would contain the following:-

1st Cover (Technical):

Tender cost, Required EMD/Bid Security & Bid cost online, GSTIN, PAN, Contractor's RC, Affidavit, Undertaking declaring no relationship with Department officials, no litigation certificate and any other document as per SBD/DTCN (in pdf format).

2nd Cover (financial):

Bill of Quantities (BOQ) (in xls format)

II. Classification of works:

The nature and type of works executed under Department of Water Resources are divided into following two categories. **Category 1:**

For specialized nature of works like Dam/ Barrage/ Spillway/Tunnel/ Head Regulator of Dam and Barrage.

Category 2:

All other works excluding category-1 such as excavation of canals, Canal Lining, Syphon, Aqueduct, Bridges, Modernization/ Renovation of Canals including all structures etc.

III. Eligibility Criteria for Bidders:

(A) Tender for works value above Rs. 50.00 lakh and up to 7.00 Cr.

Irrespective of the nature of work either Category-1 or Category-2 as above shall have no qualifying criteria, except tender cost, EMD, valid RC, GSTIN and PAN No., Affidavit, undertaking regarding no relationship certificate, no litigation certificate which are mandatory.

(B) Tender for the work value above Rs. 7.00 cr. up to Rs. 20.00 cr.

Work value costing above Rs. 7.00 cr. and up to Rs. 20.00 cr., both Category-1 and Category-2 shall have 3 (three) qualifying criteria i.e. Bid Capacity, Satisfactory completion of similar major items of works (quantity turnover) and Combined evaluation, if applicable.

(C) Tender for work value above Rs. 20.00 cr.

- For works in **Category -1**: Satisfactory completion of similar work, Annual Turn-over, satisfactory completion of similar major items of works (quantity turnover), Availability of Plant and Machineries, Credit facility, Bid capacity and Combined evaluation, if applicable. **NOT APPLICABLE**
- For works in **Category -2**: Annual Turnover, Satisfactory completion of similar major items of work, Availability of Plant & Machineries, Credit facility, Bid capacity, combined evaluation, if applicable.

4.1 Satisfactory completion of similar work

Satisfactorily completed (not less than 80% of the original contract value) Prime contractor of at least one similar work of value not less than Rs. _____ amount mentioned here should be 40% of the proposed contract value) at FY _____ (For invitation of tender) price level in any one year of the last five years (5 years prior to the FY of inviting of tender & including current FY) i.e. from FY _____ to FY _____ invitation of tender (Attested copy of certificate of authenticity is to be enclosed from the concerned Superintending Engineer / Competent Officer in charge of execution. The detailed correspondence address/ fax number of the authority issuing certificate shall be furnished). Weightage of 10% per year shall be give on cost of satisfactorily completed work of previously years to bring them to the current price level. Failure to submit proof in support will result in non-consideration of the tender.

Similar work means:

For execution of Earth Dam: The bidder should have executed

- For execution Concrete Dam/ Masonry Dam/ Barrage/ Spillway, executed Concrete/Masonry Dam/ Barrage/Spillway
- For execution of Tunnel work: The Bidder should have execute.
- Head Regulator/Bridges/Cross Drainage work: The Bidder should have executed Dam Barrage/ Head Regulator/ Bridges/ Weirs/ Aqueduct/
- Earth work in Canal: The Bidder should have
- Cement Concrete Lining & structures: Plain
- Stone work: Dam riprap, Packing, Spur, apron, Armory stone dumping/ stone gabions are similar work.

4.2 Annual turnover

To qualify for award of the contract, each bidder in the name should have in the last five years prior to the FY of invitation of tender (from FY **0000-00** to FY **0000-00**) achieved minimum Annual turnover (in all classes of Civil Engineering Construction works only) of Rs. **0.00** lakhs at **000000** price level in any one financial year (attested copy of certificate of authenticity is to be enclosed from the appropriate authority). Weight age of 10% per year shall be given on financial turnover of previous years to bring them to **0000-00** Price level

4.3 Satisfactory completion of similar items of work :

The bidder should have executed minimum quantities of important & critical items of work like cement concrete (both plain RCC), Earth work in both Excavation and embankment masonry and other major items etc.

The value of minimum quantities of important and critical items of works:

- 1.
- 2.

The bidder should submit self-attested copy of certificate of authenticity in the enclosed bidding document from the concerned Superintending Engineer/ Competent Officer in charge of execution regarding execution of major items of works during the last 5 years prior to the financial year of invitation of tender and current financial year. (From FY **2020-21** to FY **2024-25**).

4.4 Availability of Plant & Machineries

The bidder should produce documentary evidence regarding availability of key plant and machineries and equipment working condition required for execution of the work (either owned in his name or obtain on hire purchase scheme or by hiring from the reputed firms/contractors firms). If the machinery are to be procured for specific period for completion of the work on lease / rental basis, then a copy of MOU/Affidavit must be attached. The Engineer-In-Charge of the project/work shall prepare list of construction equipment required for execution of the work based on the estimated quantity of important and critical work items/time of completion, considering the mode of execution of different items of work. The contractors should attach an affidavit that the plant and machineries/ equipments are free and will be available during execution of work.

4.5 Credit Facilities:

The Firm must possess Credit facilities of not less than **Lakhs** and furnish the credentials from any scheduled commercial bank along with the bid against the specific work by mentioning the name of work and tender identification number in prescribed Proforma as given below. **Not furnishing the exact Bank certificate as given below, the bid will be liable for rejection.**

BANK CERTIFICATE

This is to certify that M/s is reputed company with a good financial standing.

If the contract for the work, namely ("[Insert name of the work]" is awarded to the above firm, we shall be able to provide overdraft / credit facilities to the extent of Rs..... (in words) to meet their working capital requirement for excluding the above work.

Signature & seal of Bank Manager
Name & Address of Bank

4.6 CombinedEvaluation :

If the bid has been invited in a common tender call notice for a number of works, the order of opening of the bids shall be that in^M/they appear in the ' Invitation for Bids Further, the bidder(s) must demonstrate having experience and resources sufficient to meet the aggregate of the qualifying criteria for the individual contracts for value above 7.00 cr.

4.7 Sub- Contractor's experience:

Experience Certificated based by Superintending Engineer to State PSUs and Experience Certificates issued by State PSU to their sub-contractor, shall be taken into consideration, while examining qualifying criteria. The Experience Certificates issued by State PSUs must carry the counter signature of the concerned Engineer In-Charge not below the rank of Superintending Engineer. In that case, both the original State PSU and the authorised Sub-Contractor will be treated at par as prime contractor.

4.8 Bid Capacity:

Applicants will be qualified only if their available bid capacity at the time of bidding is more than the total estimated cost of the work. The available bid capacity will be calculated as under.

Assessed Available Bid Capacity = (AxBx2-B), where

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

B = Value at **current** price level of existing commitments and ongoing works to be completed during the next **7 Months** (period of completion of works for which bids are invited). Number of years prescribed for completion of the work for which the bids are invited.

Notes:-In case of joint venture, **if permissible as per DTCN**, the available bid capacity will be applied for each partner to the extent of his proposed participation in the execution of the works. In case the extent of participation is not mentioned, the proposed participation in the execution of the work shall be considered as equal for all the partners.

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 Superintending Engineer.

5.0 Final Decision making authority

The competent authority reserves the right to accept or reject or disqualify any of the tender without assigning any reasons and its decision shall be final.

6. Further clarification

The **Superintending Engineer, Harabhangi Irrigation Division, Adava, Dist.-Gajapati** may be contacted during office hours on any working days for any further clarification. The bidder can also seek clarification through the portal within seven days from the start of sale of bid documents. The officer inviting the tender will respond for the queries raised by the bidder through the same portal.

7. Odisha Bridge and Construction Corporation Ltd. will be allowed price preference up to 3% over the lowest quotation or tender laid down in Works and Transportation Department, Resolution No. 285 dated 17.04.1974. The Odisha Construction Corporation will be allowed a price preference to the extent 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.
8. **Sample of Material**
The contractor shall supply sample of all materials before procurement for the work for testing and acceptance at his own cost as may be requiring by the concerned **Superintending Engineer**.
9. **Trial boring** - The foundation level as indicated in the body of departmental drawing is purely tentative and further general guidance only. The Department has no responsibility for the suitability of actual strata at the foundation level. The contractor has to conduct his own boring before starting the work and get the sample tested at his own cost to ascertain the SBC and credibility of strata at foundation level while quoting his rates for tender the contractor shall take in to account for the above projects.
10. The site from the commencement of works to the completion of the same, there to be under the contractors. The contractor is to be held responsible to make good to all injuries, damages and repairs occasioned or re-tendered. 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 anyone in his employment during the execution of the work. Also no claim shall be entertained for loss due to earth quake, flood, cyclone, epidemic, riot or any other calamity whether natural or incidental damaged so caused will have to be made good by the contractor at his own cost.
11. Where it will be found necessary by the Department, the Officer-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 his 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 his 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.

12. The bidder should conduct three bores at pier and SBC of soil at foundation level and abutments location and furnish the test result in conformity with IRC code at his own cost before execution of the work and rates quoted by the contractor should be inclusive of such bores and SBC tests etc. without any extra cost to the Department.

13. Executive instructions regarding calling for and acceptance of tenders in e-Procurement.

(As per Works Department Office Memorandum File No. 07556900042015(Pt-II)-7885/W, dtd.23.07.2015)

1. This office memorandum consists of the procedural requirement of e-procurement and shall be made part of the Detailed Tender Call Notice or Instruction to Bidder for all "works" tenders hoisted in the portal.
2. The e-procurement portal of Government of Odisha is "[https:// tendersodisha.gov.in](https://tendersodisha.gov.in)".
3. Use of valid Digital Signature Certificate of appropriate class (class II or class III) issued from registered certifying authorities (CA) as stipulated by Controller of Certifying Authorities (CCA), Government of India such as n-Code, Sify, TCS, MTNL, e-Mudhra is mandatory for all users.
4. The DSC issued to the Department users is valid for the period of two years only. All the Department users are responsible to revalidate their DSC prior to expiry.
5. For all purpose, the server time displayed in the e-procurement portal shall be the time to be followed by all the users.
6. Government after careful consideration have decided to hoist all tenders costing 10 lakhs or above in the e-procurement portal. This will be applicable across all Engineering Departments such as Works Department, Department of Water Resources, Rural Development and Housing & Urban Development Department. Government of Odisha also welcomes hoisting of tenders by any other departments, authority, corporations, local bodies etc. of the State with prior approval from Works Department. Works Department is the Nodal Department for the implementation of e-procurement in the State.
7. The e-procurement shall be operated compliant to relevant provisions of OGFR/OPWD code / Accounts code / Government statutes including any amendments brought from time to time to suit to the requirement of the best national practice.
8. Registration in the e-procurement portal is without levy of any charges but Government reserves the right to levy any charges for such value added services in future.
9. Contractor not registered with Government of Odisha, can participate in the e-Procurement after necessary enrolment in the portal but have to subsequently register themselves with the appropriate registering authority of the State Government before award of the work as per prevalent registration norms of the State.
10. For the role management "Department" is the Administrative Department, Organisation or wing is the Chief Engineer or highest tender accepting authority or equivalent officer, Division is the Superintending Engineer or equivalent officer and Subdivision is the Assistance Engineer or equivalent officer.

11. The e-Procurement software assigns roles for operation of the module for specific function. The terminologies used in the portal and their respective functions in the software are as follows.
 - 11.1 Application Administrator (NIC & State Procurement Cell)
 - i. Master Management
 - ii. Nodal Officer Creation
 - iii. Report Generation
 - iv. Transfer of Officer's login ID.
 - v. Blocking & unblocking of officer's and bidder's login ID.
 - 11.2 Nodal Officer (At organization level not below the Superintending Engineer or equivalent rank)
 - i. Creation of Users
 - ii. Role Assignment
 - iii. Report Generation
 - iv. Transfer of Officer's login ID.
 - v. Blocking & unblocking of officer's Login ID.
 - 11.3 Procurement Officer-Publisher (Officer having tender inviting power at any level)
 - i. Publishing of Tender
 - ii. Publishing of Corrigendum / addendum / cancellation of Tender
 - iii. Bid Clarification
 - iv. Uploading of Pre-Bid minutes.
 - v. Report generation.
 - 11.4 Procurement Officer-Administrator (Generally sub-ordinate officer to Officer Inviting Tender)
 - i. Creation of Tender
 - ii. Creation of Corrigendum / addendum / cancellation of Tender
 - iii. Report generation.
 - 11.5 Procurement Officer Opener (Generally sub-ordinate officer to Officer Inviting Tender) i. Opening of Bid
 - 11.6 Procurement Officer Evaluator (Generally Sub-Ordinate Officer to Officer Inviting Tender) i. Evaluating Bid
 - 11.7 Procurement Officer-Auditor (Procurement Officer Publisher and / or Accounts Officer / Finance Officer)
 - i. To take up auditing
12. NOTICE INVITING BID (NIB) or INVITATION FOR BID (IFB) :

12.1 The Notice Inviting Bids (NIB) and Bid documents etc., shall be in the Standard formats as applicable to conventional Bids and will be finalized / approved by the officers competent as in the case of conventional Bids.

12.2 The officers competent to publish NIB in case of conventional Bids will host the NIB in portal. Simultaneously, a notification should also be published in the newspapers, as per existing rules preferably, in the following format, to effect economy:-

Government of Odisha "e" procurement Notice

Bid Identification No.

1. Name of the work:
2. Estimated cost: '
'
3. Period of completion
4. Date & Time of availability of bid document in the portal --
5. Last Date / Time for receipt of bids in the portal
6. Name and address of the O.I.T

Further details can be seen from the e-procurement portal "[https:// tendersodisha.gov.in](https://tendersodisha.gov.in)"

12.3 The **tender** documents published by the Tender Inviting Officer (Procurement Officer Publisher) in the website <https://tendersodisha.gov.in> will appear in the "Latest Active Tender". The Bidders / Guest Users can download the Bid documents only after the due date & time of sale. The publication of the tender will be for specific period of time till the last date of submission of bids as mentioned in the 'Notice Inviting Bid' after which the same will be removed from the list of "Latest Active tenders".

13. ISSUE OF ADDENDA / CORRIGENDA / CANCELLATION NOTICE :

13.1 The Procurement Officer Publisher (Officer Inviting Tender) shall publish any addendum / corrigendum / cancellation of tender in the website <https://tendersodisha.gov.in> notice board and through paper publication and such notice shall form part of the bidding documents.

13.2 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.

14. CREATION AND PUBLISHING OF BID :

14.1 All the volumes / documents shall be uploaded in the portal by the tender creating officer (Procurement Officer Administrator) and published by the Officer Inviting Tender (Procurement Officer Publisher) using their DSCs in appropriate format so that the document is not tampered with.

14.2 The tender document comprise the notice inviting tender, bid document / SBD, drawings in .pdf format and schedule of quantities / BoQ in .xls format to be uploaded by the Officer Inviting Tender.

14.3 Procurement Officer Administrator creates tender by filling up the following forms :

i. BASIC DETAILS

ii. COVER CONTENT: The Procurement Officer Administrator should briefly describe the name and type of documents to be uploaded by the bidder in the following format:

(a) For Single Cover / Packet: *(Modified vide Office Memorandum No. 11774/W/dated 03.08.2017 of Works Department)*

Sl. No.	Cover Type	Document Description	Ty
1.	Fee / Prequal / Technical / Finance	GSTIN, PAN, Contractor RC	.pdf
		Affidavits, undertakings and any other document as per SBD/DTCN	.pdf
		BoQ	.xls

(b) For Double Cover / Packet : *(Modified vide Office Memorandum No. 11774/W/dated 03.08.2017 of Works Department)*

Sl. No.	Cover Type	Document Description	Type
1.	Fee / Prequal / Technical	GSTIN, PAN, Contractor RC	.pdf
		Affidavits, undertakings and any other document as per SBD/DTCN	.pdf
2.	Finance	BoQ	.xls
		Special condition if any specifically mentioned by Office Inviting Tender	.pdf

iii. TENDER DOCUMENT: The Procurement Officer Administrator should upload the NIT in .pdf format.

iv. WORK ITEM DETAILS

- v. **FEE DETAILS :** The procurement Officer Administrator should mention the cost of tender paper and EMD amount to be paid online as per Works Department Office Memorandum No. 17254/WDt. 05.12.2017 and as laid down in DTCN/SBD.

The Bidder shall also have to furnish as part its Bid, the Additional Performance Security (if any) as per the Work Department Office Memorandum No. 14299/W dated 03.10.2017.
- vi. **CRITICAL DATES:** The Procurement Officer Administrator should mention the critical dates of tender such as publishing date, document download start date & end date, seek clarification start date & end date (optional), bid submission start date & closing date, bid opening date as per DTCN/SBD.
- vii. **BID OPENER SELECTION:** The Procurement Officer creator can select two / three / four bid openers for a particular bid. If required the bid openers can also be selected within an organization from other procurement units (Circles / Divisions).
- viii. **WORK ITEM DOCUMENTS :** The Procurement Officer Administrator should upload the digitally signed tender document (SBD/DTCN) or any other addition document / drawings in .pdf format and Bill of Quantities in .xls format.
- ix. **PUBLISHING OF TENDER :** The Procurement Officer Publisher shall publish the tender using his / her DSC after detail scrutiny of the fields created and documents uploaded by the Procurement Officer Administrator. Procurement Officer Publisher can publish tenders for multiple procurement units using multiple DSCs procured for each post separately. After being relieved from the additional charges he has to surrender the additional DSCs to the Nodal Officer of the concerned organization.

15. **PARTICIPATION IN BID :**

- 15.1 **PORTAL REGISTRATION :** The Contractor / Bidder intending to participate in the bid is required to register in the portal using his / her active personal / official e-mail ID as his / her Login ID and attach his / her valid Digital Signature Certificate (DSC) to his / her unique Login ID. He / she 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 certificate / documents such as (i) PAN and (ii) Registration Certificate (RC) / GSTIN (for procurement of goods) of concerned bidder. The time period of validity in the portal is at par with validity of RC / GSTIN. Any change of information by the bidder is to be re-authenticated by State Procurement Cell. After successful authentication bidder can participate in the online bidding process.
- 15.1.1 Bidders 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.
- 15.1.2 Any third party / Company / Person under service contract for operation of e-Procurement system in the State or his / their subsidiaries or their parent companies shall be ineligible to

participate in the procurement process that are undertaken through the e-Procurement system irrespective of who operates the system.

- 15.2 LOGGING TO THE PORTAL : The Contractor / Bidder is required to type his / her Login ID and password. The system will again ask to select the DSC and confirm it with the password of DSC as a second stage authentication. For each login, a user's DSC will be validated against its date of validity and also against the Certificate Revocation List (CRL) of respective CAs stored in system database. The system checks the unique Login ID, password and DSC combination and authenticates the login process for use of portal.
- 15.3.1 DOWNLOADING OF BID: 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.
- 15.4 CLARIFICATION OF BID : 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 the Tender Call Notice / Bid. The Officer Inviting the Bid / Procurement Officer-Publisher will clarify queries related to the tender.
- 15.5 PREPARATION OF BID
 - 15.5.1 The bids may consist of general arrangements drawings or typical or any other drawings relevant to the work for which bid has been invited. Bidder may download these drawings and takeout print for detail study and preparation of his bid. Any other drawings and documents pertaining to the works available with the Officer Inviting the bid will be open for inspection by the bidders.
- 15.3 LOGGING TO THE PORTAL : The Contractor / Bidder is required to type his / her Login ID and password. The system will again ask to select the DSC and confirm it with the password of DSC as a second stage authentication. For each login, a user's DSC will be validated against its date of validity and also against the Certificate Revocation List (CRL) of respective CAs stored in system database. The system checks the unique Login ID, password and DSC combination and authenticates the login process for use of portal.
- 15.3.2 DOWNLOADING OF BID: 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.
- 15.6 CLARIFICATION OF BID : 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 the Tender Call Notice / Bid. The Officer Inviting the Bid / Procurement Officer-Publisher will clarify queries related to the tender.
- 15.7 PREPARATION OF BID
 - 15.5.2 The bids may consist of general arrangements drawings or typical or any other drawings relevant to the work for which bid has been invited. Bidder may download these drawings and takeout print for detail study and preparation of his bid. Any other drawings and documents pertaining to the works available with the Officer Inviting the bid will be open for inspection by the bidders.
 - 15.5.3 The Bidder shall go through the Bid carefully and list the documents those are asked for submission. He shall prepare all documents including declaration form, price bid etc and store in the system. *(Modified vide Office Memorandum No. 11774/W/03.08.2017 of Works Department.)*
 - 15.6 Payment of cost of bid documents and "Bid Security Declaration" to be furnished as per OM No.8943/F dt. 18.03.2021 of Finance Department, Govt. of Odisha.
 - 15.6.1 The Bidder shall transfer the Tender Paper cost online as part of its Bid, as mentioned under DTCN/SBD through a process mentioned in Works Department Office Memorandum No. 17254/W/ dt. 05.12.2017.

15.6.2 Also, the Bidder must furnish "Required EMD/Bid Security & Bid cost online" as per Finance Department, Govt. of Odisha.

The Bidder shall also have to furnish as part of its Bid, the Additional Performance Security (if any) as mentioned in the DTCN/SBD and as per Work Department Office Memorandum No. 4559/Wdated 05.04.2021.

15.6.3 DELETED. *(Modified vide Office Memorandum No. 11774/W/03.08.2017 of Works Department)*

15.6.4 The tender accepting authority will verify the originals of all the scanned documents of the successful lowest bidder only within 5 days of opening of the tender. 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.

15.6.5 Contractor exempted from payment of EMD will be able to participate in the tender directly by uploading documentary evidences towards his eligibility for such exemption.

15.6.6 DELETED. *(Modified vide Office Memorandum No. 11774/W/03.08.2017 of Works Department)*

16. SUBMISSION OF BID:

16.1

The bidder shall carefully go through the tender and prepare the required documents. The Bid shall have a Technical Bid and Financial Bid. The Technical Bid generally consist of GSTIN, PAN/TIN, Registration certificate, Affidavits, Profit Loss Statements, Joint Venture Agreement. List of similar nature works, work in hand, list of machineries and any other information required by OIT. The financial bid shall consist of the Bill of Quantities (BOQ) and any other price related information / undertaking including rebates. *(Modified vide Office Memorandum No. 11774/W/03.08.2017 of Works Department)*.

16.2 Bidder are to submit only the original BoQ (in .xls format) uploaded by Procurement Officer Publisher (Officer Inviting Tender) after entering the relevant fields without any alternation / deletion / modification. Multiple BoQ submission by bidder shall lead to cancellation of bid. In case of item rate tender, bidders shall fill in their rates other than zero value in the specified cells 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.

16.3 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.

16.4 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 item(s) without any blank cell in the rate column in case of item rate tender & type percentage excess or less up to two decimal place only in case of percentage rate tender.

- 16.5 The bidder shall log on to the portal with his / her DSC and move to the desired tender for up loading the documents in appropriate place one by one simultaneously checking the documents.
- 16.5.1 Bids cannot be submitted after due date and time. The bids once submitted can not be viewed, retrieved or corrected. The Bidder should ensure correctness of the bid prior to uploading and take print out of the system generated summary of submission to confirm successful uploading of bid. The bids cannot be opened even by the OIT or the Procurement Officer Publisher / opener before the due date and time of opening.
- 16.5.2 Each process in the e-procurement is time stamped and the system can defect the time of log in of each user including the Bidder.
- 16.5.3 The Bidder should ensure clarity / legibility of the document uploaded by him to the portal.
- 16.5.4 The system shall require all the mandatory forms and fields filled up the contractor during the process of submission of the bid / tender.
- 16.5.5 The Bidder should check the system generated confirmation statement on the status of the submission.
- 16.5.6 The bidder should upload sufficiently ahead of the bid closure time to avoid traffic rush and failure in the network.
- 16.5.7 The Tender Inviting Officer is not responsible for any failure, malfunction or breakdown of the electronic system used during the e-procurement process.
- 16.5.8 The bidder is required to upload documents related to his eligibility criteria and qualification information and Bill of Quantity duly filled in. it is not necessary for the part of the Bidder to upload the drawings and the other Bid documents (after signing) while uploading his bid. It is assumed that the bidder has referred all the drawings and documents uploaded by the Officer Inviting the Bid.
- 16.5.9 The Bidder will not be able to submit his bid after expiry of the date and time of submission of bid (server time). The date and time of bid submission shall remain unaltered even if the specified date for the submission of bids declared as a holiday for the Officer Inviting the Bid.
- 16.6 SIGNING OF BID : The 'online bidder' shall digitally sign on all statements, documents, certificates uploaded by him, owing responsibility for their correctness / authenticity as per IT ACT 2000. If any of the information furnished by the bidder is found to be false / fabricated / bogus, he will be suspended for the time specified in the tender document as per OM No. 8942/F dt. 18.03.2021 of Finance Department, Govt. of Odisha & his registration in the portal shall be blocked and the bidder is liable to be blacklisted.

17. SECURITY OF BID SUBMISSION

- 17.1 All bid uploaded by the Bidder to the portal will be encrypted.
- 17.2 The encrypted Bid can only be decrypted / opened by the authorised openers on or after the due date and time.

18 RESUBMISSION AND WITHDRAWAL OF BIDS :

- 18.1 Resubmission of bid by the bidders for any number of times before the final date and time of submission is allowed.
- 18.2 Resubmission of bid shall require uploading of all documents including price bid afresh.
- 18.3 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.
- 18.4 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.
- 18.5 The Bidder can withdraw his bid before the closure date and time of receipt of the bid by uploading scanned copy of a letter addressing to the Procurement Officer Publisher (Officer Inviting Tender) citing reasons for withdrawal. The system shall not allow any withdrawal after expiry of the closure time of the bid.

19 OPENING OF THE BID :

- 19.1 Bid opening date and time is specified during tender creation or can be extended through corrigendum. Bids cannot be opened before the specified date & time.
- 19.2 All bid openers have to log-on to the portal to decrypt the bid submitted by the bidders.
- 19.3 The bidders & guest users can view the summary of opening of bids from any system. Contractors are not required to be present during the bid opening at the opening location if they so desire.
- 19.4 In the event of the specified date of bid opening being declared a holiday for the Officer Inviting the Bid, the bids will be opened at the appointed time on the next working day.
- 19.5 Combined bid security for more than one work is not acceptable.
- 19.6 The electronically submitted bids may be permitted to be opened by the predefined Bid opening officer from their new location if they are transferred after the issue of Notice Inviting Bid and before bid opening. Further, action on bid documents shall be taken by the new incumbent of the post.
- 19.7 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.

20 EVALUATION OF BIDS :

- 20.1 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".

20.2 The bidder may be asked 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 non-responsive. The authority inviting bid may reserve the right to accept any additional document.

20.3 The bidders will respond in not more than 7 days of issue of the clarification letter, failing which the bid of the bidder will be evaluated on its own merit.

20.4 The Technical evaluation of all the bids shall be carried out as per information furnished by Bidders.

20.5 The Procurement Officer-Evaluators; will evaluate bid and finalize list of responsive bidders.

20.6 The financial bids of the technically responsive bidders shall be opened on the due date of opening. The Procurement Officer-Openers shall log on to the system in sequence and open the financial bids.

20.6.1 The Financial Bid will be opened on the notified date & time in the presence of bidders or their authorized representative who wish to be present.

20.6.2 At the time of opening of "Financial Bid", bidders whose technical bids were found responsive will be opened.

20.6.3 The responsive bidders' name, bid prices, item wise rates, total amount of each item in case of item rate tender and percentage above or less in case of percentage rate tenders will be announced.

20.6.4 Procurement Officer-Openers shall sign on each page of the downloaded BoQ and the Comparative Statement and furnish a certificate to that respect.

20.6.5 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.

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

21. NEGOTIATION OF BIDS :

21.1 For examination, evaluation and comparison of bids, the officer inviting the bid may, at his discretion, as the lowest bidder for clarification of his rates including reduction of rate on negotiation and breakdown of unit rates.

22. NOTIFICATION OF AWARD AND SIGNING OF AGREEMENT :

22.1 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.

22.2 The Contractor after furnishing the required acceptable Performance Security & Additional Performance Security, "Letter to proceed" or "Work Order" shall be issued by the Engineer-in-Charge with copy thereof to the Procurement Officer –Publisher. The Procurement Officer-Publisher shall upload the summary and declare the process as complete.

22.3 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 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/their 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, otherwise the tender will be cancelled.

23. BLOCKING OF PORTAL REGISTRATION :

23.1 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.

23.2 The portal registration blocked in the ground mentioned in the above Para-23.1 shall be unblocked automatically in receipt of revocation order of cancellation / suspension / blacklisting from the concerned authority.

23.3 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 an 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.

23.3.1 Fails to furnish original Technical / Financial (Tender Paper Cost, EMD/Bid Security) instruments before the designated officer within the stipulated date and time.

23.3.2 Backs out from the bid on any day after the last date of receipt of tender till expiry of the bid validity period.

23.3.3 Fails to execute the agreement within the stipulated date.

23.3.4 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.

24. GUIDELINES FOR UNBLOCKING OF PORTAL REGISTRATION :

24.1 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

24.2 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 & shall consider the recommendation of the officer inviting tender for unblocking of portal registration. The quorum of the meeting will be four.

24.3 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 accounts '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.

24.4 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 in 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.

24.5 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 & 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.

25. REVISED EXECUTIVE INSTRUCTION REGARDING ELECTRONIC RECEIPT, ACCOUNTING AND REPORTING OF COST OF TENDER PAPER AND EARNEST DEPOSIT ON SUBMISSION OF BIDS.

1. The State Government have been working on formulation of Rules and procedures for **Electronic Receipt, Accounting and Reporting of the Receipt of Cost of Tender paper and Earnest Money Deposit on submission of Bid** through the E-procurement portal of Government of odisha i.e. <https://tendersodisha.gov.in> for some time past.
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 & 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 phase (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 & 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 accounts of the participating entities indicated in Para-2 above would be faster.
3. Only those bidders who successfully fully remit their Cost of Tender Paper & Earnest Money Deposit on submission of Bids would be eligible to participate in the tender/ Bid process. The bidders with pending or failure payments 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 pendency or failure.
4. **Banking Arrangements.**
- 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 bank participating in Electronic Receipt, Accounting and Reporting of the Receipt of Cost of Tender paper and Earnest Money Deposit on submission of Bids will nominate Focal Point Branch called e-FPB, who will be 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 banks branches while making payments.
5. **Procedure of Bid submission using electronic payment of tender paper cost and EMD by bidders.**
- a. The bidders have to logon to the e-Procurement portal (<https://tendersodisha.gov.in>) using his/her digital signature certificate and then search and then select 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 the Work Department Office Memorandum No.7885/W dt.23.07.2013.
- c. Electronic payments of 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 of their aggregator banks.
- ii. A bidder having account in other banks can make payments using NEFT/RTGS facility of designated banks.
- Online NEFT/RTGS Payments using internet banking of the bank in which the bidder holds his account, by adding the account No. as mentioned in the challan as on Interbank Beneficiary.

- d. **Bid Submission:** Only after receipt of intimation at the e-Procurement portal regarding successful transition by Bidders 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 and acknowledgement receipt for successful bid submission. The bidders 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 challans under the Head of Account for Cost of Tender Paper and instruct the designated Banks to remit the money to the proper Head of Account of State Government. 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 Service-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 Treasury Portal. Thereafter remittance through NEFT & RTGS will be facilitated through Odisha Treasury Portal.
 - c. Similarly, in case of State PSUs, Statutory Corporations, Autonomous Bodies & 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 cost of Tender Paper collected with reference to **Bid Identification Number**. The Cost of Tender papers will be credited to the registered Bank accounts of the concerned State PSUs, Statutory Corporations, Autonomous Bodies and Local Bodies.
 - d. The Bank will refund (in case the Tender Inviting Authority (TIA) issues such instructions), the tender fee and EMD to the Bidder, in case the Tender is cancelled before opening of Bid as per direction received from TIA through procurement system.
 - e. Back-end Transaction Matrix of Electronic Receipt of Cost of Tender Paper and Earnest Money deposits on submission of BIDs is enclosed in the **Annexure-I**.
7. **Settlement of Earnest Money Deposit on submission of Bids:**
- a. The Bank will remit the **Earnest Money Deposit on submission / cancellation of Bids** to respective Bidders account as per direction received from TIA through e-procurement system.
8. **Forfeiture of EMD:**

Forfeiture of **Earnest Money Deposits on submission of Bid** of defaulting bidders is occasioned for various reasons.

- a. In case the **Earnest Money Deposits on submission of Bid** is forfeited, the e-Procurement Portal will directed 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 deposited the forfeited **Earnest Money Deposits 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 receipts in their cash book under the head 0075-Misc. General Service-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 real-time message to bidders regarding successful or un-successful transaction during online payment process and re-direct them to e-Procurement website with necessary transaction reference detail 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 time reports and reference details to NIC enabling them to carry out their role as stated below.
- e. Refund of the 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 XLM-file and also provide a confirmation to NIC on the same.

10. Role of State Procurement Cell:

- a. Communicate requirement of Government departments / State PSUs / Autonomous Bodies / ULBs online payment requirement to National Informatics Centre / the authorized Banks for mapping / customization

- b. In every working day, the State Procurement Cell shall generated 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/LUBs. 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 MIS. State Procurement Cell shall monitor and send monthly progress reports to the Government.
- e. The e-Procurement System will generate a consolidated refund & settlements 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 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 Cahrt 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 made to the State Government account.

13. Redressal of Public grievances :

- a. 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 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 bid as well as refund and forfeiture of earnest deposit will be applicable for electronic submission of bids through e-Procurement portal. Existing provision regulating cost of tender paper and earnest money deposits in OPWD code and OGFR would stand modified to the extent prescribed in this Office Memorandum.

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

This shall take effect from the date of issue of this Office Memorandum

1. Accordingly, relevant existing codal / contractual provision exist vide Office Memorandum No.6785/W dt.09.05.2017 of Works Department stands modified to the above context.
2. This has been concurred in by the Finance Department vide their UOR NO.:-39-WF-I dt.09.11.2017.

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

	Cost of Tender Paper	Earnest Money Deposit on submission of Bid
Government Departments	I. The <i>payment</i> towards the Cost of Tender Paper, in case of Government Departments, shall be collected in theseparate pooling accounts opened in Focal Point Branch call e-FPB of respective designated banks (as statedPara-2) at Bhubaneswar on T+1 day. II. With reference to the Notice Inviting Tender / Bid Identification Number, theamount so realised is to be remittedGovernment 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 ofthe Bid.	I. In case of tenders of Government Departments amount towards Earnest Money Deposits 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 thebank will remit the amount to the respectivebidder's account within two working day onreceipt of instruction from TIA throughrefund and settlement of e-Procurement System. II. In case of forfeiture of Earnest Money Deposit on submission of bids, the e-procurement portal will direct the Bank to transfer the EMD value from the Pooling Account of SPC to the registered account of the tender inviting authority within two working days of receipt of instruction from TIA.
State PSUs, Statutory Corporations, Autonomous Bodies and Local Bodies	I. In case of State PSUs, Statutory Corporations, Autonomous Bodies andLocal Bodies etc. the amount towardsCost 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 day. II. The Paper Cost will be transferred tothe respective current account of concerned State PSUs, Statutory Corporations, Autonomous Bodies and Local Bodies etc. after opening of Bid.	I. Amount towards EMD on submission of Bids shall be collected in a separate poolingaccount of Focal Point Branch callede-FPBof respective designated banks at Bhubaneswar and the banks will remit the amount of 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 ofthe tender invitingathourity within two working daysof receipts of instruction from TIA.

GENERALINSTRUCTIONS TOCONTRACTORS

1. Any Agency or Contractor executing a work should be aware about the local festivals like Makar Sankranti, Raja Sankrati, Chaiti Parba, Danda Nata or any such festivals which may affect the work schedule. Therefore, the Contractor should engage more work forces during working period available at his disposal to complete the work as per schedule.
2. In the peak summer season, working hour is curtailed by the Labour Department to avoid exposure to personnel to the scorching sun and heat. It is the duty of the agency to increase the number of workforce and to employ the existing workforce during morning and afternoon hours as per Government orders.
3. Rainfall is a normal occurrence during monsoon in Odisha. So, unless there is unusually heavy rainfall resulting in a declared calamity, the Contractor is not eligible for any extension of time. The Contractor should plan the deployment of workforce and machinery, so as to complete the work as per schedule considering ordinary vagaries of the nature. The same applies for borrow areas ponding also. The contractor should foresee possible ponding borrow area in monsoon and likewise lift more quantity of soil/ other materials during dry period, so as to complete the work as per schedule.
4. The Contractor should foresee possible ponding of borrow area in monsoon and likewise lift more quantity of soil/other materials during dry period so as to complete the work as per schedule. The Contractor should take up the work with due diligence in the acquired land without waiting for acquisition of the entire land. This should be completed in proportionally less period depending on the quantum of available work front.
5. The Agency should plan his work programme and mobilize men and machineries considering the canal closure programme of a particular system or area. Khariff/Rabi closure can't be imposed arbitrarily on the farmers as per the convenience of the agency. Closure of canal for the interest of work will be solely at the discretion of the Engineer-in-Charge and can't be claimed as a matter of right.
6. There will always be standing crop before harvesting season as per crop schedule and this fact has to be clearly understood by the agency. Extension of time on this ground may not be considered by Divisional Officers.
7. Only the day(s) of elections to the Local Bodies/Assembly/Parliament will be treated as a non-working day(s)
8. It is mandatory to provide necessary safety arrangement by the contractor/agency at the worksite. He should also supply helmet, gun boot, safety jacket etc. to the workers at his own cost during construction activities at worksite.
9. The contractor/bidder must furnish his e-mail ID and Telephone/Mobile number for official correspondence at the time of requirement.

FORM – B
STRUCTURE AND ORGANISATION

1. Name of Tenderer
2. Nationality of Tenderer
3. Office Address
4. Telegraphic Address
- Telephone/ Fax No
- Mobile No
- Telex Number/ e-mail ID
5. Location of establishment
- And from date
6. The tenderer is
 - a. An individual
 - b. A proprietary firm.
 - c. A limited company or limited corporation
 - d. A member of a group of companies (If yes, give names, address and present description of other companies.)
 - e. A subsidiary of large organization
(If yes, give names, address of the present organization)
 - f. If the company is subsidiary, state what involvement if any, will the parent company have in the project.

Attach the organization chart showing the structure of the organization including the names of the Directors position of officer.

7. Number of year of experience
 - a. As a prime contractor
 - I. In own country
 - II. Other country (specify country)
 - b. In a Joint venture
 - I. In own country
 - II Other country (specify country)

8. Name & the address of any associates that the tenderer has in India, who are knowledgeable in the procedure of customs, immigration etc. and other information necessary to do work.
9. How many years has your organization been in business under your present name? Add what were your fields were initially and when you established your organization. When did you add new field (if any)?
10. Have you ever required for suspending construction for a period of more than six months continuously after you started? If so, give the names of project and reason for suspension or failure.
11. Have you ever not completed any work awarded to you? If so give name of project and reasons for not completing the work.
12. In how many projects you have been imposed with penalties for delay? Please give name of the projects and detail reasons.
13. In which fields of Civil Engineering construction do you claim specialization and interest.
14. Give details of your experience in modern concreting / Earth work and quality control.
15. Give details of your material testing laboratory.

Signature of Contractor

ANNEXURE-E(1)

AFFIDAVIT

I, Mr/Mrs/ M/S.....Aged.....year,
Son/Daughter/Wife of Sri..... at present residing
At.....P.O.....P.S.....Dist.....Pin.....
do hereby solemnly affirm as follows.

(i) That, I /We possess a valid license for execution of works contract issued by*.....belongs to.....Class & is valid up to**-----

I am submitting the tender before the Additional Chief Engineer, VansadharaNagaballi Basin, Paralakhemundi, Dist. Gajapati, Odisha for execution of the following work in response to e-
Procurement Notice No. ACE, VNB – 05 /2026-27.

Name of the Work:-. **“Peripheral Development of Harabhangi Dam of Mohana Block (Dam site park and hill top development projects at Harabhangi Dam, Adava, Gajapati)”**

(ii) I am the authorized signatory on behalf of contractor for the tender for the work as mentioned above.

(iii) I am swearing this affidavit that all tender documents and accompanying papers including all information those being submitted by me before the Additional Chief Engineer, VansadharaNagaballi Basin, Paralakhemundi, Dist. Gajapati, Odisha including E.M.D.in any shape are all authentic and bonafied documents in the eyes of the law of the land.

(iv)I am ____ class Engineering contractor.

(v)Being an Engineering contractor, I am entitled to avail EMD exemption.

(vi)I certify that I have availed EMD exemption for ____ no. of works / I have not availed EMD exemption in any work during this current financial year.

That the fact stated in the affidavits are true to the best of my knowledge and belief.

Signature of Tenderer /Authorized Signatory

Note :

* Mention the license issuing authority.

** Mention the date up to which the licence is valid.

*** Mention name of works for which tender is being submitted.

**** **SI. No. (iv), (v), (vi) are applicable only for Engineering contractors.**

ANNEXURE-E(2)

(AFFIDAVIT)

(To be submitted in original in legal stamp paper)

I, Sri-----Aged-----years
Son/Daughter/Wife of Sri-----at present
residing At-----P.O-----P.S-----
Dist.----- (State/Country) PIN-----

Do hereby declare that, I have not registered under the GST act in the state of Odisha as I have not started any business in the state & I have no liability under the Act. In the event of this contract is awarded to me, I will register my-self in the GST Act in the state of Odisha & I will produce the GST clearance certificate in form GST before drawal of agreement. That the facts stated in the affidavit are true to the best of my knowledge and belief.

Signature of Tenderer/
Authorise Signatory

Note:

This certificate is required to be furnished by the out side contractors
Who has not started any business in the state of Odisha.

ANNEXURE-“F”

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

1. a) Is the tenderer currently involved in any litigation relating to the works Yes/No

b) If yes, give details: Yes/No

2. a) Has the tenderer or any of its constituent partners been debarred/ Expelled by any agency in India during the last three years. Yes./No

3. a) Has the tenderer or any of its constituent partners failed to perform any contract working in India during the last three 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 be summarily rejected.

Signature

ANNEXURE-G

Certificate of No relationship as per clause 58 of DTCN

I/We hereby certify that I/We am/are not related to any officer of P.W.D. of the rank of Asst. Engineer and above and any officer of the rank of Asst. Secretary and above in the W/R Deptt. I/We am/are aware that if the facts subsequently proved to be false my/our contract will be rescinded with forfeiture of EMD & security deposit and I/We shall be liable to make good the loss or damages resulting from such cancellation.

I/We also note that, non-submission of this certificate will render my/our tender liable for rejection.

Signature of Contractor

Address _____

Date: _____

CHECKLIST
SUBMITTED OR NOT

Sl. No.	Documents required to be furnished.	<u>Tick appropriate column</u>			
1	Contractor's Registration Certificate	Yes		No	
2	P.A.N. Card	Yes		No	
3	GSTIN Certificate	Yes		No	
4	EMD/Bid Security	Yes		No	
5	Affidavit on authentication of documents	Yes		No	
6	Information regarding No Litigation etc.	Yes		No	
7	No Relation Certificate	Yes		No	
8	Any other document, felt necessary:	Yes		No	
a		Yes		No	
b		Yes		No	
c		Yes		No	

CONTRACTOR

SUPERINTENDING ENGINEER

GOVERNMENT OF ODISHA
WORKS DEPARTMENT

OFFICE MEMORANDUM

No. 07764600022025 173 /W., Bhubaneswar Dt. 03/01/20

Sub:- Amendment of Codal & Contractual Provisions.

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

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

- I. 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.
- II. 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;
- III. 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;
- IV. 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.
- V. The additional performance security shall be treated as part of the performance security.

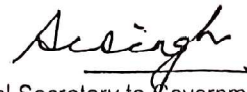
VI. Justification for abnormally low bids shall be scrutinized by the Departmental Technical Committee and recommended to the competent authority of the Administrative Department for the approval of the Additional Performance Security (APS). An abnormally low bid is one in which the Bid price, in combination with other elements of the Bid, appears so low that it raises material concerns as to the capability of the Bidder to perform the contract at the offered price. Procuring Entity may, in such cases, seek written clarifications from the Bidder, including detailed price analyses of its Bid price in relation to scope, schedule, resource mobilization, allocation of risks and responsibilities, and any other requirements of the bid document. If, after evaluating the price analyses, the procuring entity determines that the Bidder has substantially failed to demonstrate its capability to deliver the contract at the offered price, the Procuring Entity may reject the Bid/ Proposal. However, it would not be advisable to fix a normative percentage below the estimated cost, which would automatically be considered as an abnormally low bid.

2. These amendments shall take effect from the date of issue of the O.M.

3. Accordingly, the relevant existing codal/contractual provision stands modified with effect from the date of issue of this O.M.

4. This has been concurred in by the Finance Department vide File No. FIN-WF1-MISC-0102-2025

By order of the Governor



Principal Secretary to Government

Memo No. 174 /W, dated 03/01/26

Copy along with soft copy forwarded to Gazette Cell, Commerce and Transport (Commerce) Department, Bhubaneswar, for information and necessary action.

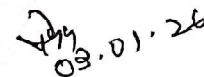
They are requested to publish the Office Memorandum in the extraordinary issue of the Gazette and supply 20 (twenty) copies to this Department.


03.01.26

EIC-cum-Special Secretary to Government

Memo No. 175 /W, Dt. 03/01/26

Copy forwarded to the P.S. to the Hon'ble Chief Minister, Odisha for the kind information of the Hon'ble Chief Minister.


03.01.26

EIC-cum-Special Secretary to Government

Memo No. 176 /W., Dt. 03/01/26

Copy forwarded to the P.S. to the Hon'ble Minister, Law, Works, Excise, Odisha for the kind information of the Hon'ble Minister.

JH
03.01.26
EIC-cum-Special Secretary to Government

Memo No. 177 /W., Dt. 03/01/26

Copy forwarded to the OSD to the Chief Secretary, Odisha, for the kind information of the Chief Secretary, Odisha.

JH
03.01.26
EIC-cum-Special Secretary to Government

Memo No. 178 /W., Dt. 03/01/26

Copy forwarded to Sr. P.S. to the DC-cum-ACS, Odisha, for the kind information of the DC-cum-ACS, Odisha.

JH
03.01.26
EIC-cum-Special Secretary to Government

Memo No. 179 /W., Dt. 03/01/26

Copy forwarded to Principal Accountant General (A&E), Odisha, Bhubaneswar/ Principal Accountant General (E & SR Audit), Odisha, Puri Branch, Puri for kind information and necessary action.

JH
03.01.26
EIC-cum-Special Secretary to Government

Memo No. 180 /W., Dt. 03/01/26

Copy forwarded to P.S. to the Principal Secretary to Govt., Finance Department/ H & UD Department for the kind information of the Principal Secretary, Finance Department/ H & UD Department respectively.

JH
03.01.26
EIC-cum-Special Secretary to Government

Memo No. 181 /W., Dt. 03/01/26

Copy forwarded to P.S. to the Commissioner-cum-Secretary to Govt., RD Department/ PR&DW Department for the kind information of the Commissioner-cum-Secretary, RD Department/ PR&DW Department respectively.

JH
03.01.26
EIC-cum-Special Secretary to Government

Memo No. 182 /W., Dt. 03/01/26

Copy forwarded to the Finance Department/ H & UD Department/ RD Department/ PR&DW Department/DoWR/ all other Departments for information and necessary action.

JH
03.01.26
EIC-cum-Special Secretary to Government

Memo No. 183 /W., Dt. 03/01/26

Copy forwarded to the FA-cum-Special Secretary to Government, Works Department for kind information and necessary action.

03.01.26

EIC-cum-Special Secretary to Government

Memo No. 184 /W., Dt. 03/01/26

Copy forwarded to all Collectors & DMs for information and necessary action.

03.01.26

EIC-cum-Special Secretary to Government

Memo No. 185 /W., Dt. 03/01/26

Copy forwarded to EIC(Civil-cum-Roads), Odisha /EIC, Water Resources, Odisha/ EIC, Rural Works, Odisha/ EIC (PH), H&UD Department/ EIC (RWSS) PR&DW Department/ EIC, DPQ, Odisha/ EIC, NHs, Odisha/ EIC-cum-Managing Director, OB & CC Ltd., Bhubaneswar, Odisha/ Chief Engineer, Roads-I & II, Odisha / Chief Engineer, Buildings-I & II, Odisha / Chief Engineer, NHs, Odisha/ Chief Engineer, Bridges, Odisha / Chief Engineer, P&IP, Odisha / Chief Engineer, RD &QP, Odisha /Chief Engineer, RW- I & II, Odisha / Chief Engineer, PH (Urban), Odisha / Chief Engineer, Electricity, Odisha / Managing Director, OCC Ltd., Bhubaneswar/ all State PSUs for kind information and necessary action.

03.01.26

EIC-cum-Special Secretary to Government

Memo No. 186 /W., Dt. 03/01/26

Copy forwarded to all CCEs/ SEs/ EEs of the Works Department for kind information and necessary action.

03.01.26

EIC-cum-Special Secretary to Government

Memo No. 187 /W., Dt. 03/01/26

Copy forwarded to Roads Section/ A/C-I Section /A/C-II Section/ Plan Section / Building Section / Budget Section / N.H. Section / FC & AA Section, Works Department for information and necessary action

03.01.26

EIC-cum-Special Secretary to Government

GOVERNMENT OF ODISHA

WORKS DEPARTMENT

OFFICE MEMORANDUM

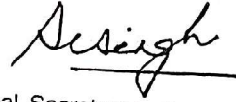
No. 07764600022025 632 /W., Bhubaneswar Dt. 9.1.26

Sub- Clarification on Works Department Office Memorandum No.173 dt 03.01.2026 regarding Amendment of Codal and Contractual Provisions.

The following clarifications are issued on Works Department Office Memorandum No. 173 dated . 03.01.2026

1. The phrase " *to abolish the extant provisions of threshold negative bid caps (14.99%) introduced*" in the first para of the Works Department OM No. 173 dated. 03.01.2026 may be read as " *to abolish the extant provisions of threshold negative bid caps of 15 % introduced vide Works Department OM No. 12366/W dt. 08.11.2013 and amended vide Works Department OM No. 1437 dt, 31.01.2023*"
2. If more than one bid is quoted (decimal up to two numbers will be taken for all practical purposes), either at the estimated cost put to tender or less than the estimated cost put to tender, the tender accepting Authority will finalize the tender through a transparent lottery system, where all the concerned bidders/their authorized representatives, the concerned SE/EE of the concerned Division and Divisional Accounts Officer (DAO) will remain present.
3. If the rate quoted by the SC and ST Category Contractors comes to the rate quoted by the 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.
4. As regards the bidding process in which the tender has been floated before the issue of Works Department Office Memorandum No.173 dt 03.01.2026, the bid shall be finalized as per the earlier provisions in Appendix-IX, Clause 36 of OPWD Code Volume-II.
5. This has been concurred in by the Finance Department in File No FIN-WF1-MISC-0102-2025

By order of the Governor



Principal Secretary to Government

J-WF1-MISC-0102-2025/1/2026

Memo No. 633 /W, dated 9.1.26

Copy along with soft copy forwarded to Gazette Cell, Commerce and Transport (Commerce) Department, Bhubaneswar, for information and necessary action.

They are requested to publish the Office Memorandum in the extraordinary issue of the Gazette and supply 20 (twenty) copies to this Department.

Dec
09.01.2026

EIC-cum-Special Secretary to Government

Memo No. 634 /W., Dt. 9.1.26

Copy forwarded to the P.S. to the Hon'ble Chief Minister, Odisha for the kind information of the Hon'ble Chief Minister.

Dec
09.01.2026

EIC-cum-Special Secretary to Government

Memo No. 635 /W., Dt. 9.1.26

Copy forwarded to the P.S. to the Hon'ble Minister, Law, Works, Excise, Odisha for the kind information of the Hon'ble Minister.

Dec
09.01.2026

EIC-cum-Special Secretary to Government

Memo No. 636 /W., Dt. 9.1.26

Copy forwarded to the OSD to the Chief Secretary, Odisha, for the kind information of the Chief Secretary, Odisha.

Dec
09.01.2026

EIC-cum-Special Secretary to Government

Memo No. 637 /W., Dt. 9.1.26

Copy forwarded to Sr. P.S. to the DC-cum-ACS, Odisha, for the kind information of the DC-cum-ACS, Odisha.

Dec
09.01.2026

EIC-cum-Special Secretary to Government

WF1-MISC-0102-2025/1/2026
WF1-MISC-0102-2025/1/2026

Memo No. 638 /W., Dt. 9.1.26

Copy forwarded to Principal Accountant General (A&E), Odisha, Bhubaneswar/ Principal Accountant General (E & SR Audit), Odisha, Puri Branch, Puri for kind information and necessary action.

Memo No. 639 /W., Dt. 9.1.26

09.01.2026
EIC-cum-Special Secretary to Government

Copy forwarded to P.S. to the Principal Secretary to Govt., Finance Department/ H & UD Department/ Works Department for the kind information of the Principal Secretary, Finance Department/ H & UD Department/ Works Department respectively.

09.01.2026
EIC-cum-Special Secretary to Government

Memo No. 640 /W., Dt. 9.1.26

Copy forwarded to P.S. to the Commissioner-cum-Secretary to Govt., RD Department/ PR&DW Department for the kind information of the Commissioner-cum-Secretary, RD Department/ PR&DW Department respectively.

09.01.2026
EIC-cum-Special Secretary to Government

Memo No. 641 /W., Dt. 9.1.26

Copy forwarded to the Finance Department/ H & UD Department/ RD Department/ PR&DW Department/DoWR/ all other Departments for information and necessary action.

09.01.2026
EIC-cum-Special Secretary to Government

Memo No. 642 /W., Dt. 9.1.26

Copy forwarded to the FA-cum-Special Secretary to Government, Works Department for kind information and necessary action.

09.01.2026
EIC-cum-Special Secretary to Government

Memo No. 643 /W., Dt. 9.1.26

Copy forwarded to all Collectors & DMs for information and necessary action.

09.01.2026
EIC-cum-Special Secretary to Government

Memo No. / 644 W., Dt. 2.1.26

Copy forwarded to EIC(Civil-cum-Roads), Odisha /EIC, Water Resources, Odisha/ EIC, Rural Works, Odisha/ EIC (PH), H&UD Department/ EIC (RWSS) PR&DW Department/ EIC, DPQ, Odisha/ EIC, NHs, Odisha/ EIC-cum-Managing Director, OB & CC Ltd., Bhubaneswar, Odisha/ Chief Engineer, Roads-I & II, Odisha / Chief Engineer, Buildings-I & II, Odisha / Chief Engineer, NHs, Odisha/ Chief Engineer, Bridges, Odisha / Chief Engineer, P&IP, Odisha / Chief Engineer, RD &QP, Odisha /Chief Engineer, RW-I & II, Odisha / Chief Engineer, PH (Urban), Odisha / Chief Engineer, Electricity, Odisha / Managing Director, OCC Ltd., Bhubaneswar/ all State PSUs for kind information and necessary action.

24.01.2026
EIC-cum-Special Secretary to Government

Memo No. / 645 W., Dt. 2.1.26

Copy forwarded to DDG & State Informatics Officer, National Informatics Centre, Odisha State Centre, Bhubaneswar, Email- sio-ori@nic.in for information and necessary action.

24.01.2026
EIC-cum-Special Secretary to Government

Memo No. 646 /W., Dt. 2.1.26

Copy forwarded to the Chief Executive Officer (Administrative), Odisha Computer Application Centre(OCAC), Bhubaneswar, for information and necessary action.

24.01.2026
EIC-cum-Special Secretary to Government

Memo No. 647 /W., Dt. 2.1.26

Copy forwarded to all EICs/CEs/COEs/ SEs/ EEs of the Works Department for kind information and necessary action.

24.01.2026
EIC-cum-Special Secretary to Government

Memo No. 648 /W., Dt. 2.1.26

Copy forwarded to Roads Section/ A/C-I Section /A/C-II Section/ Plan Section / Building Section / Budget Section / N.H. Section / FC & AA Section, Works Department for information and necessary action

24.01.2026
EIC-cum-Special Secretary to Government

Government of Odisha
Works Department
Office Memorandum

File no. 07556900032016- 5288 dated. 4.05.2016

Sub:- Amendment of codal / Contractual provisions.

After careful consideration Government have been pleased to make amendment to contractual and codal provisions for promoting efficiency and transparency while dealing with works for infrastructural development of the State as per Annexure-I.

- 1) These amendments shall take effect from the date of issue of the order.
- 1) Accordingly, relevant existing codal / contractual provision made vide Works Department in Office memorandum No. 12336 / W dt: 08.11.2013 stands modified with effect from the date of issue of this O.M.
- 2) This has been concurred in by Finance Department in their UOR No. 79-WF-I dt. 18.03.2016.

Annexure-I

1) (A) Amendment to Para-3,5,5 (V) of Note – II of OPWD Code Vol-1 by modification.

Note- (VI)- Additional Performance Security shall be obtained from the bidder when the bid amount is less than the estimated cost put to tender. In such an event, the bidders who have quoted less bid price / rates than the estimated cost put to tender shall have to furnish the exact amount of differential cost i.e. estimated cost put to tender minus the quoted amount as Additional Performance Security in shape of Demand Draft / Term Deposit Receipt pledged in favour of the Divisional Officer in the sealed envelope along with the price bid at the time of submission of bids.

Modified

The bids of the technically qualified bidders will be opened for evaluation of the price bid. In case of the bidders quoting less bid price / rate than the estimated cost put to tender and have not furnished the exact amount of differential cost (i.e. estimated cost put to tender minus the quoted amount) as Additional Performance Security in shape of Demand Draft / Term Deposit Receipt, their price bid will not be taken in to consideration for evaluation even if they have qualified in the technical bid evaluation.

(B) Amendment to Para-3,5,5 (V) of Note – III of OPWD Code Vol-1 by modification.

Note- (III)- 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 Superintending 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 (seven) days of such completion by the conceded Superintending Engineer, Chief Engineer & the Administrative Department.

The incentive for timely completion should be on a graduated scale of 1(one) percent to 5(five) percent of the contract value. Assessment of incentives may be worked out for earlier completion of work in all respect in the following scale.

- Before 30% of contract period=5% of Contract Value
- Before 20% to 30% of contract period=4% of Contract Value
- Before 10% to 20% of contract period=3% of Contract Value
- Before 5 to 10% of contract period=2% of Contract Value
- Before 5% of contract period=1% of Contract Value

GOVERNMENT OF ODISHA
WORKS DEPARTMENT

OFFICE MEMORANDUM

No. 07554600032022- 1739 /W., Dated. 3-2-2023

Sub: Codal/ Contractual provisions regarding Price Adjustment in Works Contract

Codal/Contractual provisions regarding Price Adjustment in Works Contract was under active consideration of Government for some time past. After careful consideration, Government was pleased to make the codal/ contractual provisions regarding Price Adjustment clause due to increase or decrease in rate and price of Labour, Materials, Fuels and Lubricants and Plant and Machineries, Spare Components vide Works Department O.M No. 15847/W Dtd. 19.11.2019.

2. Now, in continuation of Works Department O.M No. 15847/W dtd. 19.11.2019, Government have been pleased to make the following provisions in place of existing provision relating to "Schedule of Adjustment Data under Appendix to Bid".

[For all works, adjustment factor for Labour and POL shall be considered at the rate of 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. The cases where the original technically sanctioned estimate gets revised, the technical sanction to the revised estimate will be obtained from the competent authority as provided under Para 3.11.2 (b) of OPWD Code, Volume-I Based on the revised technically sanctioned estimate, the Labour & the POL component shall be given the weightage of 5% each as provided in O.M. No.15847/W dated 19.11.2019 of Works Department and the weightage of 90% on steel, cement, bitumen, pipes, other materials and plant and machinery spare component shall be given as per the technically sanctioned revised estimate excluding the extra items. The revised weightage of "**Schedule of Adjustment Data**" based on revised technically sanctioned estimate shall be included as an **Addendum** to the agreement. The technical sanctioning authority shall be the competent authority for this purpose.]

This has been concurred in by Finance Department vide their OSWAS File No. FIN-WF1-MISC-0033-2022.

By order of the Governor

(Vir Vikram Yadav, IAS)
Principal Secretary to Government



GOVERNMENT OF ODISHA

DEPARTMENT OF WATER RESOURCES

File No. 20562400632020 Letter No. 699
(IIM-64/2020)

Dated. 7/11/2021

From

Sri B.K. Behera, OFS (SSG),

FA-cum-Special Secretary to Govt.

To

The EIC, Water Resources.

The EIC, P & D.

All Chief Engineers and Basin Managers,

All Chief Engineers.

All Chief Construction Engineers.

M.D. OCC Ltd.,

M.D. OLIC.

Sub:- For taking follow up action on the Observation and decision of the Committee held on 12-10-2020 and 20-10-2020.

Sir,

I am directed to enclose herewith the copy of the Proceedings of the TC-Cum-EC dated 12-10-2020 and Committee dated 20-10-2020 on (i) Evaluation & submission of tender proposals (ii) Delay in submission of proposals to Govt. for approval (iii) EOT application (iv) preparation of realistic estimate for avoidance of deviations (v) Basis of imposing of penalty in EOT/Deviation (vi) Reasons for sanction of EOT (attributable to the agency/not attributable to the agency) & (vii) Application of EOT as per Codal provision for taking follow up action by the field officials.

Encl:- Copy of the proceeding dated 12-10-2020 and 20-10-2020.

Yours faithfully,

FA-Cum-Special Secretary to Govt.

7/11/2021



Your Signature will appear here.

PROCEEDINGS OF THE MEETING ON TENDER RELATED MATTERS OF DEPARTMENT OF
WATER RESOURCES HELD ON 20-10-2020 AT 3.30 PM (THROUGH VIRTUAL CONFERENCE).

As per the discussion of the TC-Cum-EC held on 12-10-2020, it was decided to examine the genuineness of reasons of EOT, penal provision on delay in completion etc. by a Committee. Accordingly, a Committee was formed vide DOWR letter No.19007 dated 19-10-2020 (IIM-64/2020). The Committee Members discussed the following agenda in its meeting held on 20-10-2020.

Agenda:-

- (i) Basis of imposing of penalty in EOT / Deviation.
- (ii) Reasons of hindrances for sanction of EOT (attributable to the agency / not attributable to the agency).
- (iii) Application of EOT as per Codal Provision (Para 3.5.30 of OPWD Code).
- (iv) M/s OCC Ltd. shall be declared as ideal contractor in respect of execution of work, maintaining time and quality.

The observation/decision of the Committee is as under:-

(i) Basis of imposing of penalty in EOT / Deviation.

It has come to the notice of Government that proposals for grant of Extension of Time (EoT) are received on flimsy grounds. This has resulted in further grant of Escalation and Differential cost of Cement and Steel to the Contractors involving huge sums of money.

There are other irregularities in Tender & Contract Management such as, acquisition of land, canal closure programme etc, which are also hampering execution of project works and ultimately resulting in time and cost overrun. The matter has been discussed and the members stated that the works are being completed with reasons attributable to the agencies and works are to be closed for regularisation of the contract. In some cases the agencies are leaving the works in incomplete stage and the work has to be closed due to some reasons or other. In such cases following decisions are taken by the Committee:-

1. In case of completion of the work in all respect, the EOT may be granted with imposition of penalty amounting to 0.2% (amount to be rounded off to the next higher value of Rs.100/-) of the value of works executed during the extended period (EOT period), subject to Minimum penalty of Rs.10,000/-.

2. In case of incomplete works/ to rescind the contract, the contract to be closed as per the provision contained in Clause-2(b) of F2 agreement, 20% of the value of left-over work will be realised from the Contractor as penalty.

The suggestions/recommendations of the CE/CCE with respect to imposition of penalty is to be examined by the Technical Committee of EIC, W.R. and considered views may be forwarded to Government for necessary action.

(ii) Reasons of hindrances for sanction of EOT (attributable to the agency / not attributable to the agency).

• Reasons of hindrances for sanction of EOT attributable to the agency

1. The local festivals like Makar Sankranti, Raja Sankranti, Chaiti Parba, Danda Nata or any such festivals which may affect the work schedule.
2. In the peak summer season, working hour is curtailed by the Labour Department to avoid exposure to personnel to the scorching sun and heat. It is the duty of the agency to increase the number of work force and to employ the existing work force during morning and afternoon hours as per Government orders.
3. Rainfall is a normal occurrence during monsoon in Odisha. So, unless there is unusually heavy rainfall resulting in a declared calamity, the Contractor is not eligible for any extension of time. The Contractor should plan the deployment of workforce and machinery, so as to complete the work as per schedule considering ordinary vagaries of the nature.
4. The same applies for borrow areas ponding. The Contractor should foresee possible ponding of borrow area in monsoon and likewise lift more quantity of soil/ other material during dry period, so as to complete the work as per schedule.
5. The Contractor should take up the work with due diligence in the acquired land without waiting for acquisition of the entire land. This should be completed in proportionally less period depending on the quantum of available work front.
6. The Agency should plan his work programme and mobilize men and machineries considering the canal closure programme of a particular system or area. Khariff/ Rabi closure can't be imposed arbitrarily on the farmers as per the convenience of the agency. Closure of canal for the interest of work will be solely at the discretion of the Engineer-in-Charge and can't be claimed as a matter of right.
7. There will always be standing crop before harvesting season as per crop schedule and this fact has to be clearly understood by the agency. Extension of time on this ground may not be considered by Divisional Officers.

Reasons of hindrances for sanction of EOT not attributable to the agency).

1. Only the day (s) of elections to the Local Bodies/Assembly/Parliament will be treated as a non-working day (s).

2. Unless there is unusually heavy rainfall resulting in a declared calamity, the Contractor is not eligible for any extension of time.
3. Force majeure.
4. Abnormally bad weather, cyclones etc.
5. Civil commotion, local commotion of workmen, strike or lockout, affecting any of the trades employed on the work.
6. Delay on the part of other contractors engaged by the Engineer-in-Charge in executing work not forming part of the contract.
7. In case a variation/ additional work 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 cause the contractor to incur additional cost.
8. Any other cause, which in the absolute discretion of the authority mentioned, contract data is beyond the contractor's control.

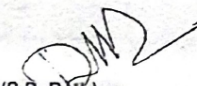
(iii) Application of EOT as per Codal Provision (Para 3.5.30 of OPWD Code).

The members opined that the application for Extension of Time for completion of the work on the grounds of unavoidable hindrance or any other grounds shall be positively submitted by the contractor within 30 days of such hindrance. This should be strictly followed.

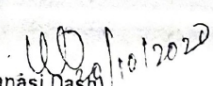
(iv) M/s OCC Ltd. shall be declared as ideal contractor in respect of execution of work, maintaining time and quality.

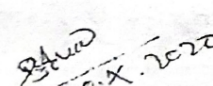
OCCL is requested to frame the procedures for award and execution of works for timely completion of works and maintaining proper quality.

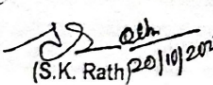
The meeting ended with vote of thanks to the chair.

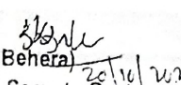

(S.P. Rath)
Joint Secy. to Govt.
Finance Department


(J. Rath)
E.I.C, W.R.


(Smt. Manasi Dash)
FA-Cum-Addl. Secretary to Govt.
Department of Water Resources.


(B.P. Sahoo)
Joint Secy. to Govt.
Law Department.


(S.K. Rath)
CE, FC & BM, LMB.


(B.K. Behera)
FA-Cum-Spl. Secy. to Govt.
Department of Water Resources.

(36)
Memo No. 541 / Dated 19-01-2021
Copy forwarded to all S.E.s/ all E.E.s for
Information & necessary action.

GOVERNMENT OF ODISHA
WORKS DEPARTMENT

File No. 07554600032022- 1499 *** /W., dated. 01.02.2023

OFFICE MEMORANDUM

Sub:- Amendment to Para-3.5.19 (a) (b) of the OPWD Code, Volume-I.

After careful consideration, Government have been pleased to make amendment to Para-3.5.19 (a) (b) of the Odisha Public Works Department Code, Volume-I with the following modification.

"Security for the due fulfilment of a contract should invariably be taken. The security may be taken in shape of N.S.C./ Post Office Savings Bank Account/ Post Office Time Deposit Account/ Kisan 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 towards E.M.D/initial Security Deposit/ any other security deposit from the contractor or supplier."

1. This shall take effect from the date of issue of this Office Memorandum.
2. This has been concurred in by Finance Department vide their OSWAS File No. FIN-WF1-MISC-0033-2022.

By order of the Governor

(Vir Vikram Yadav, IAS)
Principal Secretary to Government

Memo No. 1500 /W., Dated, 01.02.2023

Copy forwarded to Private Secretary to Hon'ble Chief Minister, Odisha / Private Secretary to Hon'ble Minister, Works, Steel & Mines, Odisha for kind information of Hon'ble Chief Minister, Odisha & Hon'ble Minister, Works, Steel & Mines, Odisha.

FA-cum-Additional Secretary to Government

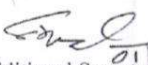
Memo No. 1501 /W., Dated, 01.02.2023

Copy forwarded to OSD to Chief Secretary, Odisha / Sr. Private Secretary to Development Commissioner-cum-Additional Chief Secretary to Govt. / Sr. Private Secretary to Principal Secretary to Govt., Finance Department for kind information of Chief Secretary / Development Commissioner-cum-Additional Chief Secretary/ Principal Secretary, Finance Department.

FA-cum-Additional Secretary to Government

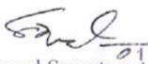
Memo No. 1502 /W., Dated, 01.02.2023

Copy forwarded to the Principal Accountant General (A&E), Odisha, Bhubaneswar / Principal Accountant General (E&RSA), Odisha, Puri Branch, Puri for information and necessary action.


01/02/2023
FA-cum-Additional Secretary to Government

Memo No. 1503 /W., Dated, 01.02.2023

Copy forwarded to All Departments of Government / EIC-cum-Managing Director, OB&CC Ltd., Bhubaneswar / Managing Director, OCC Ltd., Bhubaneswar / Managing Director, OSPH&WC, Bhubaneswar for information and necessary action.


01/02/2023
FA-cum-Additional Secretary to Government

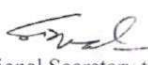
Memo No. 1504 /W., Dated, 01.02.2023

Copy forwarded to EIC (Civil), Odisha / EIC, Water Resources, Odisha / EIC (Rural Works), Odisha / All Chief Engineers, under the Administrative Control of Works Department, R.D. Department, Water Resources Department and H&UD Department / All CCEs (under Works Department) / All Superintending Engineers (under Works Department) / All Executive Engineers (under Works Department) for information.


01/02/2023
FA-cum-Additional Secretary to Government

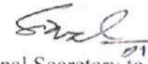
Memo No. 1505 /W., Dated, 01.02.2023

Copy forwarded to OSWAS Control Room with a request to upload in the website of Works Department.


01/02/2023
FA-cum-Additional Secretary to Government

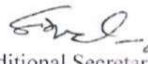
Memo No. 1506 /W., Dated, 01.02.2023

Copy along with soft copy forwarded to Gazette Cell, Commerce & Transport (Commerce) Department, Bhubaneswar with a request to publish Notification in extra ordinary issue Gazette and supply 10 (Ten) copies to this Department for official use.


01/02/2023
FA-cum-Additional Secretary to Government

Memo No. 1507 /W., Dated, 01.02.2023

Copy forwarded to Accounts-I Section / Accounts-II Section / Road Section / Plan Section / Building Section / Budget Section / NHs Section / FC & AA Section / EAP Section for information and necessary action.


01/02/2023
FA-cum-Additional Secretary to Government

**GOVERNMENT OF ODISHA
WORKS DEPARTMENT**

* * *

No. 07559600192022- 1437 Bhubaneswar, Dated the 31-1-2023

OFFICE MEMORANDUM

Sub:- Amendment to Codal Provision under Clause 36 of Appendix-IX of OPWD Code, Volume-II.

After careful consideration and in supersession of codal provision under Clause-36 of Appendix-IX of OPWD Code, Volume-II vide Works Department O.M. No.12366/W dated 08.11.2013, Government have been pleased to make following provision.

Clause 36 of Appendix-IX of OPWD Code, Volume-II

If the rate quoted by the bidder is less than 15% of the amount put to tender, then such a bid shall be rejected and the tender shall be finalized basing on merits of rest bids. But, 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 bidders / their authorized representatives, the concerned SE/ Executive Engineer of concerned Division and DAO will remain present.

1. This amendment to the codal provision shall take effect from the date of issue of the order.
2. Accordingly, the relevant existing codal/ contractual provision stands modified with effect from the date of issue of this O.M.
3. This has been concurred in by Finance Department in their OSWAS File No.FIN-WF1-MISC-0042-2022.

By order of the Governor

(Vir Vikram Yadav, IAS)

Principal Secretary to Government

Memo No. 1438 /W., Dated, 31-1-2023

Copy forwarded to Private Secretary to Hon'ble Chief Minister, Odisha / Private Secretary to Hon'ble Minister, Works, Steel & Mines, Odisha for kind information of Hon'ble Chief Minister, Odisha & Hon'ble Minister, Works, Steel & Mines, Odisha.

31/01/2023
FA-cum-Additional Secretary to Government

Memo No. 1439 /W., Dated, 31-1-2023

Copy forwarded to OSD to Chief Secretary, Odisha / Sr. Private Secretary to Development Commissioner-cum-Additional Chief Secretary to Govt. / Sr. Private Secretary to Principal Secretary to Govt., Finance Department for kind information of Chief Secretary / Development Commissioner-cum-Additional Chief Secretary/ Principal Secretary, Finance Department.

31/01/2023
FA-cum-Additional Secretary to Government

(P.T.O.)

Memo No. 1440 /W., Dated, 31-1-2023

Copy forwarded to the Principal Accountant General (A&E), Odisha, Bhubaneswar / Principal Accountant General (E&RSA), Odisha, Puri Branch, Puri for information and necessary action.

Sanjiv
31/01/2023
FA-cum-Additional Secretary to Government

Memo No. 1441 /W., Dated, 31-1-2023

Copy forwarded to All Departments of Government / EIC-cum-Managing Director, OB&CC Ltd., Bhubaneswar / Managing Director, OCC Ltd., Bhubaneswar / Managing Director, OSPH&WC, Bhubaneswar for information and necessary action.

Sanjiv
31/01/2023
FA-cum-Additional Secretary to Government

Memo No. 1442 /W., Dated, 31-1-2023

Copy forwarded to EIC (Civil), Odisha / EIC, Water Resources, Odisha / EIC (Rural Works), Odisha / All Chief Engineers, under the Administrative Control of Works Department, R.D. Department, Water Resources Department and H&UD Department / All CCEs (under Works Department) / All Superintending Engineers (under Works Department) / All Executive Engineers (under Works Department) for information.

Sanjiv
31/01/2023
FA-cum-Additional Secretary to Government

Memo No. 1443 /W., Dated, 31-1-2023

Copy forwarded to OSWAS Control Room with a request to upload in the website of Works Department.

Sanjiv
31/01/2023
FA-cum-Additional Secretary to Government

Memo No. 1444 /W., Dated, 31-1-2023

Copy forwarded to the Director, Printing, Stationary & Publication, Odisha, Cuttack by e-mail (deputydirectorpp@rediffmail.com) for publication of this Office Memorandum in the next issue of Odisha Gazette and supply 20 (Twenty) copies to this Department for official use.

Sanjiv
31/01/2023
FA-cum-Additional Secretary to Government

Memo No. 1445 /W., Dated, 31-1-2023

Copy forwarded to Accounts-I Section / Accounts-II Section / Road Section / Plan Section / Building Section / Budget Section / NHs Section / FC & AA Section / EAP Section for information and necessary action.

Sanjiv
31/01/2023
FA-cum-Additional Secretary to Government

SECTION – 3

GENERAL RULES & DIRECTIONS

ORISSA PUBLIC WORKS DEPARTMENT

(FORM P-1)

PERCENTAGE RATE TENDER AND CONTRACT FOR WORKS

GENERAL RULES & DIRECTIONS FOR THE GUIDANCE OF

CONTRACTORS

1. The work proposed for execution by contract will be notified in a form of invitation to tender pasted through the Govt. web-site www.tendersorissa.gov.in

This notice will state the work to be carried out, the date for submitting and opening tenders also the amount of earnest money to be deposited and the amount of the security deposit by the successful tenderer and the percentage if any to be deducted from bills. Copies of the specifications, designs and drawings and any other documents required in connection with the submission of tender signed for the purpose of identification by the Sub-divisional Officer/Superintending Engineer shall also be open for inspection by the contractor at the office of the Sub-Divisional Officer/Superintending Engineer during office hours.

2. In the event of the tender being submitted by a firm it must be signed separately by each member thereof, or in the event of the absence of any partner, it must be signed on his behalf by a person holding a power of attorney authorizing him to do so.

3. Receipts for payment made on accounts of works, when executed by a firm must also be signed by the several partners, except where the contractors are described in their tender as a firm in which case the receipts must be signed in the name of the firm by one of the partners, or by some other person having authority to give effectual receipts for the firm.

4. The memorandum of work tendered for and the memorandum of materials to be supplied by the Public Works Departments and their issue rates shall be filled in and completed in the office of the Sub-Divisional Officer/Superintending Engineer before the tender form is issued if a form is issued to an intending tender without having been so filled in and completed, he shall request the office to have this done before he completes and delivers his tender.

5. The amount of earnest money to be deposited will be 1% of the estimated cost.

6. Any person who submits a tender shall fill up the usual printed form stating at what percentage rate he is willing to undertake item of the work. Incomplete tender and tender rate he is willing to undertake each item of the work specified in the said form of invitation to tender or which contain any other conditions of any sort, or omit to note the time within which the work can be finished or which are not accompanied for the required earnest money will be liable to rejection. No single tender shall include more than one work but contractors who wish to tender for two or more works shall submit a separate tender for each tender. Tender shall bear the name of the work to which they refer written outside the envelope.

7. The Engineer or his duly authorized assistant will open the tenders in the presence of any intending contractors who may be present at the time and will enter the amounts of the several tenders in a comparative statement in a suitable form.

8. The Engineer shall have the right of rejecting all or any of the tenders.

9. In the event of a tender being selected for acceptance the Engineer who opened the tenders will, if he is competent to accept the tender, inform the tenderer of the selected tender who shall there upon sign copies of the specification and other documents with the tender. The tenders to the selected tender shall also deposited the required amount of the security money within the prescribed time. If the tenderer fails to deposit the required amount of the security money within the prescribed time the Engineer may reject the tender.

If the Engineer is not competent to accept the tender himself, he will inform the tenderer of the tender which he decides to recommended for acceptance, such tender shall thereupon sign forthwith copies of the specification and other documents mentioned in rules 1 and 4 and shall deposit the required amount of the security money within the prescribed time. The tender with the specification and other documents signed by the tenderer will then be forwarded for acceptance to the Engineer who is competent to accept the same. If the said Engineer rejects the tender the security money deposited shall be refunded to the tenderer.

10. When a tender is selected for acceptance, the tenderer shall deposit the required amount of the security money in cash in any treasury and shall forward the Challan to the Superintending Engineer. Government securities may be endorsed to the Superintending Engineer in lieu of cash deposit of the required amount of the security money No tender shall be finally accepted until the required amount of the security money has been deposited.

11. The amount of security money to be deposited by the tenderer whose tender is selected for acceptance shall be 2 percent of the estimated value of the work and towards this amount the earnest money already deposited by him shall be credited. At least half of this security inclusive of the earnest money shall be deposited the tenderer within such time as may be notified to him in writing by the officer opening the tender, failing which tender shall be liable to rejection. Any balance of the security money outstanding after completion of the contract with the tenderer may be made up by deduction of 5% of the amount of each payment to be made to his under clause 7 of the condition of contract for work done under the contract. Taxes as per provisions of Government shall be deducted from the bills of tenderer.

12. When tender has been selected for acceptance and the required amount of the security money has been deposited the Engineer shall scrutinize a pages of the form of item, percentage Tendered and Contract for works to see that the form has been properly filled up and signed by the contractor and the signature witnessed. He shall then, if he is competent to

accept the tender, sign the acceptance of the tenders or if he is not so competent to, shall send the form for signature of the acceptance to the officer competent to accept it.

13. All tenderers are required to submit a list of works, which are in hand at the time of submitting their tenders. The list of works are required to be submitted in the proforma by the Superintending Engineer under whom he has executed the work in order to judge their past performance (vide Works Department Circular No. 15443dt. 01.08.2005.)

12. The earnest money deposited is liable to be forfeited to Govt. if the bidders back out from the offer before acceptance of the tender by the competent authority.

13. GST on works contract as applicable at the time of payment shall be paid extra over the Gross amount of the running bill amount. (vide section 15 and section 142 (11) (C) of Odisha GST Act 2017)

14. The earnest money deposited is liable to be forfeited to Govt. if the bidders back out from the offer before acceptance of the tender by the competent authority.

15. GST on works contract as applicable at the time of payment shall be paid extra over the Gross amount of the running bill amount. (vide section 15 and section 142 (11) (C) of Odisha GST Act 2017)

16. Prevailing rate of GST (Presently TDS-2%) on the gross amount of the bill will be deducted from the contractor's bill as applicable on the date of payment where agreement value exceeds rupees two lakhs fifty thousand. (to be applicable as per Govt. Notification & amended from time to time)

17. Agreement shall be drawn only after due verification of EMD & APSD of the successful bidder and if any illegitimate instruments are found, criminal proceedings will be initiated against the defaulting bidder and action will be initiated for blacklisting through the license issuing Authority.

TENDER FOR WORKS

I / We hereby tender for the execution for the Government of Orissa for the work specified in the underwritten memorandum at the rates specified therein a period of **12(Twelve)calendar months** from the date of written order to commence and in accordance in all respects with the specifications designs and other documents referred to in rule. I here of and subject to the annexed conditions of contract and with such materials as are provided for by and in all other respects in accordance with such condition so far as applicable.

MEMORANDUM

- | | | |
|--|---|---|
| (a) If several sub-works are included they should be detailed in a separate list | a. Name of work : | Peripheral Development of Harabhangi Dam of Mohana Block (Dam site park and hill top development projects at Harabhangi Dam, Adava, Gajapati)” |
| | b. Amount put to tender: | Rs. 304.07 Lakhs |
| | c. Agreement Amount: | |
| | d. Earnest Money Deposit: | Rs 3,04,070/- |
| (e) This deposit will be 2 % of the Agreement amount | e. Initial Security Deposit (including earnest money to be deposited before the commencement of the work) | |
| (f) This percentage deduction from bills be credited to the contractor's | f. Percentage to be deducted from bill (As Security Deposit) : | |
| | g. Time required for the work from date of written order to commence : | |
| | h. Date of written order to commence work : | |
| | i. Actual date of commencement : | |
| | j. Stipulated date of completion: | |
| | k. Number of items of works tendered for : | |
| | l. Income Tax : | |
| | m. GST : | |
| | n. Royalty of construction materials : | |
| | o. Building and other construction Workers Welfare Cess : | |

Signature of
contractor before
submission of
tender.

Should this tender be accepted, I/We hereby agree to abide by and fulfill all the terms and provisions of the said conditions of contract annexed here to so far as applicable or in default thereof to forfeit and pay to the Governor of Orissa or his successors in office the sum of money mentioned in said conditions.

Dated the day of20

Signature of the Witness to
tender Signature

Signature of Contractor

Address

Signature of
officer by whom
accepted.

The above tender is hereby accepted by me on behalf of the Government of Orissa.
Dated..... day of20

**Superintending Engineer
HarabhangilrrigationDivision
Adava**

Agreement No P1/..... Certified that this agreement contains
.....pages only.

**Superintending Engineer
Harabhangilrrigation Division
Adava**

SECTION – 4

CONDITION OF CONTRACT

CONDITIONS OF CONTRACT

Clause-1: All compensation or other sums of money payable by the contractor of Government under the terms of his contract may be deducted from or paid by, the sale of a sufficient part of his security deposit of firm the interest arising there from, or from any sums which may be due or may become due to the contractor by Government on any account whatsoever and in the event of his security deposit being reduced by reason of any such deduction or sale as aforesaid, the contractor shall within ten days thereafter make good in cash or Government securities endorsed as aforesaid any sum or sums which may have been deducted from or raised by, sale or the security deposit or any part thereof.

**Compensation
for delay.**

Clause 2(a): The time allowed for carrying out the work as entered in the tender shall be strictly observed by the contractor and shall be reckoned from the date on which the written order to commence work is given to the contractor. The work shall throughout the stipulated period of the contract, be carried on with all due diligence (time being deemed to be of essence of the contract on the part of the contractor) and the contractor shall pay, as compensation, an amount equal to **1/2 percent** on the amount of the estimated cost, if the whole work as shown by the tender for everyday that the work remains un-commenced, or unfinished after the proper dates (The work should not be considered finished until such date as the Superintending Engineer shall certify as the date on which the work is finished after necessary rectification of defects as pointed out by the Superintending Engineer or his authorize agents, are fully complied with by the contractor to the Superintending Engineer's satisfaction). And further, to ensure good progress during the execution of the work the contractor shall be bound, in all cases in which the time allowed for any work exceeds one month, to complete one-fourth of the whole of the work before one fourth of the whole time allowed under the contract has elapsed, one half of the work, before one half of such time has elapsed, and three fourth of work before three fourths as such time has elapsed, in the events of the contractor failing to comply with the conditions, he shall be liable to pay as compensation an amount equal to **one-third** percent on the said estimated cost of the whole work for everyday that the due quantity of work remains incomplete. Provided always that the entire amount of compensation to be paid under the provisions of this clauseshall not exceed **10 percent** on the estimated cost of the workas shown in the tender.

(b) If there are possibilities of exceeding this compensation amount as mentioned in clause (a) 10% of the estimated cost, or in any case in which under any clause or clauses of this contract the work should not be considered finished until such date as the S.E. shall certify as the date on which the work is finished after necessary rectification of defects as pointed out by S.E. or his authorized agents are fully complied with by the contractor to the S.Es satisfaction. Action when whole security deposit is forfeited contractor shall have rendered himself liable to pay compensation amounting to the whole of his security deposit in the hands of Government (whether paid in once on or deducted by installments) the Superintending Engineer on behalf of the Governor of Orissa, shall have power to adopt any of the following courses, as he may deem best suited to the interest of the Government.

Action
when
whole
security
deposit is
forfeited.

i) To rescind the contract (of which rescission notice in the writing to the contractor under the hands of the Superintending Engineer shall be conclusive evidence) 20% of the value of left over work will be realized from the contractor as penalty.

ii) To employ labour paid by the Public Works Department and to supply materials to carry out the work or any part of the work, debiting the contractor with the cost of the labour and the price of the materials (of the amount of which the cost and price certificate of the Superintending Engineer shall be final and conclusive against the contractor) and crediting him with the value of the work done. In all respects in the same manner and at the same rate as if the contractor under the terms of his contract had carried it out, the certificate of the Superintending Engineer as to the value of work done shall be final and conclusive against the contractor.

iii) To measure of the work of the contractor and to take such part of the work of the contract as shall be in executed out of his hands and to give it to another contractor to complete, in which case any expenses which may be incurred in excess of the some which would have been paid to original contractor. If the whole work had been executed by him (of the amount of which expect the certificate in writing of the Superintending Engineer shall be final and conclusive) shall be borne and paid by the original contractor and may be deducted from any money due to him by Government under the contract or their wise or from his security deposit or the proceeds of sale thereof or a sufficient part thereof. In event of any of the above courses being adopted by the Superintending Engineer the contractor shall have no claim to compensation for any loss sustained by him by reason of his having purchased or procured any materials, or entered into any engagements, or made any advances on account of or with a view to the execution of the work or the performance of the contract. And in case the contract shall be rescinded under the provision aforesaid, the contractor shall not be entitled to recover or be paid any sum for any work there of for actually performed under this contract. Unless and until the Superintending Engineer shall have certified in writing the performance of such work and the value table in respect thereof and he shall only be entitled to be paid the value of so certified.

iv) Security deposit of the contractor shall be refunded only one year after the date of completion of the work provided the final bill has been paid and defects, if any rectified.

Clause - 3: In any case in which any of the powers conferred upon the Superintending Engineer by clause 3 thereof, shall have become exercisable and the same shall not be exercised, the non exercise thereof shall not constitute a waiver of any of the conditions in the event any further here of and such powers shall notwithstanding be exercisable in the event of any future case default by the contractor of which by any clause or clauses hereof he is declared liable to pay compensation amounting to the whole of his security deposit, and the liability of the contractor for past and future compensation shall remain unaffected, in the event of the Superintending Engineer putting in force the powers vested in him under the preceding clause may be, if he so desires, take possession of all or any tools, plants, materials and stores, in

or upon the works, or the site thereof or belonging to the Contractor, or procured by him and intended to be used for the execution of the work or any part thereof, paying or allowing for the same in the account at the contract rates, or in case of these not being applicable, at current market rates to be certified by the Superintending Engineer whose certificate thereof shall be final, otherwise the Superintending Engineer may be noticed in writing to the contractor or his clerk of the works, foreman or other authorised agent require him to remove such tools, plants, materials, or stores from the premises (within a time to be specified in such notice) and in the event of the contractor failing to comply with any such requisition, the Superintending Engineer may remove them at the contractor's expense or sell them by auction or private sale on account of the contractor and at his risk in all respects, and the certificate of the Superintending Engineer as to the expense of any such removal and the amount of the proceeds and expense of any such sale shall be final and conclusive against the contractor.

Clause - 4 : If the contractor shall desire an extension of the time for completion of the work, on the ground of his having been unavoidably hindered in its execution or any other ground, he shall apply in writing to the Superintending Engineer within 30 days of the date of the hindrance on account of which he desires such extension as aforesaid and, the Superintending Engineer shall, if in his opinion (which shall be final) reasonable grounds be shown therefore, authorise such extension of time, if any, as may in his opinion be necessary or proper. The Superintending Engineer shall at the same time inform the contractor whether he claims compensation for delay.

In case where the sanction of higher authority to grant extension of time is necessary, the Superintending Engineer will send his recommendation to higher authority. If the order of the competent authority is not received within 60 days from the date of receipt of recommendation of the Superintending Engineer, the Superintending Engineer shall grant extension of time under intimation to the concerned authorities so that the contract shall remain in force, but while communicating this extension of time he must inform the contractor that extension is granted without prejudice to Government's right

Contractor remains liable to repay compensation if action not taken under clause –6
Power to take possession of or require removal of or sell contractors plants.

Extension time

to levy compensation under relevant clause of the Agreement.

Clause - 5 - On completion of the work, the contractor shall be furnished with a certificate by the Superintending Engineer (hereinafter called the Engineer-in-charge) of such completion, but no such certificate be given nor shall the work be considered to be completed until the contractor shall have removed from the area of the premises (to be distinctly marked by the Superintending Engineer in the site plan) on which the work shall be executed all scaffolding surplus materials and rubbish, and cleared off the dirt from all wood-work, doors, windows, walls, floors or other parts of any building in upon or about which the work is to be executed, or of which he may have had possession for the purpose of the execution thereof, nor until the work shall have been measured by the Officer of the Department of Water Resources in accordance with the rules of the department whose measurements shall be binding and conclusive against the contractor, if the contractor shall fail to comply with the requirements of this clause as to removal of scaffolding surplus materials and rubbish and cleaning off dirt on or before the date fixed for the completion of the work, the Engineer-in-charge may at the expense of the contractor remove such scaffoldings surplus materials and rubbish and dispose of the same as he thinks fit and clean off such dirt as aforesaid and the contractor shall forthwith pay the amount of all expenses incurred and shall have no claim in respect of any such scaffolding or surplus materials; as aforesaid except for any sum actually realized by the sale thereof.

**Final
certificate**

Sub-Clause to Clause - 5 : If in the opinion of the Engineer-in-charge which shall be final and binding on the contractor occupation or utilisation of a portion of the, completed in no way interferes with the progress of a rest of the work the same may be occupied or utilised by or on behalf of the Government under the written order of the Engineer-in-Charge. This will not impede the right of the Engineer-in-charge to get the defects if any rectified by the contractor at his (Contractors) own cost within one year from the date of completion of the whole work provided that the contractor will not be allowed any connection either in the shape of extension of stipulated period or any other monetary compensation on account of such occupation or use.

Clause - 6 : A bill shall be submitted by the contractor each month on or before the date fixed by the Engineer-in-charge for all works executed in the previous month and the Engineer-in-Charge or his subordinate shall take the requisite measurement for the purpose having the same verified and the claim as far as admissible, adjusted, if possible, before the expiry of ten days from the presentation of the bill. If the contractor does not submit the bill within the time fixed as aforesaid, the Engineer-in-charge or his subordinate shall measure up the said work in the presence of the contractor whose countersignature to the measurement list will be sufficient warrant, and the Engineer-in-charge or his subordinate shall prepare a bill from such list which shall be binding on the contractor in all respects. Provided that, if any balance of the 10% security is outstanding from each such payment shall be deducted so much, not exceeding 5% as may be necessary to make up the balance of the security. All such intermediate payments to the contractor shall be regarded as payments by way of advance against the final payment only and not as payments for work actually done and completed and shall not preclude the requiring of bad, unsound and imperfect or unskillful work to be removed and taken away and reconstructed or erected , or any part thereof in any respect, or the accrual of any claim nor shall it conclude, determine, or effect in any way the powers of the Engineer-in-charge under these conditions or any of them as to the final settlement or adjustment of the accounts or otherwise , or in any other way vary or affect the contract.

Payment on
intermediate

certificate be
regarded as

advances and
bill to be

submitted
monthly

Clause - 7 The final bill shall be prepared by the officers of the Department of Water Resources in accordance with the rules of the Department in the presence of the contractor within one month of the date fixed for completion of the work.

Clause – 8 : Stores supplied by Government.

- Deleted-

Clause - 9 The contractor shall have to procure all materials (including cement and steel as per G.O. No.48443/ F Code – 46/ 95 dt: 11.12.1995 with effect from 01.04.1996) at his own cost as required and got it tested and approved as per relevant clauses of the contract before use.

**All materials
to be
procured by
the contractor**

Sub-clause – 9 :The contractor shall execute the whole and every part of the work in the most substantial and workmanlike manner, and both as regards materials and otherwise in every respect in strict accordance with the specifications. The contractor shall also confirm exactly, fully and faithfully to the designs, drawings and instructions in writing relating to the work signed by the Engineer-in-Charge and lodged in his office, and to which the contractor shall be entitled to have access at such office, for the purpose of inspection during office hour and the contractor shall, if he so requires, be entitled at his own expenses to make or cause to be made copies of the specification, and of all such designs, drawings and instructions as aforesaid.

**Works to be
executed in
accordance
with
specification
drawing and
orders, etc.**

Clause -10 The Engineer-in-Charge shall have power to make any alterations in or additions to the original specifications, drawings, designs and instructions that may appear to him necessary and advisable during the progress of work and the contractor shall be bound to carry out the work in accordance with any instructions which may be given to him in writing signed by the Engineer-in-Charge and such alteration shall not invalidate the contract, and any additional work which the contractor may be directed to do in the manner above specified as part of the work shall be carried out by the contractor on the same conditions in all respects on which he agreed to do the main work, and at the same rates as are specified in the tender for the main work. The time for Rates of work not in estimate or schedule of rates of the district. the completion of the work shall be extended in the proportion that the additional work differs to the original contract work and the certificate of the Engineer-in-Charge shall be conclusive as to, such proportion. And if the additional work includes any class of work, for which no rate is specified in this contract, then such class of work shall be carried out at the rates entered in the sanctioned schedule of rates of the locality during the period when the work is being carried on and if such last mentioned class of work is not entered on the schedule of rates of the district, then the contractor shall within seven days of the date of his receipt of the order to carry out the work inform the Engineer-in-Charge of the rate which it is his intension to charge for such class of work, and if the Engineer-in-Charge does not agree to this rate he shall by notice in writing be at liberty to cancel his order to carry out such class of work and arrange to carry it out in such manner as he may consider advisable.

No deviations from the specification stipulated in the contract or additional items of work shall ordinarily be carried out by the contractor, nor shall any altered, additional or substituted work be carried out by him, unless the rates of the substituted, altered or additional items have been approved and fixed in writing by the Engineer-in-Charge. The contractor shall be bound to submit his claim for any additional work done during any month on or before the 15th day of the following month accompanied by a copy of the order in writing of the Engineer-in Charge for the additional work and that the contractor shall not be entitled to any payment in respect of such additional work if he fails to submit his claim within he aforesaid period.

Provided always that if the contractor shall commence work or incur any expenditure in regard thereof before the rates shall have been determined as lastly herein before mentioned, in such case he shall only be entitled to be paid in respect of the work carried out or expenditure incurred by him prior to the date of the determination of the rates as aforesaid

**Do not
invalidate
contractors**

**Extension of
time in
consequence
of alternation.**

**Rates or work
not in
estimate or
schedule of
rates of the
District.**

according to such rates as shall be fixed by the Engineer-in-Charge.

In the event of a dispute, the decision of the Superintending Engineer of the Circle will be final.

Clause - 11: If at any time after the commencement of the work the Governor of Orissa shall for any reason whatsoever not required the whole thereof as specified in the tender to be carried out, the Engineer-in-Charge shall give notice in writing of the fact to the contractor who shall have no claim to any payment or compensation whatsoever on account of any profit or advantage, which he might have derived from the execution of the work in full which he did not derive in consequence of the full amount of the work not having been carried out neither shall he have any claim for compensation by reason of any alterations having been made in the original specification drawings, designs and instruction which shall involve any curtailment of the work as originally contemplated.

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

Clause -12: If it shall appear to the Engineer-in-charge or his sub-ordinate-in-charge of the work, that any work, that any work has been executed with unsound, imperfect or Action and compensation payable in case of bad work. unskillful workmanship or with materials of any inferior description, or that any materials or articles provided by him for the execution of the work are unsound or of a quality inferior to that contracted for or otherwise not in accordance with the contract, the contractor, shall on demand in writing from the Engineer-in-Charge specifying the work, materials or articles complained of notwithstanding that the same may have been inadvertently passed certified and paid for, forthwith rectify or remove and reconstruct the work so specified in whole or in part, as the case may require or as the case may be, remove the materials or articles so specified and provide other proper and suitable materials or articles at his own proper charge and cost, and in the event of his failing to do so within a period to be specified by the Engineer-in-charge in his demand aforesaid, then the contractor shall be liable to pay compensation at the rate of one percent on the amount of the estimate for every day not exceeding ten days, while his failure to do so shall continue and in the case of any such failure the Engineer - in -charge may rectify or remove, and re-execute the work or remove and replace with others, the materials or articles complained of as the case may be at the risk and expense in all respects of the contractor. Work to be open for inspection. Contractor or responsible Agents to be present.

**Action and
compensation
payable in
case of the
work.**

Clause - 13: All work under or in course of execution or executed in pursuance of the contract shall at all times be opened to the inspection and supervision of the Engineer - in-charge and his subordinates and the contractor shall at all times during the usual working hours, and at all other times at which reasonable notice of the intention of the Engineer -in-charge or his subordinate to visit the works shall have been given to the contractor either himself be present to receive orders and instruction, or have a responsible agent duly accredited in writing, present for that purposes. Orders given to the contractor's agent shall be considered to have the same force as if they had been given to the contractor himself.

Work to be open for inspection.

Contractor or responsible agents to be present.

Clause -14: The contractor shall give not less than five days notice in writing to Engineer-in-charge or his subordinate -in charge of the work before covering up or otherwise placing beyond the reach of measurement of any work in order that the same may be measured and correct dimensions thereof be taken before the same is so covered up or placed beyond the reach of measurement and shall not cover up or place beyond the reach of measurement, any work without the consent in writing of the Engineer in charge or his subordinate - in charge of the work and if any work shall be covered up or placed beyond the reach of measurement without such notice having been given or consent obtained,, the same shall be uncovered at the contractor's expense, or in default thereof no payment or allowance shall be made for such work of the materials with which same was executed.

Notice to be given before work is covered up.

Clause -15: If the contractor or his work people, or servants shall break, deface injure or destroy any part of a building in which they may be working or any building, road, fence, enclosure, or grass land or cultivated ground continuous to the premises on which the work of any part of it is being executed or if any damages shall happen to the work while in progress, from any cause whatever or any imperfection became apparent in it within three months from the date of final certificate of its completion shall have been given by the Engineer-in Charge, as aforesaid the contractor shall make the same to be made good by other workmen and deduct the expenses (of which the certificate of the Engineer-in-Charge shall be final) from any sums that may be then, or at any time thereafter may become due

Contractor is liable for damages to the work and for imperfection within three months of final certificate.

to the contractor, or from his security deposit or the proceeds of sale thereof, or of a sufficient portion thereof and the contractor shall be liable to pay any part of the expenses not so recovered by the Engineer-in-charge.

Clause -16: The contractor shall supply at his own cost all materials (except such special materials, if any as may in accordance with the contract be supplied from the Engineer -in -charges stores), Plant, tools, appliances, Implements, ladders, cordage, tackle scaffolding and temporary works requisite or proper for) the proper execution of the work whether original, altered or substituted, and whether included in the specification or other documents forming part of the contract or referred to in these conditions or not to which may be necessary for the purpose of satisfying or complying with the requirement of the Engineer-in Charge as to any matter as to which under this conditions he is entitled to be satisfied which he is entitled to require together with carriage therefore to and from the work. The contractor shall also supply without charge the requisite number of persons with the means and materials necessary for the purpose of setting out works, and counting, weighing and assisting in the measurement of examination at any time and from time to time of the work or the materials. Failing him so doing the same may be provided by the Engineer-in-Charge at the expense of the contractor under the contract or from his security deposit or the proceeds of sale thereof, or of a sufficient portion thereof. The contractor shall also provide all necessary fencing and lights required to protect the public from accident, and shall be bound to bear the expenses of defense of every suit, action or other proceedings at law that may be brought any person for injury sustained owing to neglect of the above precautions, and to pay damages and cost which may be awarded in any such suit, action or proceedings to any such person or which may with the consent of the contractor be paid to compromise any claim by any such person.

Contractor to supply plant, ladders, scaffolding etc. And is also liable for damages arising from non-provision of lights, fencing etc.

Clause -17: No female labourer shall be employed within the limits of a cantonment. And is liable for damages arising from non-provision of light fencing etc. The contractor shall not employ for the purpose of this contract any person who is below the age of Fourteen years, and shall pay to each labourer for the work done by such labourer, wages not less than the wages paid for similar work in the neighborhood.

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

Explanation - Fair wages means wages whether for time of piece work prescribed by the State DOWR provided that where higher rates have been prescribed under the minimum wages Act. 1948 wages at such higher rates would constitute Fair Wages.

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

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

Clause - 18: The contractor shall not be assigned or sublet without the written approval of the Superintending Engineer. And if the contractor shall assign or sublet his contract or attempt to do so or become insolvent or commence any insolvency, proceedings or make any composition with his creditor or attempt to do so or if any bribe, gratuity, gift, loan, perquisite reward, or advance, pecuniary or otherwise, shall either directly or indirectly be given, promised, or offered by the contractor, or any of his servants or agents to any public officer or persons in the employ of Government in any way relating to his office employment, or if any such officer or person shall become in any way directly or indirectly interested in the contract, the Superintending Engineer may there upon by notice in writing rescind the contract and the security deposit of the contractor shall there upon stand forfeited and be absolutely at the disposal of Government and the same consequences shall ensue if the contract had been rescinded under the clause 2 thereof, and in addition the contractor, shall not be entitled to recover or be paid for any work thereto for actually performed under the contract.

Work not to be sublet. Contract may be rescinded and security deposit forfeited for subletting bribing or if contractor becomes insolvent.

Clause -19 All sums payable by way of compensation under any of these conditions shall be considered as reasonable compensation to be applied to the use of Government without reference to the actual loss or damage sustained and whether or not any damage shall have been sustained

Sum payable by way of compensation to be considered as reasonable compensation

**without
reference to
actual loss.**

Clause - 20 In the case of a tender by partners, any change in the constitution of the firm shall be forth with notified by the contractor to the Engineer-in-charge for his information.

**Changes in
constitution
of firm**

In case of failure to notify the change in the constitution within fifteen days the Engineer-in-charge may by notice in writing rescind the contracts and the security deposit of the contractor shall thereupon stand forfeited and be absolutely at the disposal of Government and the same consequences shall ensure as if the contract had been rescinded under clause-2 hereof, and in addition the contractor shall not be entitled to recover or be paid for any works therefore actually performed under the contract.

Clause - 21 All works to be executed under the contract shall be executed under the direction and subject to the approval in all respects of the Superintending Engineer of the Circle for the time being who shall be entitled to direct at what point or points and in what manner they are to be commenced and from time to time carried on.

Clause -22 : DELETED

Clause - 23 : When the estimate on which a tender is made includes lump sums in respect of parts of the work the contractor shall be entitled to payment In respect of the Items of work involved or the part of the work in question at the same rates as are payable under this contract for such items, or if the part of the work in question is not, in the opinion of the Engineer-in-charge capable of measurement, the Engineer-in-charge may by his discretion pay the lump sum amounts entered in the estimate, and the certificate in writing of the Engineer-in-charge shall be final and conclusive against the contractor with regard to any sum or sums payable to him under the provisions of this clause.

**Lump sums in
estimate.**

Clause - 24 In the case of any class of work for which there is no such specification as is mentioned in the rule I, such work shall be carried out in accordance with Circle specification and in the event of there being no circle specification, then in such case the work shall be carried out in all respect in accordance with the instructions and requirements of the Engineer-in-charge.

Clause - 25: The expression "work" or "works" where used in these conditions shall, unless there be something either in the subject or context repugnant to such construction, be construed, and taken to mean the works by or by virtue of the contract contracted to be executed, whether temporary or permanent, and whether original, altered, substituted or additional.

Clause - 26 Government shall be entitled to recover in full from the contractor any amount that the Government may be liable to pay under Workman's compensation Act VII of 1923 to any workman employed in course of execution of any part of the work covered by these contract.

Clause - 27 That the purpose of jurisdiction in the event dispute if any, the contract should be deemed to have been entered into within the state of Orissa and it is agreed that neither party to the contract or of agreement will be competent to bring a suit in regard to the matters covered by this contract at any place outside the state of Orissa.

Clause - 28 The department will have the right to inspect the scaffolding and centering made for the work and can reject partly or fully such structure if found defective in their opinion.

clause - 29 : Sanitary arrangements will be made by the contractor at his own cost for his labour camp.

Clause - 30 The contractor shall bear all taxes including sales tax, Income tax, royalty, fair-weather charges, GST, labourcess and tollage etc., where necessary.

Clause 31:- Price Adjustment.

31. Contract price shall be adjusted for increase or decrease in rates and price of labour,
1 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 advanced 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.

31.2 To the extent that full compensation for any rise or fall in costs to the contractor in the contract 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 formula (e) for adjustment of

prices are

31 (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 accordance with the following formula.

$$V_m = 0.85 \times P_m / 100 \times R \times (M_1 - M_0) / M_0$$

V_m Increase or decrease in the cost of work during the month under consideration due to the change 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 the published by the Ministry of commerce and Industry, Government of India, New Delhi.

M_1 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.

31 (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.

$$V_c = 0.85 \times P_c / 100 \times R \times (C_1 - C_0) / C_0$$

V_c Increase or decrease in the cost of work during the month under consideration due to change in the rates for 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.

31 (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.

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

V_s Increase or decrease in the cost of work during the month under consideration

due to change in the rates for steel

S_0 The all India wholesale price Index for Ordinary Portland 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_1 = 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.

31 (a) (iv) Adjustment for steel 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 change in the rates for bitumen.

B_0 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_1 = 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.

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

31 (a)(v) : Adjustment towards differential cost of pipes.

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

V_{pi} $0.85 \times P_{pi} / 100 \times R \times (P_{i1} - P_{i0}) / P_{i0}$

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_{i1} = 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.

31 (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.

$$V_L = 0.85 \times P_l / 100 \times R \times (L_1 - L_0) / L_0$$

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

L_0 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_1 = The minimum wages for skilled labour as Notifies Government of Odisha as prevailed on the date of the month previous to the one under consideration.

P_l = Percentage of labour component of the work.

31 (C) Adjustment for POL (fuel and lubricant) component

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

$$V_f = 0.85 \times P_f / 100 \times R \times (F_1 - F_0) / F_0$$

V_f Increase or decrease in the cost of work during the month under consideration due to change in the rates for fuel and lubricant.

F_0 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.

F_1 = The official retail price of HSD at the existing consumer pumps of IOC/ BPCL/ HPCL at the nearest center for the 15th day of the month under consideration

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

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

31 (D) Adjustment for plants 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.

$$V_p = 0.85 \times P_p / 100 \times R \times (P_1 - P_0) / P_0$$

V_p Increase or decrease in the cost of work during the month under consideration due to change in the rates for plants and under machinery spares.

P_0 The all India wholesale price index for manufacture of machinery for mining, quarrying and construction of 28 days preceding the date of opening of Bids as published by the Ministry of commerce and Industry, Government of India,

New Delhi.

P_1 = 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.

P_p = Percentage of plants 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 fuel and lubricant 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.

SI 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 of mining quarrying and construction.

31 (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 of 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 Govt. 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 required any document and information kept. The contractor shall with in a reasonable of item of 15days of this becoming aware of any alternation in the price of such materials, wages of labour and / or price of POL give notice thereof to the Engineer in charge stating that the same is given pursuant to this condition alongwith information relating to there to which he may be in a position to supply.

Percentage Table

Sl no	Category of works		% component (cost wise)		
			Labour (P _l)	PO L (P _f)	Steel (P _s) + Cement (P _c) + Bitumen (P _b) + pipes (P _{pi}) + Plant and machinery spare and component (P _p + Other materials).
1	R&B works(% of component)	Road works	5	5	90
		Bridge work	5	5	90
		Building works	5	5	90
2	Irrigation works (% of component)	Structure works	5	5	90
		Earth, canal & embankment works.	5	5	90
3	PH work	Structural work	5	5	90
		Pipe line work	5	5	Pipe 70% Machinery + other materials 20%
		Sewer line	5	5	Pipe 70% Machinery + other materials 20%.

Note: Further breakup may be worked out considering the consumption of cement, steel, bitumen, pipe , plant & machinery spare . Component in the concerned works and shall be provided in the bid document inshape of "Schedule of adjustment data " as an " Appendix to bid" (enclosed herewith).

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. **
31(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.			%
31(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.			%
31 (a) (iii)	Steel	Whole 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.			%
31 (a) (iv) 31 (a) (v)	Bitumen (VG-30)	Office retail price of bulk bitumen at the nearest IOC / HPCL depot.			
	Pipes	Pipe under consideration, as published by the office the Economic Advisor to the Govt. of India . Ministry of Commerce and Industry.			
31(b)	Labour	Minimum Wage notified by the Labour and Employee's State Insurance Department of Government of Odisha, India.			5%
31 (c)	POL	Official retail / price of HSD at nearest IOCL / HPCL / BPCL Consumer Pump depot.			5%
31 (d)	Plant and Machinery	Whole sale price index for Manufacture of Machinery for Mining, Quarrying and Construction as published by the office the Economic Advisor to the Govt. of India, Ministry of Commerce and Industry.			%-
			Total		100%

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

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

Clause – 32 After the work is finished all surplus material and debris are to be removed by the contractor and preliminary works such as vats, mixing platforms etc. are to be dismantled and all materials removed from site.

AIR WAGE CLAUSE

Clause – 33(a) The contractor shall pay not less than fair wage to labourers engaged by him on the work.

Explanation: “Fair wages” means wages, whether for time or price work prescribed by the State Public works Department provided that where higher rates have been prescribed under the Minimum Wages Act, 1948 wages at such higher rates would constitute “Fair wages” (W.D. No.22059 dt.16.8.77)

- (b) The contractor shall, notwithstanding the provisions of any contract to contrary cause to be paid a fair wage to labourers indirectly engaged on the work including any labour engaged by his sub contractors in connection with the said work, as if the labours had been immediately employed by him.
- (c) In respect of all labour directly or indirectly employed in the works for the performance of the contractor's part of this agreement, the contractor shall comply with or cause to be complied with all regulation made by Government in regard to payment of wages, wage period deductions from wages, recovery of wages not paid and deductions unauthorisedly made, maintenance of wages register, wage cards, publication of scale of wages and other terms of employment, inspection and submission of periodical returns and all other matters of a like nature.
- (d) The Superintending Engineer or Sub-Divisional Officer concerned shall have the right to deduct, from the money due to contractor, any sum required or estimated to be required for making good the loss suffered by a worker or workers by reason of non fulfillment of the conditions of the contract for the benefit of workers nonpayment of wages or of deductions made from his or their wages, which are not justified by their terms of the contract” or non-observance of the regulations, money so deducted should be transferred to the workers concerned.
- (e) Vis-à-vis the Government of Odisha, the contractor shall be primarily liable for all payments to be made under and for the observance of the regulations aforesaid without prejudice to his right to claim indemnity from his sub contractor.
- (f) The regulations aforesaid shall be deemed to be part of this contract and any breach there of shall be breach of this contract.
- (g) Under the provision of the Minimum Wages Act, 1948 & minimum wages (Central Rules, 1950) the contractor is bound to allow or cause, to allow to the labourers directly or indirectly employed in the works one day rest for six days continuous work and pay wages at the same rate as for duty, in the event of default. The Superintending Engineer or Sub-Divisional Officer concerned shall have the right to deduct the sum not paid on account of wages for weekly holiday to labourers and pay the same to the persons entitled there to from any money due to the contractor.

- (h) The contractor shall at his own expense provide or arrange for the provision of foot wear for any labour doing cement mixing work and black topping of roads (The contractor has undertaken to execute under this contract) to the satisfaction of the Engineer-in-charge and on his failure to do so Government shall be entitled to provide the same and recover the cost from the contractor.
- (i) The contractor shall submit by the 4th & 19th of every month, to the Engineer-in-charge a true statement showing in respect of the second half of the preceding month and the first half to the current month respectively (1) the number of labours employed by him on the work (2) their working hours (3) the wages paid to them (4) the accident that occurred during the said fortnight showing the circumstances under which they happened and the contend of damage and injure caused by them and (5) the number of female workers who have been allowed maternity benefit according the clause [K] and the amount paid to the Government a sum not exceeding for each default of materially incorrect statement. The amount levied as fine as per decision Rs.280.00 of the Superintending Engineer shall be final in deducting from any bill due to contractor.
- (j) In respect of all labour directly employed in the works for the performance of the contractor's part of this agreement, the contractor shall comply with a cause to be complied with all the rules framed by Government from time to time for the protection of health and sanitary arrangement for workers employed by the Odisha Public Works Department and its contractor. This will apply to work places having 50 or more workers.
- (k) Maternity benefit rules for female worker employed by contractor.

Clause -34: The royalty of materials will be recovered from the work bill in case of failure of production of proper receipt from quarry Holder or Revenue Department after proper verification from Concerned Tahasildar.

Clause -35: Amount. Specified may vary and the work will be taken up as per availability of funds No claim what-so-ever in this regard will be entertained.

Clause-36: (a) The earth work quantity will be assessed from cross section taken at suitable intervals as decided by the **Superintending Engineer, Harabhangi Irrigation Division, Adava, Dist.- Gajapati** initial levels will be taken with reference to bench marks, which should be kept at site till finalization of their contract. The initial cross section papers should be signed by both the parties before starting earth work. The final cross section of the embankment in filling reaches when finished to designed section will be taken for each portion of embankments and plotted over the initial level section to ascertain the final quantity to be arrived by deducting necessary settlement allowance. The measurement for earth work should be at 30 M or at closer grid.

(b) Stone to be excavated shall be measured in solid normally, but if the site condition do not permit solid measurement as assessed by the Engineer-in-Charge due to a mixture of various rock in the particular location, stack measurement will be taken at the direction of the Engineer-in-charge from the stacks to be measured. Deduction shall be made for voids at 40 % minimum

for closely packed stacks subject to increase in percentage according to the nature of compactness in stacking. No consideration will be given to any adverse condition by the contractor in his tender.

(c) Rubble stones, boulders, rough stones, soling stones are measured by volume of closely packed stacks 1/6th volume for voids shall normally be deducted from closely packed sacks percentage of void shall be determined an actual observation and deducted.

(d) 12 ½ voids shall be deducted from metal and moorum stacks. The box of size 1.5m X 1.5m X 0.5 m to be measured as 1.5m X 1.5m X 0.44 = 1 cum. Similar measurement to be adopted for gravel stacks also and voids deducted. The rates are excluding voids.

Clause-37: Curing of all cement works will be done by the contractor as per instruction of the Engineer-in-charge at his own cost.

Clause-38: Dewatering of any magnitude either of excavation of foundation to finished section and laying concrete or masonry work or any structure when and wherever necessary during complete execution period will have to be done by the contractor at his own cost. This is treated to be inclusive of his tendered rate.

Clause-39: (a) The contractor should keep himself in constant touch with the Engineer-incharge for smooth execution of work and arrange for adequate labourer depending on the work load and working place available. No claim for idle labour on any account will be entertained.

(b) The contractor is fully responsible for safe guard of the Govt. property entrusted to him.

Clause-40: No extension of time shall be allowed to the contractor, however it may be considered in case of exigencies like natural calamities only. The extension of time may be allowed if authority feels necessary. But no claim for monetary compensation will be entertained under any circumstances.

Clause-41: After completion of the work the contractor shall arrange at his own cost all requisite equipments and labour for testing the work and bear the entire cost of such test.

Clause-42: All correspondence with the tenderer will be made through e-mail in the e-mail address given by the tenderer. The tenderer must mention in the tender, his correct e-mail address where letters can be delivered to him. The department will not held responsible for non receipt of any letter/message by the tenderer either for wrong e-mail address given by him or for his negligence in seeing e-mail.

Clause-43: Any jungle clearance needed for borrowing earth beyond the toe of the embankment beyond the excavation limits is the responsibility of the contractor and no extra payment will be made.

Clause-44: Earth work beyond the theoretical designed will not be paid for.

Clause-45: Construction of coffer dams or islands or the works of open excavation or dressing required for construction of structure and approach drain should be included in the rates.

Clause-46: The contractor should take all precautions to protect the structures from flood damages at his own cost during the period of execution. Damages if any caused by the probable flood during monsoon till completion and handing over of entire work will be made by the contractor at his own cost.

Clause-47: By submitting a tender for the tenderer will be deemed to have satisfied himself by actual inspection of the site/quarry and locality of the work about the quality and availability of the required quantity of materials including medical aids, labour and food stuff etc. and that the rates quoted by his in the tender will be adequate to complete the work according to the

specification and conditions attached to and that he has taken into account all conditions difficulties that may be encountered during its progress and to have quoted labour rates and materials, octorai and other duties leads, lifts loading and unloading and 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 sub-ordinates. After acceptance of the contractor rates Govt. will not pay any extra charges for any reason in case the contractor is found later on to have misjudged in conditions as regards availability of materials, labour or any other factors, it should be understood clearly that no claim whatsoever will be entertained afterwards on the plea of non-availability of proper quantity of materials including food stuff or any other cause.

Clause-48: It shall be distinctly understood that it is entirely the responsibility of the contractor to make such arrangement as may be required from time to time to protect the men, machinery, materials and the work under progress and work for which the measurements were recorded and a payment made.

Clause-49: The embankment slopes and banks will be maintained by the contractor till the final payment is made and any rain cuts, sides settlements that would occur should be made good by him at his own cost without any claim.

Clause-50: (a) There will not be any compensation or extension of time granted for reason of adequate cash flow.

(b) Works could be suspended depending on availability funds and no compensation will be admissible on this accord except sanctions of extra time.

(c) No compensation / claim for delay in sanction of deviation / extra items and payment thereof will be admissible to contractor.

Clause-51: The contractor shall be responsible for compensation of any at his workman under workman's compensation Act.

Clause-52: In case of down loaded tenders received with any addition, alternation & deletion, the approved tender documents available with the Superintending Engineer is binding.

Orissa P.W.D. Electricity Department Contractor's Labour Regulations.

1. Short title : These regulations may be called " The Orissa Public Works department/ Electricity Department Contractor's Regulations .Definitions : In these Regulations unless otherwise expressed or indicated the following words and expression shall have the meaning hereby assigned to them respectively, that is to say:

(1) "Labour" means workers employed by a contractor of the Orissa public Works Department/Electrical Department directly/indirectly through a subcontractor or other person, or by an agent on his behalf.

(2) "Fair Wages" means wages whether for time or piece work prescribed by the State Public Works Department provided that where higher rates have been prescribed under the Minimum Wages Act, 1948 wages at such higher rates should constitute fair wages.

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

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

3. Display of notice regarding wages, etc.

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

(b) Send a copy of such notice to the Engineer-in-charge of the work.

4. Payment of wages

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

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

5. Fixation of wage period.

(1) The contractor shall fix the wage period in respect of which the wages are payable.

(2) No wage period shall exceed one month.

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

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

(5) All payments of wages shall be made on working day.

6. Wage book and wage cards etc. :-

(1) The contractor shall maintain a Wage book of each worker in such form as may be convenient, but the same shall include the following particulars :

(a) Rate of daily or monthly wages.

(b) Nature of work on which employed

(c) Total number of days worked during each wage period.

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

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

(f) Wage actually paid for each wage period.

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

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

7. Fines and deductions which may be made from wages :-

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

(a) Fines.

(b) Deduction for absence from duty, i.e., from the place or places where by the terms of his employment he is required to work. The amount of deductions shall be in proportion to the period for which he was absent.

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

(d) Any other deductions, which the Government may from time to time allow.

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

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

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

8. Register of fines, etc.

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

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

9. Preservation of register :-

The wage register, the wage card and the register of fines, deduction required to be maintained under these regulations shall be preserved for 12 months after date of the last entry made in them.

10. Power of Labour Welfare Officers to make investigation or inquiry:-

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

11. Report of Labour Welfare Officer:-

The Labour Welfare Officer or other authorised as aforesaid shall submit a report of the result of his Investigation or enquiry to the Superintending Engineer concerned indicating the extent. It any to which the default has been committed with a note that necessary deduction from the contractors bill be made and the wages and the other duel be paid to the labour concerned.

12. Appeal against the decision of Labour Welfare Officers:-

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

13. Inspection of Registers

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

14. Submission of return:-

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

15. Amendment- Government of Orissa may from time to time, add to or amend these regulations. On any question as to the application, interpretation of effect of these regulations, the decision of the Labour Commissioner or any other person authorised by the Government of Odisha in that behalf shall be final.

ADDENDUM TO CONDITION OF CONTRACT.

TIME CONTROL.

2.1 Progress of work and re-scheduling programme.

2.1.1. The Superintending Engineer/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.

2.1.2. Within 15 days of issue of the letter of acceptance, the contractor shall submit to the Engineer-in-charge for approval and programme commensurate to clause no 2 showing the general methods, arrangements, and timing for all the activities in the works along with monthly cash flow forecast.

2.1.3. 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 of the work before 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.

2.1.4 If at any time it should appear to the Engineer-in-charge that the actual progress of the works 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 over dues programme has been submitted.

2.1.5 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.

2.1.6 The Engineer-in-charge's approval of the programme shall not alter the contractor's obligations. The contractor may revise the programme submit it to the Engineer-in-charge again at any time. A revised programme is to show the effect of variations and compensation events.

2.2. Extension of the Completion date.

2.2.1 The time allowed for execution of the work as specified in 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 and performance guarantee/security deposit absolutely.

2.2.2 As soon as possible after the contract is concluded the contractor shall submit a time and 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 section of the work and may be amended as necessary by agreement between the Engineer-in-charge and the Contractor within the limitation 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.

2.2.3 In case of delay occurred due to any of the reasons mentioned below, the contractor shall immediately give notice therefore in writing to the Engineer-in-charge but shall nevertheless use constantly his best endeavors 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.

i. War,

ii. Abnormally bad weather or –

iii) Serious loss or damage by fire or iv) Civil commotion, local commotion of workmen, strike or lockout, officers any of the heads employed on the work or v) Delay on the part of other contractors or tradesmen engaged by Engineer-in-charge, in executing work not forming part of the contract. vi) In case of 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

vii) Any other cause, which, in the absolute discretion of the authority mentioned, in contract date is beyond the contractor's control.

2.2.4 Request for re-schedule 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.

2.2.5 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.

2.3. Compensation for delay.

2.3.1 If the contractor fails to maintain the required progress in terms of clause 2 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 Superintending Engineer

(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 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 for delay of work, delay to be computed 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 item 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 date, 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 contract. 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 such milestone missed subsequently also shall be withheld. However no interest, whatsoever, shall be payable on such withheld amount.

2.4 Deleted

2.5 Management of Meetings.

2.5.1 Either the Engineer or the contractor may require the other to attend a management meeting. The business of a management meeting shall be review the plans for remaining work and to deal with matters raised in accordance with the early warning procedure.

2.5.2 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 is 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.

2.6 Percentage rate Contract

(i) In percentage rate contract the schedule of quantities shall mention estimated rate of such item and amount thereof. The contractor has to mention the percentage excess or less over the estimated cost (in figures as well as words) in the prescribed format appended to the tender document.

(ii) The percentage rate contract may be named as **P-1**. In this form **time is the essence**.

(iii) The contractor is required to maintain a certain rate of progress specified in the contract. The contract can also be terminated with penalty when the progress of work is not as per the condition of contract. 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. The period of completion is fixed and can not be altered except in case of exceptional circumstances with due approval of next higher authority.

(iv) In this form of tender, only percentage quoted by the contractor shall be considered. Percentage quoted by the contractor shall be accurately filled in figures and words, so that there is no discrepancy. 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. If any discrepancy is found in the percentage quoted in percentage excess/less and total rate quoted by the contractor, then percentage will be taken as correct. The percentage quoted in the tender without mentioning excess or less and not supported with the corresponding amount will be treated as excess. The contractor will write **percentage excess/less upto two decimal point only**. If he writes percentage excess/less upto two or more decimal points, the first decimal point shall only be considered without rounding off. Where the contractor has omitted to quote the rates either in figures and words, the officer opening the tender should record the omission.

(v) Bills for the percentage rate tender s 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.

RELEVANT PROVISION IN THIS CONTRACT STANDS MODIFIED ACCORDINGLY.

SPECIAL CONDITION OF CONTRACT

1. DEFINITIONS

In the Contract (as hereinafter defined) the following words and expressions

will have the meanings here by assigned to them:

- a) **Approved/Approval-** Means approved in writing.
- b) **Construction Plant-** Means all equipments, appliances or things of whatsoever nature required for the executing, or completion, maintenance of the works or temporary works but does not include materials or other things intended to form or forming part of the permanent work.
- c) **Contract** - Means the instruction and information for tenderers General and Special conditions of the contract, Technical specification, drawings, tender (including the schedule of quantities and tender prices) the formal agreement and all agenda and attachment related to the above.
- d) **Contractor-** Means the particular person, firm or Corporation with whom the contract has been made for executing the work.
- e) **Drawing** - Means the drawings referred to in the specifications, any modifications of such drawings approved in writing by the Engineer-in - charge and such other drawings as may from time to time be furnished or approved in writing by the Engineer-in-charge.
- f) **Engineer-in-charge** - Means the Superintending Engineer, in-charge of the work specified or parts of the works under the contract, or such other departmental assistants or sub-ordinates to whom the Superintending Engineer, in-charge may have delegated certain duties, acting separately within the scope of the particular duties entrusted to them.
- g) **Government** - Means Government of Orissa, Department of Water Resources.
- h) **I.S.S./B.I.S.** - Means Indian Standard Specifications/Bureau of Indian Standard.
- i) **Temporary works** - Means all temporary works of every kind required for the performance of the contract.
- j) **Specification** - Whenever the terms " Specification" is used, apart from a specified standard specification, it shall mean the specification or plan prepared for a particular site as instructed to the contractor in executing that item of work.

2 BID SECURITY DECLARATION:

As per OM No. 1499/W dated 01.02.2023 of Works Department, Govt of Odisha "Security for the due fulfillment of a contract should invariably be taken. The security may be taken in shape of NSC/Post office savings Bank Account/Post Office Time Deposit Account/Kisan Vikas Patra/Bank Guarantee in favour of the Divisional Officer from any Nationalised Scheduled Bank in India counter guaranteed by its local Branch at Bhunaneswar/ e-Bank Guarantee executed on the National e-Governance Services Limited(NeSL) Digital Document Execution Portal towards EMD/initial Security Deposit/any other Security deposit from the Contractor or supplier"

3 TAX CERTIFICATES:

The tenderers are also required to furnish Xerox/attested copy of the valid PAN CARD, ITCC (if any), GST registration certificate along with tender documents failing which the tender may not be considered. The original are to be shown as mentioned in the NIT. The bidders registered

out side the State are required to submit an undertaking in the form of an affidavit that they are not registered under the GST Act in the state of Odisha as they have not started any business in the state and they have no liability under the act. But Bidder has to produce GST registration certificate before signing of the agreement.

4 TIME OF COMPLETION:

The work is to be completed within **12(Twelve) calendar months** including monsoon commencing from the date of issue of order to proceed with the work.

5. PRE BID INSPECTION BY CONTRACTORS:

The tenderers are required to go through each clause of PWD Form carefully in addition to clause mentioned herein before tendering. In any case the tenderer shall be deemed to have carefully examined the tender documents visited the site of work and it's surroundings and satisfied himself as the form and nature of the site approach roads, haul roads, local conditions in general and particularly about the availability of the construction materials, electricity supply, water supply, storage and handling of materials, road communication etc. including requirement and availability of labour and materials needed from complete execution of the work and made an inventory of such information as to the risks, contingencies and other circumstances which would influence or effect his tender before tendering. He should also satisfy himself about the sufficiency of availability of materials in quarry and borrow area. The Department will not be responsible for any misjudgment of the tender on the account for any future claims.

6. VALIDITY OF TENDER:

6.1 The tenderer must furnish copy of Registration Certificate, GST Regd. Certificate, PAN Card / Affidavit the A.I.T as specified in NIT, otherwise his/her bid shall be declared as non-responsible & shall be liable for rejection.

6.2 The rates quoted shall remain valid for a period of **90 (ninety) days from the last date prescribed for receipt of tenders.**

6.3 The tender which is not in the prescribed proforma and is not strictly in accordance with the terms and conditions of the tender call notice is liable for rejection.

6.4 Alternate tenders, conditional tenders and tenders containing indefinite terms will not be entertained. The tenders will be considered given special emphasis on the capability of the tenderer and the implements and earth moving machinery at his disposal for the work.

6.5 The percentage rate quoted should be for finished items of work and for sufficiency as per the description of the schedule of quantity and specification and shall include all taxes including rent, but excluding GST on works contract, but including royalty cess and general and incidental charges pertinent to the work, other charges of materials, octroi duty, ferry tolls, conveyance charges and other costs on account of land and building including temporary building required by the tenderer for collection of materials storage, housing of staff or other purpose for the work. The tenderer must quote the percentage rate for the contract and tenders containing indefinite terms such as estimate rate, schedule of rate shall not be considered. The rates must be for finished items of work unless otherwise mentioned in the tender schedule.

6.6 The rates should be quoted in percentage less or excess up to two decimal.

i) The tenderer shall bear cost of various incidental sundries and contingencies needed by the work of all within the following or similar category.

ii) Labour camps and hutments necessary to a suitable scale including contingency and sanitary arrangements medical aids thereon to the satisfaction of the health authorities.

iii) Water arrangements for labourer as well as for the works. No claim for carriage for water whatsoever will be entertained.

iv) Fees and dues levied by the Municipal and water supply Authorities.

v) Suitable equipment and wearing apparatus for the labors engaged in risky operation.

iv) Suitable fencing, barriers, signals, including parapet and electrical signal where necessary at works and approaches in order to protect the public and employees from accidents.

vii) No compensation for any damage done by rain or by similarly action during execution of the works shall be paid.

6.7 The tender is to be decided as per prevailing codal provisions taking into consideration the capacity of the tenderer and equipments available with him for the work. The authority reserves the right to reject any or all tenders without assigning any reason thereto.

6.8 In order to qualify for consideration for award of the contract the tenderer should satisfy the Bid criteria as stipulated in the technical Bid. To substantiate the tenderer is required to submit authentic records duly certified by the Superintending Engineer of the Department in support of such experience.

6.9 Rate to be quoted by the contractor for various items of work should be consistent and rational. Tenders with inconsistent rates and / or speculative rates shall be liable for rejection.

6.10 The payment for RA bill will be made in level section measurement and no string section measurement will be considered.

6.11 All the tenderer are required to submit along with their tenders declaration about the names of their relatives employed in Water Resources Department in the prescribed proforma appended. In case they have no relation in Water Resources Department a certificate to that effect shall have to be furnished.

6.12 An affidavit shall be furnished by the contractor at the time of submission of tender paper about the authentication of tender documents including E.M.D.

6.13 The conditions in this detailed tender call notice will form part of the agreement to be drawn by the contractor.

7. AWARD OF CONTRACT

7.1 The tenderer whose tender is selected for acceptance shall within a period of fifteen days upon written intimation being given to him by Registered post deposit, initial security deposit so that the EMD and initial security deposit will be 2% (two percentage) of the accepted tender amount and sign the agreement in the PWD Form for fulfillment of the contract in the office of the Engineer-in-charge. This initial security deposit together with the EMD and the amount of 5% deduction from each running bill as per the agreement shall be retained as security deposit for the fulfillment of this contract. This security deposit will carry no interest. Failure to enter into the required agreement and to pay the security deposit as above within the specified period shall entail forfeiture of the earnest money. No tender shall be finally accepted until the required amount of security money is deposited. The written agreement to be entered into between the Contractor and the Govt. shall be the foundation of the rights of both the parties and the contract shall be deemed to be incomplete until the agreement is first signed by the Contractor and then by the Superintending Engineer, the department will accept the initial security deposit in the accepted from prescribed in clauses as above pledged in favor of the Engineer-in - Charge and in no other form. The Security deposit deducted from each running bill will be 5%. If the contractor express his request in writing he will be permitted to convert the security deposit of 5% into interest bearing securities (for an amount not less than Rs. 10.00 lakh in each case which will be pledged in favour of the Superintending Engineer) Successful bidder registered under other state government/MES/Railways/CPWD has to register under the State PWD before signing of the agreement.

7.2. In case of delay in acquisition of land no compensation will be admissible but extension of time will be granted.

7.3. The earnest money deposited by the unsuccessful tenderers will be refunded as per relevant rules in force.

7.4 Super/Special Class contractors shall employ under him one Graduate Engineer and two Diploma holders belonging to the State of Orissa. Likewise an 'A' Class contractor shall employ under him one Graduate Engineer or two Diploma holders belonging to state of Orissa. The employment of such graduate Engineer and Diploma holders under the Contractor shall be full time and continuous and they shall not be superannuated, retired, dismissed or removed personnel from any State Government/Central Government Service / Public Sector Undertakings /Private companies and firm or be ineligible for appointment to Govt. service. The contractor shall pay them monthly emoluments, which shall not be less than the emoluments of the personnel of equivalent qualification employed under the State Govt. of Orissa.

The Chief Engineer Roads, Orissa may however assist the contractor with names of such unemployed Graduate Engineers and Diploma holders if the contractor seeks for such help. The name of such Engineering personnel appointed by the contractor who would be supervising the works should be intimated to the tender receiving authority along with each tender. Each bill of the contractor shall be accompanied by an employment roll of engineering personnel together with certificate of the Graduate Engineer or Diploma holder employed by the contractor to the effect that the work executed as per the bill has been supervised by him.

7.5. No part of the contract shall be sublet without written permission of the Engineer-in-charge or any transfer be made by power of attorney authorizing others to receive payment on behalf of the contractor.

7.6. No tenderer is permitted to furnish their tender in his own manuscript paper.

8. OBSERVATIONS OF LAWS AND LOCAL REGULATIONS ACCIDENTS AND

SAFETY MEASURES:

The Contractor shall observe all State and Local rules and regulations so far as they are relevant in controlling the operations involved carrying out the work and indemnify the Govt and employees of the Govt. against all suite losses, demands, actions, judgments and cost of every kind resulting from the commissions and omissions of the contractor and his employees in violation of the said rules and regulations.

8.1 Department for payment of the compensation under workmen's compensation act VI of 1923 on account of the workmen being employed by him and the full amount of compensation of awarded by any competent court of law to the workmen will be recovered from the contractor and will be paid to the workmen as per direction of the court.

8.2 The contractor shall have to abide by the Labour Laws and Rules in vogue and shall provide at his own cost housing, watering supply, sanitation, medical aid and other facilities to the labours engaged in the work as required under Labour Laws and Regulations. The Contractor shall not employ labour of minor age group.

8.3 The contractor shall have to abide by the safety code introduced by the Govt. of India, Ministry of works. Housing and supply in their standing order No.44 to 50 dated 25.11.57.

8.4 Blasting where required shall be taken up only when proper precaution have been taken for the protection of lives and property in accordance with I.S. 4081 – 1967 safety code for blasting and related drilling operations. Only persons licensed for and thoroughly conversant with the working methods and precaution to be observed in using explosives shall carry out blasting. To avoid the danger of injury from flaying debris, all personnel in a blasting area shall retreat to an adequate cover. While carrying out excavation adequate precautions in accordance with I.S.

3764 – 1966. Safety code for excavation works shall be taken for the safety of workers. The contractor shall have to abide by the blasting rules & regulations.

8.5 In case of any damage to Govt. or public property or to the property owned to any persons of firms or bodies due to negligence or any such action of the contractor resulting in damage or stoppage or work thereby, the contractor shall be liable to be penalized to the extent of the assessed value of the damage or the out turn lost.

9. CHANGE OF ADDRESS OF CONTRACTOR:

The Contractor shall inform the Engineer and the Department any change of his postal address from time to time from the one given in the tender paper and authorize any person with due intimation to the Engineer-in-charge and the Department to receive instruction or communication from the Department on his behalf, failing which the said undelivered instructions and communications published in the notice board of the Engineer-in-charge shall be treated to be intimation to the Contractor and the same shall be binding on him. All the correspondence should be made in English.

10 ARCHAEOLOGICAL FINDINGS

The contractor shall deliver to the Engineer-in-charge all articles of archaeological importance as and when those are found in course of execution.

11. CONTEMPORARY CONTRACTORS

The contractor shall take into consideration the needs and requirements of the other contractors if any, working in the vicinity during the tenure of his contract and shall neither take nor cause to be taken any steps or actions that may cause disruption disturbance to their work, labour or arrangements etc. Any action by the contractor that the Engineer-in-charge in his unquestioned direction may consider as infringement of the above would be considered as a breach of contract and he may take such action against the contractor as deemed fit.

12 TAXES:

a. The rates quoted by the Contractor shall be deemed to include other taxes including royalties of all materials that the contractor will have to purchase for performances of this contract.

b. During the course of contract period deductions of GST on works contract turn over at the source, shall be made from each bill at such rate and conditions as may be required under the provision of Orissa GST Act and Rules.

c. Sales Tax / GST:

GST on works contract will be deducted from each RA bill of the contractor @ as amended from time to time and will be credited to the Govt. account. In case any amendment to the existing provisions is made during the tenure of the contracts, the same will be applicable to this contract.

d. Income Tax:

Deduction of income tax at source and surcharge on income tax will be made from each running account bill for the work at the rate as per Income Tax Act and as amended from time to time. (Present rate **1% in case of Individual Contractor & 2% in case of company, corporation & firm etc.**).

e. 1% of the gross amount of each R/A bills of the contractor will be deducted towards cess on works as amended from time to time

13. INTEREST:

Under no circumstances interest is payable for dues of the Contractor if any lying unpaid or payable for the work.

14. PLANS AND DRAWINGS:

The work has to be carried out in accordance with the Orissa detailed standard specification and relevant I.S. specification pertaining to the tendered items of work and specifications and special conditions appended here to Drawings will be supplied to the contractor to execute the work in general conformity therewith. These drawings will be supplemented by such additional, general and detail drawings or directions as may be considered necessary or desirable as the work progress. No claim will be entertained due to change of drawing. Where details shown on those drawings differ from the requirement of the specifications, the requirement of the specifications shall govern and the contractor shall not work without proper drawings, direction and instructions. He shall check all drawings carefully and bring to the notice of the Engineer-in-charge any error and omissions and discovered, where upon the Engineer-in-charge shall prepare revised additional drawings and specifications as may be required. All such additional general and detailed drawings will be binding on the Contractor under the same terms and conditions as provided in clauses of P1 Agreement. The decision of the Engineer-in-charge with regards to specification is final, for which no compensation or claim will be entertained.

15. CONSTRUCTION PROGRAMME:

i) The contractor shall have to submit the construction programme i.e. the plan and programme of execution for completion of the work at the time of agreement to the Engineer-in-charge. The Engineer-in charge shall have to approve the said construction programme by fixing a pragmatic mile stone with reference to the provisions laid down under clause 2(a) of the condition of the contract, for timely completion of the work and accordingly the work is required to be executed.

ii) If the revised construction programme is required on account of non-completion of work for which Extension of Time is required or for disruption of the execution in the stipulated period, the contractor shall have to submit the same to the Engineer-in-charge along with the Extension of Time application, if extension of time is prayed for or immediately after disruption of the execution mentioning the clear reasons as the case may be, for revision of work programme. The decision of the Engineer-in-charge is final and binding on the contractor. The contractor shall arrange for additional shifts whenever necessary to suit the revised construction programme. No extra payment on this account is admissible. B. The contractor has to make

adequate lighting arrangements for night works wherever necessary in fulfillment of the construction programme at his own cost and no extra payment on this account is admissible.

16. AVAILABILITY OF LABOUR:

Labour required for the work may not be available to the full extent in the locality. The contractor may have to import labour from outside. He shall arrange and regulate the labour strength according to necessity. The Department shall not entertain the claim for any idle labour whether or not at the fault of the contractor or due to any other reasons whatsoever. The contractor's item / Percentage rate in the tendered are deemed to have adequate coverage on account of import and employment of required labours and providing facilities and amenities to them.

17. SUSPENSION OF WORK:

The Engineer-in-charge may from time to time by written orders without in any way deviating the contract, direct the contractor to suspend the work or any part thereof at such time and the contractor shall not after receiving such written order proceed with the work or items thereof ordered to be suspended until he shall have received a written notice from the Engineer-in-charge to proceed with the work again. Should the work be ordered to be suspended directly in the interest of safety of the work due to acts of God or major war or indirectly as a result of the contractor not complying with any of the provisions of the contract in respect of the quality of the materials, workmanship programmed of execution he shall not be entitled to claim any compensation for any loss he may be put to directly or indirectly for such suspension of work.

During the period of suspension of the work the contractor shall properly protect and secure the works as necessary in the opinion of the Engineer-in-charge.

18. ITEMS NOT COVERED IN THE SCHEDULE:

The items of work not covered in the agreement shall be paid in the current schedule of rate of the State and those not covered by the said schedule of rates will be paid on actual analysis approved by competent authority.

19. FORCE MAJOR:

The contractor shall take all precautions to protect the work from damages due to rains, flood, cyclones, fire or by any other natural calamity, public agitation or riots etc and also make good such damage if any at his own cost during the period of execution and till the work is taken over by the Department. No compensation will be paid to the contractor on account of idle laborers due to above reason.

20. TOOLS AND PLANT:

The contractor should arrange necessary tools, plant and machineries for the efficient execution of work at his own cost and the rates quoted should be inclusive of such charges. The department may lend on hire some machinery for use in the work subject to their availability on terms and condition as shall be specified by the Department from time to time and after execution of necessary agreement. But on the plea of non supply of machineries by the Department, the works should not be delayed nor any compensation on such account is tenable nor will the contractor be eligible for any time extension on that score.

21. HAUL ROADS:

All haul roads to Borrow areas and quarries will be constructed and maintained by the contractor at his own cost. The roads so constructed shall be allowed to be used free of cost by agencies working in other reaches including Govt. Department unless other wise restricted by the Engineer-in-charge.

22.a. DEPARTMENTAL STOCK MATERIALS: - DELETED-

22.b. MATERIALS SUPPLIED BY THE DEPARTMENT :

No material can be supplied to the contractor as a principle as per the current policy of Govt. of Odisha vide G.O. No. 48443 / F dt. 11.12.95 effective from 01.04.96. The contractor shall be responsible for procurement of all materials at his own cost and got it tested and approved as per the relevant clauses of the contract before use.

23. CONSTRUCTION SHEDS:

Temporary structures may be erected by the contractor at his expenses for storage sheds, office, residence, labour hutments etc. on the land available with the Department with the permission of the Engineer-in-charge. On completion of the work these structures should be dismantled and the site cleared and handed over to the Department.

23.1. In the event of delay in supply of departmental materials or supply of detailed structural designs for unavoidable reasons, reasonable extension of time will be granted on the application of the contractor. But no claim for monetary compensation will be entertained under any circumstances.

23.2. Any slip debris and other foreign materials deposited on the working region on account of rains, flood or any other cause prior to and during the course of execution and till the work is completely taken over the department have to be cleared by the contractor at his cost. The rates quoted by the contractor shall be inclusive of all such contingencies.

23.3. The contractor shall not interfere with the execution of water supply or electrical arrangements or any other works entrusted to any other agency by the Department at any time during progress of work.

23.4. It shall be the responsibility of the contractor to make such arrangements as may be required from time to time to protect men, machinery and the works against damage due to flood and the department accepts no liability whatsoever for damage or loss on this context.

24. SITE CLEARANCE:

Such portion of the site of work as may be considered necessary for the purpose of alignment and demarcation shall be cleared of jungle, if any by the contractor at his own cost. The limits of the structure within which work will be carried out within the scope of the contractor shall be suitably demarcated by the Department. The contractor has to supply necessary labour at his own cost fixing benchmark pillars/alignment pillars / alignment and pegs and also for layout, leveling and profiling and maintaining the same till completion of the work. The contractor at his own cost will supply cement concrete pillars required for layout. The generally layout and Bench mark pillars already laid out by the Department is to indicate generally this alignment of Canal in the field. The contractor while taking up excavation works will preserve original pillars.

24.1. The contractor should keep him self in touch with the Engineer-in-charge for smooth execution of work and arrange adequate labour depending upon the work load and working space available. No claim whatsoever for detention / idle of labour will be entertained.

25. OTHER CONTRACTORS:

Contractor's operations shall be so planned as to prevent water from his work flowing or finding way in to the neighboring reaches. In the event of water from his reach flowing or finding way into the neighboring or subsequent reaches, the respective contractor shall be liable to pay compensation towards any expenditure incurred and loss or damage sustained by the concerned contractor(s) on account of the said reasons unless they otherwise mutually settle the issue amongst themselves. Provided that if there, by any dispute among the contractors on the account of such compensation arises, the decision of the Engineer-in-charge shall be final and conclusive and binding on concerned contractor.

26. ORDER BOOK:

An order book with pages serially numbered will be issued by the Superintending Engineer shall be maintained by the Sectional Officer systematically till completion of the work and there after surrender it, to the Engineer-in-charge for record. The order book shall be available at the site during work hours for recording instructions relating to the work. Order regarding the work as and when necessary shall be entered in this book by the Superintending Engineer or his

superiors in office with their dated signature in exercise of statutory power vested on them which shall be duly noted by the contractor or his authorized agent with his dated signature. The Executive Sub-ordinate, the in charge of work shall also record his observation of defective work and such orders / observation entered in this book, and noted by the contractor agent shall be considered to have been duly given to the contractor, similarly orders entered by the Superintending Engineer and Chief Engineer shall be deemed to have been duly issued by the Engineer - in - charge for the contract.

27. CLAIM BOOK:

A claim book of pages serially numbered shall be issued by the Superintending Engineer to the contractor who shall maintain it systematically and securely, and shall record in it such items as are not covered by his contract and or claimable as extra claim shall be entered in this book under the dated signature of the contractor or his duly authorized agent at the end of each month.

A certificate should be furnished by him along with those claims to the effect that beyond the claims entered in the book, the contractor has no other claims up-to-date. If in any month there are no claims, a recorded a certificate to that effect should be furnished by the contractor in the claim book. Each claim must be definite and should give also as far as possible the quantities as well as the total amount claimed. The claim book must be submitted regularly by the contractor to the Engineer-in-charge by the 10th day of each month for his orders. Claims not made in this manner are liable to be summarily rejected. The claim book shall be finally surrendered by the contractor to the Engineer-in-charge for record.

28. RULE TO VERBAL ORDER:

It shall be the contractors responsibility to get any verbal orders, instructions or directions confirmed in writing without which no cognizance will be taken of such verbal orders, instructions or directions for settlement of any claim arising thereof.

29. STATUTORY OBLIGATIONS OF CONTRACTOR:

The contractor shall have to arrange water required for the work at his own cost.

29.1. The contractor shall have to construct and maintain coffer dam as required for the work during execution at his own cost.

29.2. Bailing out water from foundation, construction of cross bund dewatering wherever necessary during execution of the work shall have to be done by the contractor at his own cost.

29.3. Gangway, scaffolding or any such arrangements required for the work are to be provided by the contractor at his own cost as per direction of the Engineer-in-charge. The Department will have the right to inspect such arrangement made for the work and reject partly or fully such structures found defective in opinion of the Engineer-In-Charge.

29.4. Department shall not pay compensation to the contractor for the damage occurred to the materials and work entrusted to his due to natural calamities.

30 DEPARTMENTAL RIGHT FOR DEVIATION IN QUANTITIES:

Right is reserved to make such increase or decrease in quantity or item of work mentioned in the schedule attached to the tender notice as may be considered necessary for satisfactory completion of the work and such increase or decrease shall in no way invalidate the contractor.

31. SAFETY OF MACHINERIES:

Unusual flood may occur during the working season. In the event of overtopping or breach in the cofferdam/embankment due to such flood in the working season resulting in flooding of the working area or outside the working area, the contractor shall make his own arrangement to shift the machineries and equipments, materials etc. to a safe place at his own cost. The work shall be resumed after the floods. Necessary reconstruction of the cofferdam / embankment clearing the working area of debris and silt shall have to be done by the contractor at his own cost. Suitable extension of time may however be granted in such eventualities at the request of the contractor, but no compensation whatsoever shall be paid in this regard.

32. CONTRACTOR DYING, BECOMING INSOLVENT, INSANE OR IMPRISONED:

(a) In the event of the death, insanity, insolvency and imprisonment of the contractor or the contractor being a partnership or firm becomes dissolved or being a corporation goes into the liquidation, the contract may be terminated by notice in writing posted at the site of work and advertised in one issue of the local newspaper and all acceptable works shall be paid for after recovering all the contractors due to Govt. there from at appropriate rates to the person or persons entitled to receive and given dishonor-age for the payment.

(b) If the contractor becomes bankrupt or has a receiving order made against him or compound with his creditor or being a Corporation commence to be wound up not being a voluntary winding up for the purpose only an amalgamation or reconstruction or carry on its business under a receiver for the benefit of the creditors of any of them, the Department shall be at liberty.

i) To give such liquidator receiver, or other person the option of carrying out the contract subject to his providing a guarantee for the due, faithful performance of the contract up to an amount to be determined by the Department.

ii) To terminate the contract forthwith by notice in writing to the contractor or to the liquidator or receiver or to any person in whom the contract may become vested and to act in the manner as per prevalent clauses of P1 contract.

33. MEASUREMENT OF EACH WORK SHALL TAKE AS FOLLOWS:

Before commencement of work initial levels and to determine the final measurement of the work, final levels of the ground / river bed and bank or structural work as the case may be, shall be taken in presence of the contractor. The contractor will satisfy himself about the correctness of the initial and final levels entered in the level book issued by the Engineer-in-charge and in token of the acceptance of the said levels the contractor shall have to sign in each page of level book in which the said levels are recorded. Basing on these levels, the gross quantity of work executed by the contractor shall be arrived at. After completion of the work the contractor shall be given a written notice to attend the final measurement. On receipt of the notice, the contractor must have to attend the final measurement failing which the measurement ex-parte shall be taken by the Engineer-in-charge which shall be binding on the contractor. In case of the abandonment of work, if it is decided by the Engineer-in charge that final measurements of executed work shall be taken, the same procedure shall be followed as in case of final measurement on completion of work. It is the responsibility of the contractor to make the site free from all problems to take measurement by the Superintending Engineer or his authorized officer. If, in the opinion of the Engineer-in-Charge, the site is not free from problem for measurement and the contractor does not take any corrective measures to get rid of same, the Engineer-in-Charge shall make the site free from problem to take the measurement at the cost of the contractor and to determine cost involved there of, certificate by the Engineer-in-Charge for the purpose, shall be conclusive and binding.

33.1. The Engineer-in-charge shall decide the contractual matters in accordance with codes, rules and acts in vogue which shall be binding on both parties.

34. REMOVAL OF CONTRACTOR'S MEN:

The contractor shall on the written direction of the Superintending Engineer immediately removed from the works any person employed thereon, who may, in the opinion of the Engineer-in-charge, be incompetent or has misconduct himself. Such person shall not be employed again on the works without the written permission of the Engineer-in-charge.

35. DETAILS CALL NOTICE BEING PART OF CONTRACT:

The detail Tender Call Notice and all the Annexure there to will form the part of the agreement when the work will be awarded to the contractor. All the correspondences made with the contractor and all his correspondences with the department after the tender is received will also be attached with the agreement.

36. FAIR WAGES CLAUSE:

The contractor should abide the fair wage clause introduced by the Govt. and shall not pay less than the fair wages fixed by the Govt. to the laborer engaged by him in the work.

37. LABOUR LICENSE AND REGISTRATION:

The contractor is to furnish labour license as per the relevant labour Act and rules in force before signing the agreement, failing which execution of agreement will not be entertained.

Preference in price will be given to M/s Orissa Construction Corporation Ltd. as per relevant DOWR Govt. Orissa Circular No. 20754 dated 05.06.2002.

38. QUALITY CONTROL AND TESTING:

The quality control organization of department will conduct necessary tests to ensure specifications and quality of execution of work as per standard procedures in vogue. The testing charges of Reinforcing Bar will be borne by the contractor.

39 TESTING OF THE STRUCTURES:

During execution of work, the contractor shall arrange the requisite equipments for testing of the work if found necessary at his own cost.

40 DEFECTS LIABILITY:

The contractor shall be responsible to make good of the defects at his own expense, which may develop or may be noticed before the expiry of one year from the certified date of completion and which is attributable to the contractor. All notices of such defect shall be given to the contractor promptly. In case, the contractor fails to make good of the defects, the Engineer-in-

charge employ other persons/ agencies to make good of such defect, and all expenses consequent thereof and incidental thereto, shall be borne by the contractor.

In the event Government takes over portions of works, as they are completed, the liability of the contractor under this clause for those portions shall extend to a period of one year from the actual date on which portions of the works are taken over to the possession of the Department.

41 ENGINEER-IN-CHARGE'S DECISION:

It shall be accepted as an inseparable part of the contract that in matters regarding materials, workmanship, removal of improper work, interpretation of the contract, drawing and contract specification, mode of procedure and the carrying out of the work, the decision of the Engineer-in-charge, which shall be given in writing, shall be final and binding on the contractor. The Engineer-in-Charge's final authority applies to technical consideration and does not include decisions regarding sums due to or from the contractor for extension of time.

42 PAYMENT OF PRICE ESCALATION IN THE CONTRACT CONTAINING THE

PRICE ADJUSTMENT CLAUSE:

With regard to payment of price escalation during the extended period when the reasons for delay are not attributable to the contractor, it is clarified that where the extension of time is allowed by the Govt. / Higher authorities with the benefit of price escalation in respect of the balance work left for execution, pragmatic revised milestones should be fixed for completion of the balance work. The escalation calculation should be based on the milestones which could have been achieved by the contractor during the agreement period and extended period and should be limited to the quantities stipulated therein. Payment of price escalation during extended period will be paid subject to approval of the same by the Competent Authority.

43. SETTLEMENT OF DISPUTE:

If the contractor considers any work demanded of him to be outside the requirements of the contract or considers any drawing record or ruling of the Engineer-in-charge, on any matter in connection with or arising out of the contract or carrying out of work to be unacceptable, he shall promptly ask the Engineer-in-charge in writing for written instruction or decision. There upon the Engineer-in-charge shall give his written instructions or decision within a period of thirty days of such request. Upon receipt of the written instruction or decision, the Contractor shall promptly proceed without delays to comply with such instruction or decision. If the Engineer-in-charge fails to give his instructions or decision in writing within a period of thirty days after being requested or if the contractor is dissatisfied with the instruction or decision of

the Engineer-in-charge, the contractor may within thirty days after receiving instructions or decision of the Engineer-in-charge will approach to the higher authority who shall afford an opportunity to the contractor to be heard and to offer evidence in support of his appeal. The Authority shall give his decision within a period of thirty days after the contractor has given the said evidence in support of his appeal, which shall be binding upon the contractor.

44. RESOLUTION OF DISPUTES:

- a) All claims are to be settled by a Civil Court of Competent jurisdiction by way of Civil Suit.
- b) The contractor shall not be entitled to invoke Civil Suit until and unless he has completed the work or until the Govt. has made alternative arrangements for completion of work in question as the case may be.
- c) The pendency of Civil Suit proceedings shall not dis-entitle the Government for completion of the work.

45. JURISDICTION OF COURT:

For the purpose of jurisdiction in the event of dispute, if any contractor should be deemed to have entered into within the State of Orissa and it is agreed that neither party to the contract has the right to bring a suit in regards to the matter covered by the agreement or contract at any place outside the state Orissa.

45.1. If any further necessary information is required, the Engineer-in-charge will furnish such information on written request, but it must be clearly understood that tender must be received in order and according to instruction / specifications appended herewith.

46. Deleted

47 CEMENT:

The Cement manufactured inside the State of Orissa is to be used as mentioned in Technical Specification.

48. STEEL:

Reinforcement bar manufactured by Steel Authority of India Ltd. (SAIL) / RINL is to be used.

49. ROYALTY OF CONSTRUCTION MATERIALS:

Royalty of construction materials at the rate specified by the Government of Orissa will be recovered from the bills of contractor unless the contractor produces proof of payment of royalty at the source in shape of K-Form.

SECTION – 5

TECHNICAL SPECIFICATION

TECHNICAL SPECIFICATION

CHAPTER – 1

1.0. GENERAL INFORMATION

1.1. The work under specification pertains to **“Peripheral Development of Harabhangi Dam of Mohana Block (Dam site park and hill top development projects at Harabhangi Dam, Adava, Gajapati)”** The information and data relating to work and site conditions described hereafter represents the site condition in a general way. It shall be presumed that the contractor satisfies himself as to nature and location of work in general, land, local conditions particularly on the power and handling, storage of materials, disposal of soil, foundation data and bore hole data and etc., before arriving at his rate. The department therefore will not bear any responsibility for any inference on the site condition and consequence thereof.

1.2. Availability of labour:

Labour required for the work may be available to some extent at the project area. The contractor must, however, make his own arrangements to fulfill his requirement.

1.3. Towns

Berhampur a well developed town with railway station which is about **30 Kms** from working site.

1.4. Access to site:

The site is accessible by all weather existing roads.

The department shall not be liable for compensation due to hindrance caused by the regular pedestrian traffic, and in the event of breakdown in communication for closure of the roads due to repairs or for any reason. It is the responsibility of the contractor to make all arrangement for development and maintenance of haul road and approach road as per his requirement as and when required.

1.5. Availability of Diesel and Lubricants :

Pumps for supply of diesel, petrol and other lubricants are located at **Adava**.

1.6. Electric Power for construction purpose:

1.6.1. The Contractor himself is to arrange for requirement of power for the work.

1.6.2. The contractor shall enter agreement with Tata Power Southern Odisha Distribution Limited (TPSODL) for taking electricity consumption and payment as per requirement of the contractor.

1.6.3. The electrical energy consumed by the contractor shall be measured by suitable metering arrangement to be installed by the contractor on approval of TPSODL at the point of supply.

The meter will be sealed in presence of the contractor or his authorized agent and readings will be taken every month for finding the electricity consumed.

1.6.4. Tariff Rate:

The tariff rate for consumption of electricity will be in accordance with Electricity (supply) Act, 1948 and Tata Power Southern Odisha Distribution Limited (TPSODL) (General Conditions of Supply) Regulations 1981 as amended from time to time.

1.6.5. Observance of Rules

1.6.5.1. The distribution of power to the contractor's colony, equipments etc. from the one point supply will be done by the contractor at his own cost.

1.6.5.2. The contractor shall observe all the conditions required under rule 45 (i) of Indian Electricity Rules (1956) and other pertinent rules for carrying out the electrical installation works in his premises. Power supply to the installations not satisfying the Indian Electricity Act and Rules is liable to be cut off and the department will not have any responsibility for any losses and damages caused for the above.

1.6.5.3. The contractor shall take all precautions to ensure safety of the workers engaged in his electrical lines and installations. The department will not have any responsibility for any accident that may occur in contractor's installation.

1.6.5.4. In case of break-down in power supply for any reason what-so-ever the department is not liable for compensation.

1.6.5.5. The contractor shall take action to rectify the defects, if any, in the installations when pointed out by the Engineer-in-charge or TPSODL in a reasonable time.

1.6.5.6. The Contractor shall permit the department to draw power required for the departmental works, if any from the contractors L.T. lines as and when required by the department. The department will pay the contractor for such consumption at the prevailing tariff rate of TPSODL.

1.7. Housing

Private houses may not be available at project site but available at **Adava**Land for the construction of temporary houses for the labour may be arranged by the agency at his own costs.

1.8. Medical Aid

There is a Government Hospital at **Adava** which provides free treatment. The contractor shall however make at his own cost first-aid arrangements at the various work sites in accordance with the labour rules and regulations and as directed by the Engineer-in-charge.

1.9. Post, Telegraph & Telephones

Postal and Telegraphic facilities are available at **Adava**. Telephone connections are also available at **Adava** and the same can be availed by the contractor at his own cost.

1.10. Local Roads

The existing approach roads to the site of work to the extent available shown in the map enclosed can be used by the contractor. The contractor shall, however construct and maintain connecting roads within the working areas and in his Labour colony areas at his cost. The contractor shall construct and maintain haul roads and other approach roads etc., as may be necessary for the proper execution of the work.

1.11. Dump Areas.

Materials excavated from the foundations and in connection with other items of work shall be dumped as directed by the engineer-in-charge from time to time. The contractor shall construct and maintain all roads to the working areas for excavation of foundations, laying of concrete etc., at his own expense.

1.12. Other Contractors.

In the matter of dumps, haul roads, diversions, excavations for the foundations etc., the contractor shall take into consideration the needs and requirements of other contractors, if any, working in the vicinity. There should be proper and adequate co-ordination between the working in the vicinity. Further the contractor shall not make or cause discontent or disturbance to the work, labour or arrangements etc. of other contractors in the neighboring and the project localities.

1.13. Use of Site.

1.13.1. Contractors will be permitted to use without any charge the site and all lands under the control of project organization as required for execution of work. The Contractor shall not commence any operation on such lands except with the prior approval of the Engineer-in-charge.

1.13.2. All areas of operations including those for his staff and labour colonies handed over to the contractor shall be cleared and handed over to the Engineer-in-charge after completion/recession of contract. While handing over, the contractor shall make good to the

satisfaction of the Engineer-In-charge any damage or alteration made to areas or to other property or land handed over to him for purpose of these work.

1.13.3. Temporary structures may be erected by the contractor for storage sheds, office, residence etc., for non commercial use on the land handed over to him at his expenses and with the permission of the Engineer-in-charge. At the completion of the work, these structures should be dismantled and the site cleared and handed over to the department. The lands required for providing amenities in connection with the work will be given free of cost from the Government lands as shown in the plan enclosed.

1.14 Floods

1.14.1. In case of flash and untimely floods in the river / nalla during the working season resulting in over-topping of coffer dam and flooding of the work area, the contractor shall make his own arrangements at his cost to shift the machineries, equipments, materials, labour and departmental machineries if hired by the contractor to a safe place. The work shall have to be resumed after receding of floods and necessary strengthening of coffer dam and dewatering will be done by the contractor at his cost. Extension of time for the completion of the procurement processes may be considered by the employer if the discontinuance of the work is beyond the all reasonable attempts of the contractor to thwart such eventualities.

1.14.2. The silt, debris, sand and other materials accumulated in the working area during flash floods or regular floods in the monsoon shall be removed by the contractor as required for continuing the work at his own cost. By any chance, if any excavated portion that could not be filled with concrete by the contractor gets filled up during the monsoon period with earth and silt, its removal will not be paid for again. The contractor will have to re-excavate the same at his own cost.

1.14.3. It shall be distinctly understood that it is entirely the responsibility of the contractor to make such arrangements as may be required from time to time to protect the men, machinery, materials and the work under progress and work for which the measurements were recorded and payment made, against damages either during working season or during the flood season the department accepts no liability, what-so-ever for any damage or loss of men, materials, machinery and work of hindrance caused to the progress of work except as provided in specific clause of General Conditions of Contract under contractor's risk and insurance.

1.14.4. The contractor should provide at his own cost adequate protection measures to the completed works at the end of working season or work in progress against the probable flood during monsoon till completion and handing over of entire work.

CHAPTER – II

2. GENERAL SPECIFICATION

The enclosed drawing in the bid document gives broad dimensions and outline of the works to be executed through this contract. These drawings may however be revised / modified from time to time and supplementary additional drawing may also be issued as per necessity. During the course of execution there may be changes in dimension, specifications and shape of components. The changes in the drawing can be done without any way deviating the terms of the contract and the contractor is to execute the work as per revised drawings and specifications at the same rate as agreed upon for the work awarded under the original contract. The contractor shall do no work without proper drawings. He shall check all drawings and specifications carefully and advise the Engineer-In-charge, if any error and omission are discovered where upon he Superintending Engineer will prepare revised additional drawings and specifications as may be required to suit the state of the work. Where the drawings are not consistent with the text of the specification, the text shall govern.

2.1. The rates quoted shall be for finished items of work as per description in schedule of quantities and according to drawings, specifications and conditions of the contract. Detailed construction drawings shall be furnished by the Department. Rates quoted shall be for items of works, specifications of which confirm to details furnished in this report and provisions in Bureau of Indian Standards and shall include all general and incidental charges which will not be paid separately. Such general and incidental charges are listed below for the convenience of the tenderers but are not exhaustive. Omission of any such items herein but required for delivering finished items of work, shall not be a plea that such items are not covered by the rates quoted.

2.1.1. Formation and maintenance of haul roads within the work site, (i) are to be done by the contractor at his own cost. (ii) Existing approaches and haul roads, if any, under the control of the barrage organization may be made use of, but improvement, if required, shall be at contractor's cost.

2.1.2. Labour & material required for construction of reference points, bench marks, pillars etc. for setting out the works shall be at contractor's cost.

2.1.3. The rate offered includes cost of all leads, lifts and scaffolding and gang-ways as and when required for the work. No additional payment in this regard will be entertained.

2.1.4. Construction of coffer dam, dewatering of any water that may accumulate in the working areas as required for carrying out the items under schedules of quantities. This shall include the initial dewatering of the pond formed after the formation of coffer dam and all seepage that may accumulate in the area before construction has to be carried out.

2.1.5. Removal of temporary protection arrangements for the reinforcements and instrument pipes left projecting from the unfinished constructed sections to be attended to in the next working season. The reinforcement etc. have to be thoroughly cleaned and straightened before these are embedded in concrete/masonry.

2.1.6. Providing protection arrangements as per drawing for the reinforcement rods and instrumentation pipes, cable etc., during flood season intervening any two working seasons.

2.1.7. Protection works for the piers during the flood season intervening any two working seasons. This is however, indicative of the actual protection works that will depend on the location and the point of protection and should be done to the satisfaction of the Engineer-in-charge. The responsibility for the safety of the structure rest entirely on the contractor and any damage that occur have to be made good by him at his cost.

2.1.8. Green cutting/high pressure water jetting /chipping off old concrete surface, over which fresh concrete is to be laid, so as to remove laitance and expose coarse aggregate.

2.1.9. Cleaning the areas that will be covered by concrete thoroughly with air and water jet just before laying concrete and applying slurry of cement mortar 1:2.

2.1.10. From work complete including cost of materials, labour, maintenance, erection and removal.

2.1.11. Providing blocks outs (for second stage embedded metal parts of gates) with reinforcement projecting into the block outs.

2.1.12. Fixing first stage embedded metal parts in the block outs.

2.1.13. Furnishing samples of welds to the department for testing cost of binding wire, tack welding wherever required and arrangement for movement of labourers for pouring concrete over the reinforcement such that the sag does not exceed 12 mm.

2.2. The sequence of construction to be adopted by the contractor shall have to be approved by the Chief Engineer. Normally sequence of construction shall be from a lower level to a higher level and from one end of the barrage to other or from both ends.

2.3. Cofferdam and its Maintenance.

The contractor has to make his own design for the coffer dam and furnish the same along with this tender. The cofferdam may be designed for 25years return flood for non monsoon flows. Any material required for the coffer dam shall be arranged by the contractor. The design of the coffer dam shall be such that its section is of erodible nature and should not form an obstruction to river flow during monsoon period. The design should receive the prior approval of the

Engineer-in-charge before being actually executed by the contractor. Forming the necessary coffer dam and its maintenance for the work contemplated in all the working seasons till the final completion date, shall be the responsibility of the contractor. However flash and untimely floods cannot be ruled out during the working season for which the coffer dam should be suitably constructed and maintained by the contractor at his own cost.

2.4. Equivalency of Standard and Codes.

Whenever reference is made in the Contract to specific standards and codes to be met by the goods and materials to be furnished, and work performed or tested, the provisions of the latest current edition or revision of the relevant standards and codes in effect shall apply, unless otherwise expressly stated in the Contract. Where such standards and codes are national, or relate to a particular country or region other authoritative standards which ensure an equal or higher quality than the standards and codes specified will be accepted subject to the Engineer's prior review and written approval. Differences between the standards specified and the proposed alternative standards must be fully described in writing by the Contractor and submitted to the Engineer at least 28 days prior to the date when the Contractor desires the Engineer's approval. In the event the Engineer determines that such proposed deviations do not ensure equal or higher quality, the Contractor shall comply with the standards specified in the document.

2.5 Quality Control

2.5.1. Before collecting materials required for execution of the respective items of work and laid down in the schedule of quantities and in the detailed specifications described hereafter in the subsequent sections, the contractor shall ensure that samples of materials proposed to be used are first approved by the Engineer-in-charge. When directed the samples of materials proposed to be used should be furnished to the Departmental Quality control laboratory for testing.

2.5.2. All such testing charges shall be borne by the contractor. The contractor will provide necessary assistance if required for collection of samples. The contractor is liable to pay for any test which is not included in the Agreement but required in the opinion of the Engineer-in -charge during execution of the work for which no additional payment will be made to the contractor.

2.5.3 On the basis of satisfactory test results confirming to technical specification, collection of materials shall be started from the quarry. The testing of materials shall be checked in the field laboratory by the Department as well as staff of Quality Control organisation. If the field test result is found unsatisfactory, the materials shall be rejected.

- 2.5.4 On receipt of notice from the Engineer-In-Charge and on observation of quality Control Division, Berhampur the contractor will rectify the defect in stipulated period at his own cost, If the defects are not rectified in the stipulated period, the Engineer-in-charge shall assess the cost, get the defect rectified and recover the same from the dues of the Contractor.
- 2.6.1 A quarry chart indicating possible sources of materials may be seen in the office of the **Superintending Engineer, Harabhangi Irrigation Division, Adava, Dist.- Gajapati**. The contractor must however satisfy himself that the materials as required as per specifications and quantity are available in those quarries. No extra payment will be made due to non-availability in those quarries. No extra payment will be made due to non-availability materials as per required specification and quantity in the quarries shown in the departmental quarry chart. The quarry chart is only an indication of source of materials and the department does not accept the responsibility if the materials are not available in full quantity and quality.
- 2.6.2 No claim for carriages of water whatsoever will be entertained .
- 2.6.3 Decision regarding usefulness of excavated materials rests fully on the Engineer-In-Charge.

CHAPTER- III

3.0. EARTH WORK

3.1. Scope of work: This section covers item

3.2. Description of the Item:

Refer item No.

of Bill of Quantity.

3.3. Excavation Foundation.

3.3.1. Excavation.

The item includes excavation of foundation for the work which include the R.C.C., Cutoff, raft, abutments, piers, wing walls, cement concrete blocks and loose stone aprons etc. The foundation levels to which the excavation will be made are indicated in the relevant drawings. If the excavation is required to be taken to levels other than those indicated in the drawings the payment on such excavation shall be governed by the same rates in which bidding has been done in the tender schedule. The item "Excavation" as herein used shall in general include excavation after the formation of cofferdam and dewatering of the area, transportation of the excavated material to the dumped area or as directed by the Engineer-in-charge throughout the period of working. During the stage of excavation where stone or concrete blocks are encountered requiring removal by chiseling or blasting, the same shall be done with precaution as specified. The area shall be first excavated up to 15cm. above the foundation level as shown in the drawing. The balance excavation has to be completed only in a few hours before placing concrete. Arrangements for placing concrete shall be made only after the area is inspected and approved by Engineer-in-charge.

3.3.2. Disposal of Materials

Before excavation is started, the deposition of spoil should be carefully planned. The excavated material shall be dumped sufficiently clear of the edges of excavation permitting ample space for installing and lifting of dewatering machines, stacking construction materials etc. or transported to coffer dam, afflux bunds, guide bunds, back filling of abutments or to stock pile areas. In forming stock piles, the useful materials shall be stocked in separate areas with reference to the nature of the materials. Excavated materials, if found suitable, should be utilized for filling behind abutments, and in the afflux bund and guide bund, for which no extra payment will be made. Steps should be taken to keep the materials; clean as subsequent cleaning will be difficult and imperfect. All other excavated materials shall be dumped in permanent spoil banks or other approved locations. Spoil

banks shall be located where they will not interfere with the natural flow of the river or will not obstruct any drainage arrangement.

3.3.3. Measurement.

Immediately prior to the beginning of the work, accurate cross sections of existing ground level at suitable intervals or closer where necessary and normal to the axis/alignment shall be taken over the area to be excavated. Final sections along the same line after the removal of each class of excavation and also on the completion of the excavation shall also be taken. Volumes will then be computed for materials excavated under the different classifications and will be paid for at the rates of respective items which also include conveyance of excavated materials including loading, unloading and stacking as directed by the Engineer-in-charge.

3.3.4. Dewatering

The Contractor has to make his own arrangement for dewatering from the working area at his own cost and the unit rates for each item of work quoted by the contractor shall include the cost of dewatering and river diversion and cofferdam.

3.4 Excavation in all kinds of Hard Rock & Disposal.

3.4.1. Normal methods of excavation will be by use of explosive i.e by blasting methods, however excavation by wedging, barring and chiseling and control blasting can be done as required at site as per direction of the Engineer-in-charge. The contractor's Item / percentage rates shall include all necessary operations such as ordinary methods of blasting, wedging, barring, chiseling and controlled blasting etc. including loading and transportation to the places away from the project site in low and areas in a systematic manner as directed by Engineer-in-charge. Normal methods of excavation will be by blasting with explosive, all operations, involving transportation, handling, storage, and use of explosives for the blasting shall be confirmed in accordance with the Indian explosives Act. The contractor shall engage licensed blasters for taking up the blasting operations in the work spot. The contractor shall take all necessary precautions for all accidents which may arise due to blasting. The contractor should have portable magazines near the work site for carrying out day to day blasting operations.

3.4.2. Line Drilling and Broaching

Excavation in rock shall be progressed by systematic line drilling and broaching or by chiseling in locations specified by the Engineer-in-charge.

3.4.3. Blasting

Blasting shall be permitted only when proper pre calculation are taken for the protection of persons, work and property & on receipt of permission from civil authorities of the district. Any damages done to the work or property by blasting shall be repaired immediately. Blasting may be done only to depth and extent approved by the Engineer- in-charge with explosives of approved quality and charge and in such locations are made no damage to the rock outside the prescribed limits of excavations. Explosives shall be stored in a safe place at a sufficient distance from the work and under special care of a watch & ward so that in case of accidents, no damage occurs to the other parts of works. All storing, handling, transport and use of explosives, detonators and the equipment there of shall be strictly in accordance with the Indian Explosives act and the explosives Rules-1940 and as amended from time to time.

The blasting where required shall be permitted only when proper precaution have been taken for the protection of persons and property in accordance with I.S. 40-81-1976 (Indian Standard specification for safety code for blasting and related drilling operations.) While carrying out excavation adequate precautions in accordance with I.S 3761-1966 (Indian standard Specification for Safety code for excavation work) shall be taken. Holes shall be drilled not exceeding two thirds of the depth of rock to be excavated from the elevation at which the hole is started. The holes shall not be larger than as necessary to permit easy passage of whole sticks of explosives to the bottom of the holes. As the excavation approaches its final limits, the depth of holes shall be reduced progressively. When ever in the opinion of the Engineer-in-charge, further blasting may injure the rock upon or against which concrete is to be placed, the use of the explosives shall be discontinued and the excavation shall be completed by wedging, barring, Chiseling, drilling or broaching or by other suitable methods. Care should be taken to remove all loose slabs before masonry/concrete is placed for the spillway. Rock bolting compared to excavation of rock may be useful at places in excavation of foundation. The engineer-in-charge will direct where to locate rock bolt and where to excavate by wedging barring. The final prepared foundation shall roughly present a saw tooth out line and shall have at least 50% horizontal or nearly horizontal area to give resistance against sliding or as per direction.

3.4.4. Blasting with Powder

Blasting operations shall be under charges of competent persons specifically for this purpose and be carried out during fixed hours of the day preferably during early hours midday. Lunch hour or at the close of the working day in the presence of competent persons. Prominent sign-board indicating the blasting timings should be put at a number of places. The Engineer shall see that the safety precaution are taken and observed. Red flags shall be prominently displayed and all the people except those who have actually to light the fuse must evacuate to a safe

distance from the blast not less than 150 meters as a rule. Sirens shall be sounded five minutes prior to the blast with waiting note and an all clear shall be given with a long blast at the end of the operation. These sirens should be kept at different locations so as to identify the danger zones. All fuses must be cut to the required before being inserted into the holes. The safety fuses of the charged holes are to be lighted in the presence of the superior who must see that the fuses of all holes charged have properly ignited. The number of blasts to be fired and the actual number of shots heard must be compared and the person responsible must satisfy himself by examination that all blasts have exploded before work people are permitted to approach the site. Withdrawal of a charge, which has not exploded, is not to be permitted under any circumstances, but the tamping and charge should be drilled at a distance of about 23cm. from the old hole and fired in the usual

way. The result shall be carefully examined by the all persons in charge of blasting and the operation continued until the original blast is exploded.

3.4.5. Blasting with Dynamite & other High Explosives:

Sub paras (a) of the Para 4.15.2 instruction for blasting with powder shall apply. The strength of special gelatin to be used in the excavation of foundation as per the percentage mentioned below.

60% Special gelatin for softer rock strata.

70% special gelatin medium hard rock strata

80% special gelatin for hard rock strata

Before holes must be such a size that the cartridges can easily be passed through, and the responsible man in charge of blasting (Supervisor) shall take particular note of these positions and check them again after holes are drilled. The supervisor himself must supervise preparation of all charges necessary for the

bore holes. Blasting plans shall be evolved after trial blasting at the site. The first few rounds blasted at the work site shall be considered as test/trial blasting to find the most economic and efficient drilling and firing pattern consistent with limiting the blast induced peak particle velocity (PPV) within permissible range. He shall adjust the drilling pattern, hole depth, number of holes, charge per hole and firing sequence including the types and number of delay of ensuring most favourable angle of breakage. The blasting plan, so evolved and approved by the Engineer-in-charge will restrict the development of crack zone beyond the drilled contour and limit the PPV's influencing the damage prone features/ structures range. Through tail blasting and vibration measurement, the value of variable shall be determined from the following equation.

$$V=K (Q^{1/2})^{17/D}$$

Where V=Peak particle velocity in mm/sec

Q=Cooperating charge in 1 kg.

D= Distance from the blasting zone in meters.

K=transmission factor constant which depends upon rock characteristics homogeneity of rock and presence of faults and cracks.

Broadly, a peak particle velocity range of 70-100 mm/sec shall be permissible in good rock excavation. The number of holes to be blasted in & around will be governed by the blasting plan evolved through trial blasting as explained above with the frame work of permissible PPV. If blasting is to be done in the civility and any risk phone feature of structures, the permissible PPV shall be reduced and Engineer-in-charge shall lay down the safe limits of PPV.

3.4.6. Explosives and Blasting

Explosives required for rock blasting are to be procured by the contractor at his own cost. It shall be the responsibilities of the contractor to store the explosive purchased by him in accordance with the rules of the explosive act and other rules framed by Government of India. Blasting materials such as gelatin, Detonators and fuse coils will have to be procured by the contractor & the contractors should make his own arrangements for their transport to work spot at his cost and their safe custody in a portable magazine, as per the rules in force and furnished the following details as per the format given below. Capacity License No. & Date Validity Period

The contractor shall acquaint himself with all the applicable laws and regulation concerning, storing, handling and the use of explosives. All such laws, regulations and rules as prevalent from time shall be binding upon the contractor.

The provision detailed in the specifications are supplementary the above laws, rules and regulations, and are also applicable except where they conflict with the above mentioned laws. Further the Engineer-in-charge may issue modification alternation and new instructions from time to time. The contractor shall comply with the same without these being made a cause for any claims. All these materials such as explosives, detonators, fuse coils tamping materials etc. that are proposed to be used in blasting operations shall have the required make and strength. The use of fuse with only on protective coat is prohibited. The fuse shall be sufficiently water resistant as to be unaffected when immersed in water for thirty minute. Rates of burning of the fuse shall be uniform and not less that 4 (four seconds per 35 millimeters of length with 10 percent (ten percent) tolerance on either side. The fuse known as instantaneous fuse shall not be used. Before use, the fuse shall be inspected and most damaged or broken ones discarded.

The rate of burning of all new types of fuse or when they have been in stock for long shall be checked before use. The detonators used shall be capable for giving an effective blasting of the explosive.

3.4.7. Personnel

Excavation by blasting shall be permitted only under the personal supervision of competent and licensed persons and trained workmen employed by the contractor at his cost. All supervisors and workmen in charge of makeup, handling, storage and blasting work shall be adequately insured by the contractor. The storage of explosives shall be in charge of very reliable person who may if necessary cause police enquiry being made as to his reliability, antecedents etc, The contractor shall have to produce security for the person in charge of the explosives, if and as required by the engineer-in-charge of the civil authorities of the District. The contractor shall make sure that his supervisor workmen are fully conversant with all the rules to be observed in storing, handling and use of explosives. It shall be assured that the supervisor in charge is thoroughly acquainted with the details of the handling and the blasting operations.

3.4.8. Storage of Explosives

The contractor shall build at his cost a magazine for storing the explosives and portable magazine for carrying the explosives to work spot from the magazine or one storage magazine to be built near the site of the work on which explosives are to be used. The site of the magazine, its capacity and design shall be subject to approval by the Engineer-in-charge and the Inspector of Explosives, Government of India before the construction is taken up as a rule the explosive should be stored in a clear dry well ventilated bullet proof and fire proof building on isolated site. The explosives, detonators and fuse coils shall each be separately stored. A careful and day to day account of the use of explosives shall be kept by the contractor in register in a manner prescribed by the Engineer-in-charge. The Engineer-in-charge may also pay surprise visit to the storage magazine. In case of any unaccountable storage of the explosives, or if the account is not found to have been maintained in a manner prescribed the contractor shall be liable to be penalized in which case he shall not be entitled to any compensation for the losses etc. The action taken under this cause shall be in addition to that which might be taken by the competent authorities or in the court of law. The magazine shall at all times be kept scrupulously clean. No unauthorized person shall at any time be admitted inside the magazine. A notice shall be hung near the storage prohibiting entrance of unauthorized persons.

The magazines on no account be opened during or on approach of a thunder storm and no person shall remain in the vicinity of the magazine during that period. Magazine shoes without nails shall at all time be kept in the magazine, and a wooden tub or cement trough about 300 millimeters high and 450 millimeters in the diameter filled with water shall be fixed near the door

of the magazine. Person entering the magazine, must put on the magazine shoes which shall be provided by the contractor for the purpose and be careful.

- i. Not to put their magazine shoes to touch ground outside the clean floor.
- ii. Not to allow the magazine shoes to touch ground outside the clean floor.
- iii. Not to allow any dirt or grit to fall on the clean floor.

Persons with barefoot shall before entering the magazine dip their feet in water and then step direct for tub over the barrier (if there be one) on the clean floor. A brush or broom shall be kept in the lobby of the magazine for the cleaning out the magazine on each occasion it is opened for the receipt, delivery or inspection of explosives, No matches or inflammable material shall be allowed in the magazine. Light shall be obtained from an electric storage battery lantern. No person having articles of steel or iron on him shall be allowed to enter the magazine. Oily cotton, rags waste and article liable to spontaneous ignition shall not be allowed inside the magazine. Workmen shall be examined before they enter the magazine to see that they have none of the prohibited articles on them. No tool or implements other than those of copper, brass, gun metal or wood shall be allowed inside the magazine. All tools shall be used with extreme gentleness and care. Boxes of explosive shall not be thrown down or dragged along the floor and shall be stacked on wooden trestles. Where there are white ants, the legs, of the trestles shall rest in shallow copper, lead or brass bowls containing water. Open boxes of dynamite shall never be exposed to

the direct rays of the sun. Empty box or loose packing materials shall not be kept inside the magazine. The magazine shall have lightning conductor, which should be got tested at least once a year. The contractor shall within 15 days comply with all the recommendation made by the officer testing the lightning conductor, failing which the Engineer-in-charge shall entitle to comply the same at the contractor's expense which shall not open to question or the Engineer-in-charge may consider any action that he may consider fit. The following shall be hung in the lobby of the magazine.

- i) A copy of rules both in English and Oriya.
- ii) A statement showing: the stock in the magazine at the particular time.
- iii) A certificate showing the last date of testing of the lightning conductor.
- iv) A notice that "Smoking is strictly prohibited"

The magazine shall be inspected at least twice a year by an officer representing the Engineer-in-charge who shall see that all the rules are strictly complied with. He shall notify all omissions etc. to the contractor who shall rectify the defects within a period of 15 days. (fifteen days) from

the date of receipt of the notice failing which the Engineer-in-charge may take whatever he considers suitable.

3.4.9. Transport and Strong of Explosives:

For the transport of the explosives and detonators between the store and site, closed and strong containers made of soft materials such as timber, zinc, copper, leather shall be used. Explosives and detonators shall be carried in separate boxes. For the conveyance of primer special containers shall be used. The boxes and containers used shall be kept closed. Explosives shall be stored and used chronologically to ensure the ones received earlier being use first. A make up house shall provided at each working place in which cartridge will be made up by component and licensed man as required for the work. The make up house shall be separated from other buildings. Only electric storage battery lamps will be used in this house. No smoking shall be allowed in the make up house or generally while dealing explosive. No child under 16 years of age & person who is in a state of introduction shall be employed on the loading & unloading or transport of explosive or be employed in or allowed to enter in premises where explosives are handled and/ or stored.

3.4.10. Disposal of Deteriorated Explosives.

All deteriorated explosive shall be disposed off in a approved manner. The quantity of the deteriorated explosives to be disposed off shall be intimated to the Engineer-in-charge prior to its disposal.

3.4.11. Preparation of Primers:

The primers shall not be prepared near open flames of fire. The work preparation of primers shall always be entrusted to the same personnel; Primers shall be used as early as possible after they are ready.

3.4.12. Charging of Holes

The work of charging of holes shall not commence before all the drilling work at the site is completed and the contractor's. Supervisor be satisfied himself to the effect by actual inspection. While charging open laps shall be kept away. For charging with powdered explosives, a naked flame shall not be allowed. Only wooden tamping rods, without any kind of metal on the rod shall be allowed. The tamping rods shall have cylindrical ends. Before hole must be of such size that the cartridge can easily pass down & they shall not however be too big. Only one cartridge shall be inserted at a time and gently pressed into hole with the tamping rods, the sad, clay other temping material used for the holes completely shall not be tampered too hard.

3.4.13. Blasting.

Blasting shall be carried out during fixed hours of the day which shall have the approval of the Engineer-in-charge. The hours once fixed shall not be altered without prior written approval of the Engineer-in-charge. The site blasting operations shall be prominently demarcated by red danger flag. The order of the fire shall be given only by the contractor's Supervisor in charge of the work and his order shall be given only after giving the warning signal three times, so as to be enable all the labourers, watchman, etc. to reach safe shelters. All the roads and foot paths leading to the blasting areas shall be watched. Road closing barriers should be provided to close the traffic on these roads at least 400m away when the firing is to take place. In special case suitable extra precaution shall be taken. The Engineer-in-charge may however permit blasting for under ground excavation, without restriction of fixed time provided that he is satisfied that proper precaution are taken to give sufficient warning to all concerned and that work of other

agencies on the site is not hampered. For lightening the fuse a lamp with strong flame such as carbide lamp shall be used. The contractor's supervisor shall watch the required time for the firing of the fused and shall see that all the workmen are under safe shelters in good time.

3.4.14. Electrical firing.

Only the contractor's Supervisor in charge shall possess key of the exploder and short firing accessories and he shall keep it away with himself. Special apparatus shall be used as a source of current for the blasting operations. Power line shall not be tapped for the purpose. The detonators shall be checked before use. For blast in series, only detonators of the same manufacturer of the same group of electrical resistance shall be used. Such electrical lines as could constitute danger for work of charging shall be removed from the site. The firing cables shall have a proper insulating cover so as to avoid short circuiting due to the contact with water metallic part of rock. The use of earth as a return line shall not be permitted. The firing cables shall be connected to source of current only when no body is in the area of blasting. Before firing, the circuit shall be checked by a suitable apparatus. After firing whether with or without an actual blast the contact between the firing cables and the source of the current shall be cut off before any one is allowed to leave the shelter. During storm changing with electrical detonators shall be suspended. The charges, already placed in the holes shall be blasted as quickly as possible but taking all the safety precautions, and giving necessary warning signals. If this is not possible the site shall be abandoned till the storm has passed.

3.4.15. Precaution after Blasting

After the blast the contractor Supervisor must carefully inspect the work and satisfy himself that all the charges have exploded. After the blast is taken place in underground works, workmen shall not be allowed to go to the place till all the toxic gases are evacuated from the face.

3.4.16. Misfires

If it suspected that part of the blast has failed to fire and delayed, sufficient time shall be allowed to elapse before entering the danger zone. When fuse and blasting caps are used a safe time should be allowed and then the contractor's Supervisor alone shall leave the shelter to see the misfire. None of the drillers are to work nearer this hole under one of the two following operations have been carried out by the supervisor. Either (i) the supervisor should very carefully extract the temping with wooden scraper or jet of water or compressed air using pipe of soft materials and withdraw the fuse with the primer and detonator attached after which a fresh prime and detonator with fuse should be placed in this hole and fired out (ii) the hole may be cleared of 300m of capping & the direction be ascertained by placing a stick in the hole. Another hole may be drilled at least 225mm. away and parallel to it. This hole should then e-charged and

fired. The balance of the cartridge and detonators found in the muck shall be removed. Before leaving this work the contractor's supervisor should inform the supervision of the relieving shift of any case of misfires and should point out the position with Red Cross denoting the same also stating what action if any he has taken in the matter. A register of misfires and their location and how they were dealt with shall be maintained by the contractor. The contractor's Supervisor should also at one report at the contractor's office all cases of misfires, the cause of the same and what steps were taken in connection there with. The name of the day and night shift supervisor of the contractor must be noted daily in the contractor's office if misfire has been found to be due to defective detonator or dynamite the whole quantity of box from which the defective article was taken must be returned to the contractor's office for inspection and shall be disposed off as per rules & regulation of the act. Blasting operation when considered necessary shall be restored to only with written permission of the Engineer-in-charge. Prior inspection shall be carried out for the safety & stability of the public and property. Blasting operation in the proximity of overhead power line, communication line utility lines or other structures shall not be carried on until the operator or the owner of both such lines have been notified and precautionary measures deemed necessary have been taken. Any damage to the

neighboring building properties, standing crops and life due to blasting shall be made good by the contractor at his cost.

3.4.17. General

The price included in the schedule for the work required by this section shall be all inclusive constituting full compensation for mobilizing, demobilizing and supplying all equipment, materials, labour, supervision and all incidental work except for any item specifically exempted there from and for which in addition specific payment item has been included in the schedule.

3.4.18. Common Excavation

Measurement for all works done should be on the level sections initial levels and final levels will be taken at every 3m square grid and the contractor shall accept such levels, either in the book or graph sheets, or in both as directed by the Engineer-in-charge. If the dumps the excavated materials in an irregular way or not confirming to the dumping specifications, the department will withhold 20% (of the rate) and the same can only be released after the work is completed up to the foundation grade. No allowance shall be made for over excavations beyond the specified minimum lines of excavations except where specifically authorized. No extra payment for any over breakage and subsequent repairs shall be payable and deemed to have been included in the applicable item of schedule of bid.

Payment of common excavation shall be made on the basis of the unit price entered for the particular item in the schedule.

3.4.19. Excavation of Soil and Disintegrated (D.I) Rock

Excavation of soil shall comprise of all kinds of soil such as vegetable or organic soil turf, sand, silt, loam, clay mud, peat, black cotton soil, loose or compact moorum, soft stiff/heavy/hard shale, stony earth mixed with gravel having 300mm maximum diameter in one direction. Excavation of D.I. shall comprise of soling of roads/paths, hard core, macadam surface, lean, concrete, stone masonry, brick work, soft conglomerate, lime stone, sand stone, laterite, hard conglomerate and types of D.I. rock, which does not require blasting and can be quarried or split with pick axe and crow bars. If however the contractor resorts to blasting in such strata and D.I. rocks for his convenience, no extra payment shall be made the materials shall not be classified in higher grade. Excavation for canal shall confirm to provisions of relevant I.S codes, Sides slopes are to be provided as per the approved drawings, specification and provision of I.S code.

3.4.20. Excavation of Medium Hard Rock

This shall include all solid rock in place of such hardness and texture that it can not be removed by pick axe and crowbars and only to be removed by means of appropriate blasting. All boulders or detached pieces of solid rocks having volume greater than 0.50 cum, can be

classified as Medium Hard Rock. The excavated rock and debris so obtained shall be carried and dumped/stacked separately with varying lead at places indicated by the Engineer. The excavated materials shall be the property of the Department. Payment for medium Hard Rock by means of appropriate blasting shall be made as per level section (Pre & finished). A closer interval for leveling may be adopted if considered necessary as per opinion of the Engineer-in-charge. Boulders having volume more than 0.5 cum shall be pre measured.

3.4.21. Over Excavation

The foundation excavation shall be made to exact designed section in all kinds of soil and D.I. rock. No over excavation will be allowed in such reaches. However, in Medium Hard Rock formation over excavation to the extent of 10 cm. depth on an average will be allowed and paid for in the respective item. In case of over excavation beyond 10 cm depth due to poor geological formation certified by the Superintending Engineer and approved by the Chief Engineer payments would be made for removal of such quantity only.

3.4.22. Rock Excavation

Measurement for payment of medium hard rock and sheet rock excavation in open cut as required by this section shall be made of the total volume of rock in cubic meters contained, within the minimum lines for such excavation shown on the drawings or as specifically directed. The profile of the original rock surface, prior to excavation shall be established by taking levels of 3M. square grid. The final levels on finished surface shall similarly be taken on a 3M square grid on concurrent points as that of initial grid. With these profiles, the quantities on rock excavation shall be worked out. In case hard rock boulders met during excavation for which blasting is restored to, the isis required to take up blasting & stack the blasted debris in closely packed stack as directed by the Engineer-in-charge and payment will be made for the solid quantity of rock calculated after deducting. No allowance shall be made for over excavation beyond the minimum lines the excavation except where specifically authorized. No extra payment for any over breakage and subsequent repairs shall be payable and deemed to have been included in the applicable item of the schedule of bid. If the contractor dumps the excavated rock in an irregular way or not confirming to the dumping specifications, the department will withhold 20% of the rate and the same can only be released after the contractor removes the materials to the proper place for dumping. Payment for rock excavation shall be made on the basis of the unit price entered for the particular item in the schedule.

3.4.23 Dewatering:

General:

Dewatering shall be carried out by the contractor at his own cost & as per approval of the Engineer in charge to enable excavation, mucking, inspection, final preparation of the surface, providing anchor bars, grouting, laying of concrete & masonry and allied constructional activities.

3.4.24. Dewatering by Electrical/Diesel Pumps

Electric/Diesel Pumps (as approved by the Engineer-in-charge) of requisite capacity shall be installed in order to handle seepage. In case of electric pumps circuits shall be isolated from any other electric installation and the switch gears and pumping equipment shall be maintained in satisfactory condition to avoid loss of energy. If diesel pumps are used, all costs of POL, running and maintenance shall be borne by the contractor deemed to have been included in the unit price of the particular item in the schedule of bid. Similarly the cost of electricity, running and maintenance of electric pumps, if used, shall be deemed to have been included in the unit price for the particulars item in the schedule of bid. No payment will be made separately for dewatering. All dewatering is to be done at the contractor's cost and the rates for all items should include the dewatering operation.

3.5. Anchor Bars in Rocks

Drilling Holes for Anchor Bars

Where ever shown in the drawings or as directed, holes shall be drilled into the rock to receive bars for anchoring concrete, masonry and ground mat to the rock. The dimension of the anchor bars and the location diameter and depth of anchor bar holes shall be as shown in the drawings or as directed. The diameter of the anchor bar holes shall be not less than 15 times the diameter or the greatest transverse dimension of the anchor bar specified for that holes.

3.5.1. Placing Anchor Bars and Grouting

Anchor bars should be cleaned thoroughly before being placed. The holes shall be cleaned thoroughly, kept flagged until placing the bars and shall be filled completely and compactly with grout or mortar mixed in the proportions and to the consistency specified by the Engineer-in-charge. All water shall be removed from the hole when the anchor grout is placed. The anchor bars shall be forced into place before the grout or mortar has taken its initial set and where practicable shall be vibrated sufficiently so that entire surface of the embedded portion of the bars is in intimate contact with the grout. Special care shall be taken to ensure against movement of the bars, which have been placed. Anchor bars shall be placed and grouted not

less than 6 days in advance of concrete/masonry operations to allow the grout to set Anchor bars found loose after setting shall be replaced by the expense of the contractor.

3.5.2. Measurement and Payment

The price entered in the schedule for this work required by this section shall be inclusive of mobilization, demobilization, cost of all materials, labour supervision and all incidental works including all leads, lifts, delifts, charges for loading, unloading, cost of materials, conveyance, taxes and all operation etc. complete.

3.6. Refilling with Sand in Foundation

The sand required for refilling the foundation of the structure bays founded on clay or the deep scour holes shall be free from clods of clay and other deleterious substances and laid in layers of 300mm with profuse watering. The materials excavated from the foundation of the adjoining area can be used for filling subject to its suitability and approval by the Engineer-in-charge.

3.7. Embankment (Afflux bund & Guide bund)

3.7.1. General.

Embankment shall be constructed to the lines and grade with earth fill having desired parameters of density, cohesion, permeability etc. so as to ensure the designed stability and performance of the whole embankment. The quality control organization of the Department will carryout requisite tests for the suitability of the construction material well in advance and the contractor shall ensure that only approved materials are brought to place of fill and used for construction of embankment.

3.7.2. Foundation preparation subsequent to stripping and excavation.

3.7.2.1 Soil Foundation: Soil foundation under the seat of embankment shall be scarified and loosened by means of a plough, ripper or other means to a depth of about 15 cm to 20 cm to the satisfaction of the Engineer-in-charge. Roots or other debris turned up during scarifying shall be removed from the entire foundation area for the fill. It shall then be moistened to slightly above the optimum moisture and compacted by required number of passes of the compaction equipment to the same percentage of compaction as that of embankment. The purpose of using higher moisture than optimum is to ensure forcing of the soil into any unseen soft zones just below the surface. The first few layers of fill for the embankment shall be of depth of 10 cm to 15 cm and shall be carefully placed, ensuring uniform compactions and a satisfactory intimate bond between the foundation soil and fill materials. Heavy rubber tyre rollers or vibratory rollers may be used for compaction because they will follow the irregular surface and not bridge over small low areas as other type of rolling equipment will do. Sheep foot rollers shall be used for

compaction of impervious soil and preferably vibratory type rollers shall be used for compaction of all other soil and rock. Separate payment shall not be made for preparation of foundation as above and it shall be deemed to have been included in the unit rate quoted for respective item of embankment.

3.7.2.2 Sand Foundation: Sand met within foundation shall be tested for its lateral relative density. In reaches where the relative density is less than 70% the foundation sand shall be compacted by any of the approved methods to obtain a minimum relative density of 70% until the foundation has been tested and the relative density found to exceed 70%, earth fill shall not be allowed to be placed. This is necessary to minimize the effect of any structural readjustment in a loose foundation.

3.8. Borrow area

3.8.1. GENERAL

All materials required for the construction of embankment and around the structures shall be obtained from borrow areas after stripping and duly approved by Engineer-in-charge in consultation with quality control unit of the department only if the materials available from excavation of foundation of the structure and ancillary works are found to be unsuitable for use in construction of the embankment. The contractor has to borrow earth at his own cost and responsibility. No Compensation whatsoever for acquiring land for borrow area and for change in limits and locations of the borrow areas and depth of cut for getting suitable earth shall be paid to the contractor. No excavation is allowed within a distance of ten times the height of embankment from the outer roe. Borrow pits shall be operated so as not to impair the usefulness or mar the appearance of any part of the work or any other property. The surfaces of wasted materials shall be left in a reasonable level and even condition.

3.8.2. PREPARATION OF BORROW AREAS

All areas required for borrowing earth for embankment shall be cleared of all tree stumps, root, bushes, rubbish and other objectionable materials. Adequate lighting arrangement should be provided by the contractor. Particular care shall be taken to exclude all organic matters from the materials to be placed in the embankment. All cleared organic materials shall be burnt to ashes or disposed off as directed. The cleared areas shall be maintained free of vegetable growth during the progress of the work. No payment shall be admissible for preparation of the borrow areas indicated above as this is deemed to have been included in unit bid price.

3.8.3. STRIPPING OF BORROW AREAS

Borrow areas shall be stripped of top soil, and any other objectionable materials to the required depth as approved by Engineer-in-charge. The work may be done manually or with suitable

machines. Stripping operations shall be limited only to designated borrow areas. Materials from stripping shall be disposed off in exhausted borrow areas or in the approved adjacent areas as directed. No extra payment shall be admissible for stripping the borrow areas as this is deemed to have been included in the unit bid price.

3.9. HAUL ROADS AND APPROACH ROADS

Construction and maintenance of approach roads and haulage roads will be the responsibility of the Contractor, as per the direction of Engineer-in-charge. The department will have full right of use to those roads for inspection purposes. Proper road sign as required have to be provided for safety. For haulage of earth, the contractor shall construct ramps and haulage of sufficient width along the shortest but most practical route and shall maintain and illuminate them in a satisfactory manner. Watering of the haul road shall be done by the contractor as often as necessary to prevent rising of dust, formation of cuts and consequent deterioration of the surface. Whenever service roads meant for public through fare traverse through or run close to the borrow area, the Contractor shall direct his excavation and haulage operation in such a manner as to ensure uninterrupted use of the service road and safety to the public. At the haul road and service road crossing the contractor shall install necessary check gates and road signs. No Extra payment for haul road is admissible as this is deemed to have been included in the unit bid price for earth work item of schedule of quantities being contingent to the man work.

3.10. Earth Fill Material.

3.10.1. HOMOGENEOUS EARTH FILL

Embankment shall be constructed to the top width and side slopes as shown on the drawings. Suitable excavated materials available from ground cutting, removal of ramps and excavation for structures shall be used for construction of banks. If suitable and adequate materials for constructing embankment is not available from excavations, the desired material shall be obtained from approved borrow areas after getting approval of the Engineer-in-charge. The planning for execution should be such that all the useful excavated materials are utilized in embankment prior to utilization of borrow earth from outside.(i) Only suitable materials under classification shall be excavated, loaded and conveyed to the point of placement in the embankment. Unsuitable materials if conveyed will be removed and disposed clear of the work site as directed by the Engineer-in-Charge at the cost of the Contractor. The maximum dimension of stones, pebbles and rock fragments etc. placed in the outside zone of the embankment shall not be more than 15 cm and the quantity of such stone shall not exceed 5%.(ii) Construction of embankment shall begin at the toe of the fill and in no case shall embankment be widened by material dumped from the top. The material shall be placed in the earth fill in the continuous horizontal layers not more than 15cm in thickness after being rolled as herein specified. The thickness of the layer shall be adjusted by the Engineer-in-charge, if

the contractor satisfies the department that the particular type of compactors used by him give the required density as specified in drawing by carrying out trial compaction and requisite tests. The thickness of horizontal layers after compaction shall not be more than 10 cm if compaction is performed by mechanical tampers and not more than 15 cm if compaction by sheep foot rollers. Initially the earth in the embankment fill will be laid in a greater width than the designed section. Adequate extra width of about 0.6 m on either side of the embankment shall be provided so that the earth fill up to lines of the finished slopes shall have the required compaction as per the drawing and specification. Such extra width shall be removed and utilized in the upper layers of embankment along with slope dressing for which no additional payment will be made as it is deemed to have been included in bid price for respective item. (iii) No fresh layer shall be laid the previous layer is properly watered and compacted as per the requirement. If in the opinion of the Engineer-in-Charge, the surface of the prepared foundation or the rolled surface of any layer of earth fill is too dry or smooth to bind properly with the layer of materials to be placed thereon. It shall be moistened or worked with harrow, scarifier or other suitable equipment in an approved manner to a sufficient depth to provide a satisfactory binding surface with the next succeeding layer of earth fill. If a layer is found to be too wet for proper compaction of the layer of earth fill materials to be placed there on, it shall be raked up and allowed to dry or be worked with harrow, scarifier or any other suitable equipment to reduce the moisture content to the required amount and then it shall be compacted before the next succeeding layer of earth fill materials is placed. (iv) The materials shall be deposited in row parallel to the axis and spread in the uniform layers and breaking clods maximum up to 5 cm. sizes. Loads shall be dumped and spaced so that the progress of spreading shall produce adequate blending resulting in uniform layers not exceeding 22.5 cm. The work of spreading and compaction shall be so adjusted as not to interfere with each other and in such a way that neither of the operations is held up because of non-completion of rolling and watering. The excavation and placing operations shall be such that the material when compacted shall be blended sufficiently to secure the best practicable degree of compaction, impermeability and stability. The surface of banking shall at all time of construction be maintained true to required cross section.

(v) During construction a small transverse slope from centre towards edges should be given to avoid pools of water forming due to rains. Embankment materials shall be placed only when the weather conditions are satisfactory to permit accurate control of the moisture content in the embankment materials. Before closing work on embankment, in any continuous reach prior to setting of monsoon, the top surface shall be graded and rolled with a smooth wheeled roller to facilitate run off. Prior to resuming work, the top surface shall be scarified and moistened or allowed to dry as necessary and approved by the Engineer-in-charge for resumption. The contractor shall provide suitable protection works to protect the slope from erosion due to rain

water. No payment whatsoever shall be made for providing such protection work and rectifying the monsoon damages.

3.10.3. MOISTURE CONTROL:

The water content of the earth fill material prior to and during compaction shall be distributed uniformly throughout each layer of materials and it shall be between +2% to (-)2% of the optimum moisture content. Moisture determination of soil as well as determination of needed moisture shall be carried out as per designations of Earth Manual (July'74 second reprint 1985) and IS 2720-1983. Flooding at borrow area for preconditioning of moisture is preferable and effect only correction for moisture in the embankment. As far as possible the moisture content of the material shall be conditioned prior to its delivery on the embankment. It is preferable to use sprinkler for moisturing earth fill over the embankment use of jet of water for moisturing should be avoided. In order to have proper control of moisture content in the earth fill, no earth work will be done during rainy days. No compensation will be made to the contractor due to held up of work for rain, fog and high moisture content in the working process.

3.11. Compaction

3.11.1. General

(i) Having decided on the filling materials to be used, standard compaction test shall be made on the materials proposed for embankment to indicate broadly which are the most suitable and to give a rough idea of the best type of equipment to be used and the moisture content at which compaction should be undertaken and also to determine the effects of soil moisture content, thickness of layer and number of passes. (ii) Having decided on the thickness of layer and range of moisture contents, test should be made with different type of equipments available and the required number of passes should also be determined.

(iii) In all this work, the state of compaction should be measured in terms of dry density. (iv) Density tests shall be made after rolling, standard proctor density test shall be carried out at regular intervals to account for variations in the borrow area materials as well as that in-situ excavated materials. Not less than three tests shall be carried out to indicate variations in the standard proctor density attained in the laboratory.

(v) Density test shall be conducted from time to time on site to ascertain whether the compactions attained as specified. For every 1500 cubic meters of compacted earth work, at least one field density test shall be taken. Minimum four density tests shall be taken per day irrespective of quantity of earthwork. In case the tests show that the specified densities are not attained, suitable measures shall be taken by contractor either by moisture correction or by entire removal and relaying of layer or by additional rolling so as to obtain the specified density

which shall be checked again by taking fresh tests at the same location. Each layer shall be tested after rolling for proper compaction and after that fresh layer over it will be allowed. Necessary unskilled labour required for carrying out such density tests shall be provided by the contractor. However testing charges shall be borne by the department. (vi) Contractor shall supply all materials, labour, machinery and equipment at his cost for the work. (vii) No extra payment shall be made for these operations as this shall be deemed to have been included the price bid in schedule of quantities for the respective items of work.

3.11.2. Rolling.

When each layer of materials has been prepared so as to have the proper moisture content uniformly distributed throughout the material it shall be compacted by passing the tamping roller. The exact number of passes for each layer to obtain specified density shall be designed by the field laboratory after necessary test. The layers shall be compacted in strips overlapping not less than 0.6m. Rolling shall commence at edges and progress towards center longitudinally. The rollers of loaded vehicles shall travel in a direction parallel to the axis of the embankment. Turns shall be made carefully to ensure uniform compaction. Rollers shall always be pulled. Density tests shall be made after rolling and dry density attained shall satisfy the specified compaction standards. Standard proctor density test shall be carried out at regular interval to account for variations in the borrow area materials as well as that in-situ excavated materials. The locations where compactions of the earth fill materials by means of the roller is impracticable or undesirable the earth fill in that locations shall be specially compacted by means of pneumatic tampers.

3.11.3. COMPACTION OF COHESIONLESS MATERIALS:

Where compaction of cohesion less free draining materials such as sand and gravel is required, the materials shall be deposited in horizontal layers and compacted to the relative density specified. The excavation and placing operations shall be such that the materials when compacted shall be blended sufficiently to secure the highest practicable unit weight and best stability. Water shall be added to the materials as may be required to obtain the specified density by method of compaction being used. The thickness of the horizontal layers after compaction shall not be more than 10 cm if compaction is performed by tampers, not more than 15cm. if by rollers. The relative density of compacted materials shall not be less than 85% as determined by laboratory test.

3.11.4. Dressing slopes

The outside slopes of the embankment shall be neatly dressed to lines and grade as shown in the drawing as the placing of fill progresses. Compaction shall extend over the full width of the embankment and material in slopes shall be compacted as for the rest of the bank. To ensure

proper compaction of the edges, the cross section of the fill during construction shall be kept suitably wider as directed by Engineer-in-charge and cross section shall be dressed to the designed requirement after compaction for which no extra payment shall be made as it is deemed to have been included in unit bid price for item of schedule of quantities. Material used to fill depression shall be of same type as used in the embankment and shall be thoroughly compacted and bonded to the original surface. Slopes shall be maintained till final completion and acceptance. Any material, that is lost by rains, weathering or other causes shall be replaced at the cost of the contractor till completion of the works and taking over by the Department.

3.11.5. Settlement Allowance:

In the earth fill embankment, settlement allowance of 2% will be provided. Accordingly extra height shall be provided but payment for design height will be made. The base width of the embankment will not be increased to maintain the design slopes indicated in the drawings for the additional height as settlement allowance, but the following procedure will be adopted. Settlement allowance will be calculated at various levels where the slope is to be changed and the elevations including settlement allowance will be derived, keeping the embankment widths at the designed levels unchanged. The edges of embankment at the increased elevations (including settlement) when joined with the point where the slope has changed earlier below, shall give the slope to be adopted for construction. If the embankment is raised in more than one season provision for settlement shall be made in the last season's construction as described above.

3.11.6. Measurement and Payment (Earth fill):

3.11.7. MEASUREMENT FOR PAYMENT.

(a) All works shall be measured by levels.

(b) For payments the level books, field book, the cross section sheets and calculation sheets shall be treated as adjuncts to the measurement books. (c) All linear measurements shall be in meters, correct to 0.01 meter, area worked out in square meter correct to 0.01 M² and volume worked out in cubic meters correct to 0.01 M³.

(d) The quantities between the levels taken after stripping and cross sectional levels taken after construction of consolidated embankments under OMC conditions with the available useful excavated soils within the designed section shall be worked out excluding riprap, rock toe and filters etc. It shall be clearly understood that construction of embankments to extra widths as specified above and extra height formed for settlement allowance as specified earlier will not be included for payment.

(e) The measurement for construction of consolidated embankments with the materials obtained from the borrow area shall be the difference between the net quantities of the final compacted embankment section under OMC and net quantities of compacted embankments constructed with the suitable materials from all excavations as specified above and in earlier paragraphs. Final measurements and levels shall be taken at the cross sections of the completed compacted bank design section after the slopes dressed to ensure that the work is completed as shown on the drawings plus settlement allowances. The measurements for computation of quantities shall not include the extra section provided for compaction of earth fill up to lines of finished slope and for settlement height.

3.11.8. RATE FOR PAYMENT:

The rate for embankment fill under the item provides all costs for labour, materials, tools and plants, machinery, token excavation, transportation and incidental operations required for carrying out and completing the item of work in accordance with the specification, drawing and as directed by Engineer-in-charge.

3.11.9. Fine Dressing and Turfing on the outside slopes.

The outside slope of the embankment as per line, grade and dimensions of the drawing shall be protected by turfing the entire slope including the berms. After the slope has been fine dressed to the line, it shall be roughened or packed evenly without any additional cost. The entire surface shall then be covered with a layer of dub grass sods consisting of blocks or strips of dense living grass growth as approved. The sods shall include a mat of root and earth at least 5 cm. thick. Sods containing an excess among of obnoxious growth shall be excluded. Sods shall be carefully handled in transportation and transplantation so that minimum amount of earth will be lost from the root mass. The strips of blocks of sods shall be laid on the slope in close contact and then tamped firmly in place so as to fill and close joint between the blocks. Interval of time between collecting and laying shall be kept to a practical minimum and sods shall not be permitted to dry out. Immediately after placing the sods slopes shall be periodically moistured and if necessary for a sufficient period to re-establish the plant growth. Sods shall be transplanted generally from July to November. Arrangement of suitable sods is the responsibility of the contractor. The contractor will maintained the earth fill at his own cost till the items of turfing is completed. The measurement is to be made on the covered area basis and item will be paid at the bid price for finished item after survival of the turf for reasonable period as determined by the Engineer-in-charge. The unit bid price shall be for the finished item including the collection transportation within all lead, all lifts and de-lifts, loading, unloading, surface preparation, transplantation, tamping, watering till survival of sods, all labour, materials, taxes, tools, equipments and all incidental operations necessary to complete the work as per specification and as per direction of Engineer-in-Charge.

3.12. Inspection and Tests

3.12.1. GENERAL

The Engineer-in-charge shall maintain and exercise a thorough check on the quality of fill materials delivered to the embankment and will arrange to obtain the data-in-situ properties of the materials after compaction for comparison with design assumption. To achieve these objectives, a programme of fill testing and inspection shall be planned to effect quality control.

3.12.2. SCOPE OF TESTING AND INSPECTION REQUIRED.

Field control of fill materials will require visual and laboratory checks. The checks on the effectiveness of placement and compaction procedures shall be made by field density test at prescribed intervals. The control shall be both of the method type and on an end result basis. Department might review the design if necessary on examination of density test result and the contractor shall have no claim arising out of such a review and consequent change, if any, in the design.

3.12.3. EMBANKMENT TEST SECTION.

Placement and compaction methods specified will have to be verified by test embankment section to be built prior to starting of fill operations or at an early stage of construction. Either the initial stage of construction itself could be made to serve the purpose of test embankments or test embankment sections can be established in borrow areas. The test sections referred herein shall be used to establish:

- a) Layer thickness of fill materials.
- b) Optimum Practicable moisture content.
- c) Number of passes of sheep foot roller or weight of laboratory rollers vis-à-vis number of passes for effective compaction.
- d) For pneumatic tyred compaction equipment, the test required will be such as to determine the most suitable loading, tyred pressures, moisture contents and number of coverage for compaction of the materials. Using the available data from borrow pits, investigations of the materials to be used in the test section, the optimum moisture content as determined by laboratory tests will be known and 3 percent less than this moisture content should be used in the first 3 or 4 layers rolled. After 3 or 4 layers have been placed at 3 percent less than the laboratory optimum moisture content, field density tests should be made throughout the section. These tests should be made for at least each 100 sq.meter of test section area, and should be

distributed over the area that they will depict the effects of different compacting conditions encountered during construction. For example, if the section is located near an abutment, certain parts of the area will receive more compaction from track travel than other, hence some tests should be made in the portion compacted early by the rollers and so restored. The next step is to compact another 3 or 4 layers at the moisture content slightly higher (1 percent or 2 percent) than the moisture content previously used, maintaining the same rolled thickness of layer and number of roller passes as in above. Field density tests are again made over the test section. If the resulting field dry densities (of material passing the No.4 sieve) show an increase with increase of moisture, then increase the moisture again by another 1 percent or 2 percent and repeat the test. If an increase in moisture results in a decrease in field density, then place the next layer slightly dry of the original moisture content used and repeat the test. This procedure is nothing more than developing on the embankment a moisture density relation or compaction curve for certain roller, thickness of layer and a given number of roller trips. If special studies during investigations have indicated that material being tested should be placed within certain moisture limits or if the moisture limits to be used have been specified, the procedure outlined above should include test at these moisture contents or at moisture contents.

3.12.4. BEFORE COMPACTION.

Materials delivered to the fill shall be visually examined and their properties estimated by way of inspection. i) Moisture content tests shall be carried out in the laboratory while placing the fill materials. ii) Moisture content shall be controlled by adding water or allowing the soil to dry according to laboratory tests. iii) It shall be ensured that the methods of dumping, spreading and moisture conditions are such as will, result in reducing segregation and/or variation of moisture content to minimum.

3.12.5. DURING COMPACTION

It is intended that the checks on operations during compaction shall verify :i) That the layer thickness of the materials is specified. ii) That the fill is compacted to required standard proctor density or relative density by the specified number of passes of specified machinery. iii) That no excessive rutting, weaving or a scaling of the fill occurs during compaction.

3.12.5. AFTER COMPACTION.

The condition of the fill after compaction shall be observed and recorded particularly with respect to cutting or weaving. However, the properties of materials after compaction shall be determined primarily by field density tests. Routine tests on samples taken from constructed embankments shall include, besides Density tests, Grain size distribution, Atterberg limits, Shear and consolidation characteristics.

3.12.6. FREQUENCY OF TESTING

a) It will be necessary to carry out sampling and test of materials before and after compaction at sufficient frequencies so that effective checks on the fill operations are maintained. The testing frequencies proposed should correspond to the frequencies as shown in Annexure-I. However, the actual frequencies should be adjusted to suit the nature and variability of materials placed and the rate of fill placement. b) Testing shall be performed at higher rates than those given in Annexure -I, during initial stages of placing in order to establish control and testing techniques. Also testing shall be conducted at higher rates in case of special problems such as materials variation, equipment performance and weather. c) In addition, these tests shall be made i) in area where the degree of compaction is doubtful. ii) in area where embankment operations are concentrated. iii) at the locations of all embedded instruments for record. d) Locations of likely insufficient compaction shall cover the following or any other area so determined by Engineer-in-charge. i) The junction between areas of mechanical tamping and rolled embankment along abutments or cutoff walls. ii) Areas where rollers turn during rolling operations. iii) Areas containing materials differing substantially from the average.

3.12.7. RECORDS AND REPORTS.

Records of borrow area materials and embankment placing operations shall be maintained in order to have a continuous check on the suitability and availability of fill materials and quality of the fill. Thus it will be possible to have complete description of materials in any portion of the embankments. A foundation register is to be maintained in approved format for passing of the foundation by competent authority. No fill material to be placed on any part of the foundation unless foundation is inspected, surveyed and approved in writing and cleared by flagging for daily work.

3.12.8. Protection

The contractor shall take all precautions necessary for the protection of the embankment work by diversion of stream, local surface drainage, rain water etc. if these are likely to damage the work. Any damage to earth work due to any reason what so ever shall be made good by the contractor at his cost till the work is certified as completed and taken over by the Department.

3.12.9. Applicable Standard.

Publication of Bureau of Indian Standards (BIS) Indian Standard

(i) IS: 1948-1970 Classification & Identification of soils for General Engineering purpose (First revision)

- (ii) IS: 1988-1982 Methods of load test on soils (Second revision)
- (iii) IS: 2131-1981 Methods for standard penetration test for soils (First revision).
- (iv) IS: 4332-1967 Method of sampling and preparation of established soils for testing (Part-I)
- (v) IS: 4558-1983 Code of practice for under-drainage of lined canals (First revision)
- (vi) IS: 4701-1982 Earth work on canals (First revision)
- (vii) IS: 5529-1969 Test in Over burden (Part-I)
- (viii) IS: 7894-1975 Code of practice for stability analysis of earth dams.
- (ix) IS: 8414-1977 Guidelines for design of under seepage control measures for earth and rock fill dams.
- (x) IS: 8419-1977 Filtration media – sand and gravel (Part-I)
- (xi) USBR Earth Manual by United State Bureau of Reclamation. Earth Manual.
- (xii) Quality control Irrigation & Power Dept., Govt. of Odisha. & Field instruction. Manual (1989)

ANNEXURE – I

(See Clause 3.5.10.7)

TESTING FREQUENCY

Material Volume or Time between Tests Remarks

before compaction After compaction

Gradation

Moisture content

Field Density

Permea-bility

Triaxial shear tests

Consoli-dation test

1 2 3 4 5 6 7 8

3.12.10. Back filling with selected materials in the back side of abutments, flank wall and the existing flood protection embankment.

3.13. General

a) The type of material used for back fill, and the manner of depositing the material shall be subject to approval by the Engineer-in-charge. As far as practicable, back fill material shall be obtained from the excavation for structures or from excavation of other ancillary works. Back filling shall be restricted until structure is completed. The back fill materials shall only be procured from the site other than excavated pit of the structure when the quality of excavated materials is found unsuitable or the quantity insufficient. The decision of Engineer-in-charge is binding regarding the disposal of excavated material in the dumping yard or to be utilized as back fill materials. The schedule of construction of components of civil works should be prepared such that the maximum amount of excavated material if found suitable should be utilized as back fill materials.

b) Back fill materials shall contain no stones large than 7.5 mm size.

c) The previous materials (sand) with profuse watering used for back filling in the back of abutment flank-wall shall be placed as shown on drawing or as directed by Engineer-in-Charge.

d) Back fill shall not be placed against retaining walls until the retaining wall is cured adequately and is strong enough to take lateral pressure of the back fill. e) The back fill material shall be placed carefully and spreaded in uniform layers not exceeding 15 cm. The back fill shall be brought up as uniformly as practicable on both sides of walls and all sides of structures to prevent unequal loading. The back fill material shall be placed at about the same elevation on both sides of the structure and difference in elevation shall not exceed 15cm at any time. Black cotton soil should never be used as back fill material. Tamping to be used for compaction of the back fill immediately adjoining the structure.

3.14. Measurement and Payment.

Measurement for payment for back filling around structures will be made according to the pay line given or the drawings and the back fill outside of those pay lines will be at the cost of the Contractor. The payment shall be made on cubic meter basis under relevant items of schedule of quantities.

CHAPTER – VI

STONE WORK

4.1.1 Riprap and Coarse Gravel Protection

A. General

The Contractor shall furnish and place riprap and coarse gravel protection to the prescribed outlines and thickness provided in the drawings for the protection of the canals and structures and elsewhere as required

B. Materials

The stone required for riprap shall be in accordance with clause 4.1 of I.S. 8237 -1976 Indian code of practice for protection of slopes for reservoir embankments. The stones for riprap shall be hard and durable and shall not crumble on long exposure to water and air. The gravel protection shall be reasonably well graded and shall conform to clauses 5.15.1.1, 5.1.2, 5.1.3 and 5.2 of I.S 8237- 1976. The thickness of the stone to be used in the riprap shall be in accordance with clauses 6.3, 6.4.1 of I.S. 8237-1976, Indian code of practice for protection of slopes for reservoir embankments.

The Contractor shall unless otherwise specifically stated in the contract be responsible for payment wherever payable of all import duties, tools, octroi duties, seignorages, quarry fees etc. on all materials and article that he may use.

(C) Placing :

The placing and laying of riprap with coarse gravel 'protection shall be, in accordance with clauses 6.1.6.2, 6.2.1 and 6.2.2 of I.S. 8237-1985 in case the rip rap hand placed riprap, and in accordance with clause 7.1, 7.2 of I.S. 8237-1976 in case the riprap is dumped riprap.

Minimum Thickness or Hand Placed Riprap

Expected Wave Height Meter	Minimum Thickness Cm
0 to 1.5	30
1.5 to 3.0	45
Larger than 3.0	60

Recommended Riprap Thickness and Gradation

Range of average Height meter	Minimum Average Rock size	Minimum Riprap Thickness cm
0 to 1.5	30	60
1.5 to 3.0	40	75
Above 3.0	70	100

(D) Measurement and Payment

Measurement and payment of riprap or. of coarse gravel protection shall be made to the outlines of the nominal thickness prescribed. Payment for riprap and coarse gravel protection shall be made at the applicable unit price per cubic meter bid therefore in the bill of quantities for riprap and coarse gravel protection which unit price shall include the cost of procuring or furnishing, hauling and placing the rock for riprap or gravel for coarse gravel protection including the rock Spalls and gravel to fill the voids in the revetment.

4.1.2. Forming Dry Rubble Rock Toe

(A) General

The dry rubble rock toe along with filters shall be formed to the lines and graded as shown in the drawing. The forming of dry rubble rock toe filter consists of

- i. Excavation of foundation trench 45cm. deep for laying filters and forming rock toe.
- ii. Laying sand filters
- iii. Laying graded metal filters and
- iv. Forming dry rubble rock toe.

(B) Materials

- i. The filter materials should be composed of layers of fine sand coarse sand hard rock aggregates of thickness specified in plans and in schedule.
- ii. The fine and coarse sand used shall be composed of clean sand, well graded, hard siliceous material, free from injurious amounts of dust lumps of clay, soft or flaky particles, shale, alkali, loam mica or other deleterious substance. If the same brought to the site is dirty it must be washed thoroughly cleaned with water so as to get rid of all soluble impurities. The sand shall be screened and the fine coarse stocked separately which materials shall confirm to the gradation specified hereunder.
- iii. The aggregate of 10 mm to 75 mm size rock fragments shall consist' of broken stone which are hard, dense and durable. The rock fragments shall be free of disintegrated and decomposed stone, soft flaky, salt, alkali, vegetable, matter and other deleterious' substance like clay, lumps etc. They should be washed clean and stacked separately as per the gradation defined hereafter.
- iv. Almost all the quantity of rock chips and spalls required for breaking the aggregate and which are obtained from the spoil of canal rock blasting will be available at site. It shall be incumbent upon the Contractor to first utilize these materials to the full and the recovery of cost of the material used from such spoils from canal excavation shall be fixed by the Engineer-in- Charge, which is binding on the Contractor.

- v. The gradation each filter layer shall meet the following requirement with respect to the materials in the adjacent filter layer. Each successive layer of material shall be composed of particles such that the 15% size (15% smaller than and 85% larger than the diameter) is more than 5 times that of 15% size of the layer above.
- vi. The requirement for grading of the filters shall be established by the field laboratory on the basis of mechanical analysis of the adjacent fill material. Mechanical analysis shall be performed on samples which have been compacted. The test is to be conducted by the Contractor at his cost in the presence of Department Engineers to be nominated by the Engineer-in-Charge.
- vii. The following gradation is however tentatively and roughly indicated for the Contractor's information.

FINE SAND

At least 15% particles should be less than 0.3mm to 0.5mm in diameter.

COURSE SAND

At least 15% particles should be less than 2.50mm to 3mm in diameter.

AGGREGATE

10mm to 75mm rock aggregate: At least 15% particles could be less than 20mm in size.
- viii. Representative samples of these filter materials should be submitted by the Contractor to the Engineer-in-Charge of the work so that the mechanical analysis of the same could be carried out in the field laboratory and its gradation got tested and declared as permissible. In the event of the samples not conforming with the required gradation, the Contractor shall take such steps and perform such operation as to result in obtaining the materials of the required gradation without claiming any extra consideration beyond his quoted rate.

(C) Rock Toe

- i. The rock fill at the down stream toe of the bank shall be constructed to the finished lines and grades shown in the drawings.
- ii. The rock fill shall be placed in layers not exceeding 0.30 meter thickness at the time. The large rock fragments shall be placed on the outer faces of rock toe and shall be closely and firmly set with hand with their broadest side down-wards and face normal to the finished slope. At least 25% of these stones on the outer faces, should be 300mm in depth in normal to the slope and to be well embedded in the mass and should be laid with breaking joints as far as possible, so as to secure a firm and stable rock mass. For the sloping surface away from the embankment interstices

between the adjacent stone on the slope shall be well filled with stones of the proper size. and tightly wedged by wooden mallets or crowbars to ensure firm packing to result in a neat and well packed surface true to the finished slope. For earth side slope the surface stones need not be thus wedged with smaller stones so as to allow free drainage of the embankment. Profiles of strings and pegs should be used to ensure that rock toe is done true, straight and to confirm neatly to the designed slopes throughout

- iii. Rock spalls and stones not less than 0.014 cum in volume shall then be dumped in the interior portion so as to claim a free draining. properly graded fill with the best practicable distribution of materials and prevent large unfilled spaces being left within the rock mass. The inclusion of rock spall in the mass to amount in excess of the required to fill the voids between the large stones shall be permissible. The stones used shall consist of sound dense and durable rocks and shall be reasonably well graded.

(D) Slope and Bed Filter to Rock Toe

- i. Slope and bed filter should be laid for the rock toe consisting of filter materials of specified thickness and types shown in the drawings.
- ii. The specification of the materials mentioned shall be the same as given in paragraph (B), above.
- iii. The thickness of the various types of filter materials shall be specified in the plans.

(E) Measurement and Payment

Measurement and payment for filters shall be in the units of cubic meter. The payment shall be made on the relevant unit price bid in bill of quantities and the unit price shall include cost of furnishing, hauling of the materials and labour involved in all the operations specified for formation of filters.

4.1.3. Rough Stone Dry Packing for Aprons and Revetments

- i. The bed or slopes to receive the packing shall first be provided as specified and passed by the Engineer-in-Charge. In case where the work. of preparation of bed and slopes such as cutting out high bund, filling in hollows, etc. or the digging of the well foundations is rather extensive, separate items should usually be provided for such subsidiary kinds of work in the schedule the agreement. But if the work involved in such subsidiary item is very little, no separate provision need made and in the absence of such provision the Contractor shall understand that his tender rate is inclusive of all such work without extra charge. If the backing is to be laid on made up ground which is objectionable it shall so far as possible, not to be laid till the

ground has completely settled if a backing of gravel, quarry rubbish or other material is to be given, it will be specified in a separate schedule item.

The size of the stone to be used for dry stone revetment should be 225 mm. and 300 mm thick or as specified.

- ii. The stone shall be perfectly sound, as regular in shape as Possible free from cracks and decay and with their lengths equal to the thickness of the required apron or revetments and each stone shall not be less in size than 0.05 cubic meter unless otherwise specified or ordered by the Engineer-in-Charge having required to the nature of the stone along quarried. The smaller size stones required for filling in interstice and wedging shall only be supplied to the actual requirements for the work as defined in clause (iv) below and shall not .be used in 2 or 3 layers as a substitute for the full thickness stone, specified in clause (iii) below. The stone shall be obtained from the quarry specified.
- iii. The stones shall be laid closely in position on the prepared bed and firmly set with their broadest end downwards. So that they may meet all round their bases and with the top of the stone, level with the finished surface of packing. The stones shall be laid breaking joints so far as possible in the direction of the flow of water. The stones are to be placed perpendicular to the finished surface i.e., perpendicular to the slope for revetments.
- iv. Interstices between adjacent stones shall be filled in with stones of the proper size, well driven in with crowbars to ensure tight packing and complete filling of all interstices. Such filling shall be carried on simultaneously with the placing in position of large stones and shall in no case be permitted to fall behind. The final wedging shall be done only after obtaining the orders of the Engineer-in-Charge. The final wedging shall be done with the largest size chip practicable, each chip being well driven home with a hammer so that no chip is possible of being picked up or removed by hand.
- v. Profiles of strings and pegs are to be put up to ensure that the pitching is done true, straight and to the proper slope throughout and revetments are in all cases to be built up from the foot of the bund to be reverted. Care is necessary that a strong toe wall or other protection is always given to the revetment which protective measures shall be shown on the plans.
- vi. On completion the surfaces presented by the apron or revetment shall be even throughout free from irregularities to the required length. breadth and slope as specified or shown on the plans.

Measurement and Payment

Measurement and payment for rough stone dry packing for apron and revetment will be in the units cubic meters. The payment will be made on the relevant unit price bid in bill of quantities and the unit price shall include cost of furnishing, hauling of all materials and labour involved in all the operation specified for rough stone dry packing.

STONE PITCHING.

4.2. General

Stone protection work for loose apron of the barrage bays beyond concrete cubes both in upstream and downstream and also below the cubes of upstream of barrage are to be provided as per relevant drawings. Rough stone pitching has to be provided on the river side slope of the afflux and guide bunds. The launching apron for these bunds in continuation of the revetment to abutment shall be constructed with random rubbles.

4.3. Material for Stone pitching.

7.3.1. The pitching material shall consist of the most durable rock fragments of approved quality selected for the purpose. Stones shall be procured from the approved quarries, and if required shall be subjected to inspection and approval by the Engineer-in-charge. The quality of individual stone shall be dense, sound and free from conglomerate, bands and other defects that would tend to increase their susceptibility to destruction by water and weathering action. Stones having thickness less than 50% of their maximum dimension shall not be used for pitching.

4.3.2. Size of Stone

Stone shall be of minimum 0.003cum (30 cm size & above size) in size. At least 15% of stones to be used for pitching shall have depth equal to the thickness of pitching. All stones to be used for apron shall have a minimum depth of 22.5 cm. No stones shall have any dimensions less than 20 cm. For construction of launching apron hard granite stone of size 0.30 m and above of approved quality are to be used.

4.4. Slope Cutting

The compacted embankment, the slope of which is to be protected with stone pitching, shall be trimmed to the lines and slopes as prescribed on the drawings or as directed by the Engineer-in-charge from time to time. The earth obtained from this

trimming shall be laid on top of the embankment if required or as directed by the Engineer-in-Charge.

4.5 Thickness of pitching

a) Pitching shall be hand placed on the water side slope of the embankment. The thickness of pitching shall be as indicated on the drawings. The thickness shall be measured normal to the slope of the embankment. b) Launching apron shall be hand placed in horizontal layers and its thickness shall be as indicated on the drawings.

4.6 Method of Placement.

a) Before laying the pitching or launching apron on level ground or on sides of the slope of afflux or guide bunds, the receiving surface shall be trimmed to the required slopes and profiles put by means of lines and pegs at regular intervals. Depressions shall be filled up and thoroughly compacted. Pitching on inverted filter, if any shall be started from the end and built in courses upwards. Stones shall be placed by derrick or by hand and so placed that the largest dimensions are perpendicular to the face of the slope. The large stones shall be placed in the bottom course and for use as headers for subsequent courses. b) All interests between adjacent stones shall be filled with spalls if proper sizes and wedged in with hammer to ensure tight packing.

4.7 Measurement and payment

Measurement for payment will be made on the basis of cubic meter of the finished works for the respective items as mentioned earlier after deduction of minimum 1/6th towards void. The unit rate is inclusive of trimming the earth to required profile, slopes and grade and/or preparing level strips at suitable interval as directed to have uniform base, cost, conveyance, royalty and other taxes of materials, supply of equipmentslabour etc. complete as per direction of Engineer-in-charge.

STONE CRATES.

4.8 Gabion structure of size (2x0.5x1)m with Mechanically Woven Double TwistedHexagonal shaped wire mesh Gabion Boxes as per IS 16014:2013, MoRT&H's 5threvision clause 2500, of required size, mesh type 10x12(D=100mm with tolerance of $\pm 2\%$), Zinc+Polymer coated, Mesh wire Diameter 2.7/3.7 mm (ID/OD), mechanicallyedged/ selvedged with partitions at every 1m interval and shall have minimum 10numbers of openings per meter of mesh perpendicular to twist, tying with lacing wireof diameter 2.2/3.2mm (ID/OD), supplied @3% by weight of Gabion boxes, filledwith stones with least dimension of 200 mm.

CHAPTER – IX

OTHER ITEMS

WEEP HOLES:-

7.1 Item No.10

Providing weep holes and placing in position 10cm dia Asbestos Cement pipes with non- corroding Jalli as per design and drawings.

7.1.1 General:

- a) Weep holes of the size as shown on the drawings shall be provided and they shall extend through the full width of the masonry with a slope of about 1 vertical to 20 horizontal towards the draining face to drain moisture from the backfilling, the spacing of holes shall be as per the drawings in either direction staggered. The sides and bottom of weep holes in the interior shall be made up in the stones/concrete having fairly plain surface as channel so formed slabbed over with stones/concrete lintels not less than 150mm and each side, including centering and shuttering. In stone masonry, generally the height of weep holes shall be the same as the height of the course in which they are formed. Filters behind weep holes with jally shall be provided to the dimensions and grades as shown on the drawings with inverted backing of approved quality filter materials in back filling side.
- b) In case, the length of the pipe falls short of the standard length of the pipe, it shall be joined with necessary collars in cement mortar 1:3 or as per the instruction of the Engineer to form continuous hole in the body of wall. Defective pipes or defective work shall not be measured and paid. These shall be removed and replaced by the Contractor. The interior of all pipes shall be free from sand, mortar or dirt and other foreign matter. Care shall be taken to prevent entrance of any foreign matter into the pipes during progress of work.

Superintending Engineer
Harabhangal Irrigation Division, Adava

Additional Chief Engineer
Vansadhara Nagabali Basin, Paralakhemundi

**Drawings can be seen in the office of the
*Superintending Engineer, Harabhangi Irrigation Division,
Adava, Dist: Gajapati.***

**DURING THE OFFICE HOURS AND ON WORKING DAYS FROM
11 A.M ON 10.09.2026 to 5 P.M ON 22.09.2026**