

GOVERNMENT OF ODISHA, CULTURE DEPARTMENT
NAME OF THE WORK: TENDER FOR FIRE FIGHTING AND A.F.D. SYSTEM AT
RABINDRA MANDAP, BHUBNAESWAR

ESTIMATED COST: - 14, 17,510.00

BID IDENTIFICATION NO: -R.M.29 / 2013-14

OFFICE OF THE DIRECTOR, CULTURE, ODISHA, BHUBANESWAR.

I N D E X

01. TENDER CALL NOTICE
02. CONTRACT DATA
03. GENERAL CONDITION
04. TECHNICAL SPECIFICATION
05. ITEM OF WORK
06. SCHEDULE OF ITEMS
07. FORM OF BID / TENDER
08. PREAMBLE TO THE SCHEDULE OF QUANTITIES
09. SPECIAL NOTE
10. FORMS AND FORMATS
- A) FORM OF SECURITY DEPOSIT
- B) FORM OF PERFORMANCE GUARANTEE
- C) AGREEMENT FORMAT
11. GENERAL RULES AND DIRECTION FOR THE GUIDANCE OF CONTRACTORS
12. CONDITION OF CONTRACT
13. SPECIAL CONDITIONS OF FORMING A PART OF THIS CONTRACT
14. SPECIAL TERMS & CONDITIONS FOR SAFETY MEASURES

2. RABINDRA MANDAP, BHUBANESWAR

TENDER CALL NOTICE

Bid Identification No.

1279

/ Bhubaneswar, Dated: 15.12.2014

1. The Director, Culture Odisha, Bhubaneswar invites sealed tenders in Double Cover System from firms having sufficient experience in supply, installation & commissioning of Fire Fighting (Fire Hydrants Wet Riser System along with Automatic Fire Alarm & Detection System for high rise building for the work as detailed below. The proof of registration from the appropriate authority shall be enclosed along with the bid. The scope of the work includes Supply, Installation, Testing, Commissioning and obtaining No Objection Certificate(NOC) from competent Authority complete fire fighting system for Rabindra Mandap Bhubaneswar .

Sl. No

Name of work Estimated cost **Rs.14,17,510.00**

EMD Cost of Bid document Rs. 14,175.00 in shape of DD in favour of The Deputy Director &OIC, R.M../Caretaker. R.M.

1.Period of completion= **45 days**

(Supply, Installation, Testing and Commissioning complete fire fighting system of Auditorium/ office etc. of Rabindra Mandap, Bhubaneswar.

Rs. Lakhs

Rs including 4% VAT) 2(Two) calendar months)

2. The tender documents can be downloaded from the web site of culture Deptt. www.ditrectorof culture @ g mail. com

3. The cost of tender document (Non Refundable) as mentioned above must be submitted in shape of Demand Draft drawn in favour of "**Deputy Director & OIC, R.M./Caretaker, R.M., Payable at Bhubaneswar.**

4. The bidder should submit the 'Technical Bid' and 'Financial Bid' in two separate sealed envelope and both the envelope be sent in a single sealed envelope to reach the undersigned on or before the due date.

5. The bidder should have executed work of similar nature of value not less than **Rs. 10,00,000/- (Rupees Ten Lakhs)** in a single in public sector.


6. Bids shall be received through registered post/speed post only on or before **15.00 hours on 02.2014** the undersigned will not be held responsible for any kind of postal delay

7. EMD in shape of Demand Draft drawn in favour of "**Deputy Director & OIC, R.M./Caretaker, R.M., Payable at Bhubaneswar. payable at Bhubaneswar,** Self attested copies of Valid license/Registration, Experience Certificate, Clearance Certificate on VAT-612, PAN, Valid Certificate and other relevant documents as specified in the Bid document is to be enclosed along-with the Technical Bid. Non receipt of EMD, cost of bid document & documents as stated above on due date will lead to rejection of the bid.

8. Technical and commercial Bids will be opened at **16.00 Hours on 25.02.2014** in the office of the **DIRECTOR, CULTURE, Sanskruti Bhawan, Bhubaneswar** in the presence of bidders who wish to attend. The financial bid of the qualified bidder as per the technical evaluation will be opened on a date to be notified latter. If the office happens to be closed on the stipulated date of opening of Bids as specified, the bids will be opened on the next working day.

9. Other details can be seen in the bidding documents.

10. The authority reserves right to cancel any or all bids without assigning any reason thereof.


Director, Culture & Additional Secy.

2 CONTRACT DATA

SL. NO

DESCRIPTION DETAILS GENERAL INFORMATION

1 Name of the work Supply, Installation ,Testing and Commissioning complete Fire Fighting System of Rabindra Mandap, Bhubaneswar

2 Employer **Director & Additional Secy., Culture, Bhubaneswar.**

3 Employer's Representative DEPUTY Director, Culture, Bhubaneswar

4 Estimated cost Rs. 14, 17510.00

BID INFORMATION

5 Intended completion period/Time=45 days

period assigned for Completion Two Calendar Months.

6 Last Date & time of submission
of Bid **15.00 Hours of 25.02.2014 in the Office of Director&Additional Secy. to Govt.**
Sanskriti Bhawan, Bhubaneswar

7 Cost of Bid document Rs. 500/- (Rupees Five hundred)only
only (Non refundable shape of demand draft drawn on any Nationalized Bank in favour of
Director, Culture ,payable at Bhubaneswar

8 EMD Rs. 14, 17510.0 (Rupees Fourteen Thousand One Hundred Seventy five) only in
shape of Demand Draft/Bankers Cheque payable at
Bhubaneswar from any Nationalized Bank in favour of **Deputy Director & OIC, R.M./Caretaker**

9 Bid validity period 120 days

10 Currency of payment for
contract

Indian Rupee

11 Language of contract English

3 GENERAL CONDITION

1. Validity of offer: The tender submitted by the tenderer shall remain valid for acceptance for a period of
120 days (One hundred twenty) days from the date of opening of tender.

2. Scope of Supply: Supply of Cement and Steel shall be the responsibility of the contractor and the same
will be used in the construction after getting the test certificate and approval by The Deputy Director,
Culture/Deputy Fire officer. However on request, the same may be supplied to the contractor at the
prevailing issue rate, if available. The civil construction i.e. **PUMP HOUSE by PWD (R&B) authorities**

3. Measurement of reinforcement steel

: Measurement of reinforcement steel will be done as per ISI standard weight. Nothing extra will be paid for
rolling margin

4. Testing All cost of mandatory testing of bricks, chips, sand, concrete cubes, metals compaction, Moorum
compaction WMM compaction, BM & SDBC testing and other construction materials etc. will be borne by
the Contractor.

5. Agreement On acceptance of tender, the successful tenderer will have to execute agreement with latest
addition and alternation made till the date of opening of the tender paper in non-judicial stamp paper of Rs.
(Rupees) only and six cartridge papers, which is to be
given by the tenderer to the Deputy Director, Culture.

6. Construction water & power The Contractor shall have to arrange water and power him so as to execute
the work as per time schedule. Nothing extra will be paid on this account.

7. Approach to site The Contractor has to make his own arrangement for approach road to the work site.

8. Consumption of cement

The consumption of cement will be calculated as per Government of Orissa Analysis of Rate.

9. Site store The Contractor has to make his own arrangement for keeping cement in his store. Watch and ward is to be maintained by the Contractor.

10 Daily material consumption record

The Engineer-in-charge or his representative reserves the right to check the store at any time. The Contractor has to maintain a proper stock book showing daily consumption and balance etc.

Total ten numbers)

5 SPECIAL CONDITIONS

1. The unit shall be service once in a three month
2. The contract will be valid for the period of one year after defect liability period of one year. This contract may be terminated giving one month notice if services are not found satisfactory. No extra payment whatsoever on account of natural calamities or otherwise will be made to the contractor except the rates accepted and it shall be the contractors responsibility to maintain trouble free service during the contract period.
The rates include early servicing and maintenance of Fire Fighting System
3. In case of service is not done / defect not attended within requisite period necessary recover from the contract money will be made as deemed fit.
4. Arranging demonstration at least once in every six months.
5. The Contractor is to arrange water for the work at his own cost. The Contractor will lay the pipeline work required for the construction purpose at his own cost. No delay in construction is permissible on the ground of paucity of water. If the water is availed from the Corporation source by the Contractor, water charges will be levied as per prevailing rate and the amount will be recovered from the his bill. Service roads are to be constructed by Contractor at his own cost. Electricity will be provided by the Culture Deptt. subject to deduction of **0.2% of the contract value.**
- 7 No time extension will be granted on the ground of scarcity of water, communication, material and machinery etc.
8. The responsibility to locate Govt. approved quarry and burrow area lies with the Contractor.
9. Wherever levels are to be taken it will be the responsibility of Contractor to get the same done through concerned Deputy Fire Officer/Junior Engineer/ and checked by the Officer in Charge, R.M. /Deputy Director, Culture.
10. The Contractor will submit a detailed programme of completion of work with methodology for execution of each item of work at the time of execution of agreement.
11. All machineries will be arranged by the Contractor at his own cost in proper time.
12. The Contractor shall abide by the relevant Act like Minimum wages, Contractors all risk policy inclusive of third party liability and workman's compensation policy as per mutual agreement. Rules and Regulations in force of the state of Odisha from time to time for the labour employed in construction work. The contractor shall be fully and solely responsible for any compensation/ fine that may be imposed for violation of the said Rules/Regulations/Act.
13. For any bad quality of work the amount of award given by any consumer court/ judicial court will be recovered from the executing Contractor.
14. Where the agreement rates are more than 25% of the estimated rate, no extra quantity beyond the agreement quantity should be executed without the prior written approval of competent authority of Culture Department.
15. Additional performance security shall be deposited by the successful bidder when the bid amount is seriously unbalanced i.e. less than the estimated cost by more than 10%. In such an event the successful of the bidder will deposit the additional performance security to the amount differential cost of the bid amount and 5% of the estimated cost in shape of Bank draft or Bank Guarantee of any nationalized Bank.
16. For any additional quantities up to 25% on any item, the Contractor will be paid at the approved tender rate.

6 GENERAL CONDITIONS

1. Validity of Offer: The tender submitted by the tenderer shall remain valid for acceptance for a period of 120 days (One hundred twenty) days from the date of opening of tender.
2. Scope of Supply: Cables MS pipe ,detector, and other material supply by the contractor shall be the responsibility of the contractor and the same will be used in the construction after getting the test certificate and approval by the Deputy Fire Officer/ Deputy Director, Culture. However on request, the same may be supplied to the contractor at the prevailing issue rate, if available.
3. Measurement of reinforcement steel/pipe, cables etc. will be done as per ISI standard weight. Nothing extra will be paid for rolling margin
4. Testing All cost of mandatory testing of steel/pipe, cables etc. will be borne by the Contractor.
5. Agreement On acceptance of tender, the successful tenderer will have to execute agreement with latest addition and alternation made till the date of opening of the tender paper in non-judicial stamp paper of Rs.100.00 (Rupees one hundred) only and six cartridge papers, which is to be given by the tenderer to the Deputy Director, Culture. so as to execute the work as per time schedule. Nothing extra will be paid on this account.
6. Construction water & power. The Contractor shall have to arrange water and electricity against 0.2% of the gross value of work done
7. Approach to site, the Contractor has to make his own arrangement for approach road to the work site.
8. Consumption of cement the consumption of cement will be calculated as per Government of Odisha Analysis of Rate.
9. Site store The Contractor has to make his own arrangement for keeping cement in his store. Watch and ward is to be maintained by the Contractor.
- 10 Daily material consumption records. The Engineer-in-charge or his representative reserves the right to check the store at any time. The Contractor has to maintain a proper stock book showing daily consumption and balance etc. (Total ten numbers)
10. Additional performance security shall be deposited by the successful bidder when the bid amount is seriously unbalanced i.e. less than the estimated cost by more than 10%. In such an event the successful bidder will deposit the additional performance security to the amount of the differential cost of the bid amount and 90% of the estimated cost in shape of Bank draft or Bank Guarantee of any nationalized Bank
11. For any additional quantities up to 25% on any item, the Contractor will be paid at the approved Tender rate.

8 TECHNICAL SPECIFICATION OF CIVIL PORTION OF WORK

Materials of following specification are to be used in the work. The tenderer are expected to posses and be well conversant with the following I.S.I Standard and Code Practice.

- 1) Cement : IS: 269/1989 & 455/1989(However the grade of cement to be selected by the Engineer-in-charge of work and sample cube test before commencement of work in each batch.)
- 2) Steel : I.S: 432/1982 (Part-1&2) and 1786/1985
- 3) Vibrator : I.S: 7246/1974
- 4) Aggregate : I.S: 383/1970 - IS: 515/1959
- 5) Water for mixing & curing : Shall be clean, free from injurious amount of oil, salt, acid, vegetable materials and other substances harmful to concrete
Conforming to IS: 456/2000 and IS: 3023/1965
- 6) Sand/ fine aggregate: IS : 2116/1980
- 7) Binding Wire : IS: 280/1978 (galvanized minimum 1mm.)
- 8) Rain Water Pipe : IS: 2527/1984
- 9) Construction Joint : IS: 3414/1968
- 10) Steel Window Frame : IS: 1038/1983
- 11) Steel Door Frame : IS: 4351/ 1976

12) Fitting and fixtures for joinery works

: Conforming to IS: 7452/82 strictly conform to IS specification and as per direction of Engineer -in-charge.

NOTE :

For road work (approach road) specification as per road & bridges (latest edition) published by I.R.C. and MOS&T shall be followed. In case of any doubt and absence of provision regarding specification I.S. shall be referred. (Indian Standard). The latest version of the BIS code shall be followed.

9. BIS CODE REFERENCE

- 1) Concrete shall be with conformity to IS: 456/2000.
 - 2) Foundation shall be with conformity to IS: 1080/1995.
 - 3) Stone masonry (R.R.) shall be with conformity to IS: 1597/1992 (Part-I)
 - 4) Brick masonry shall be with conformity to IS: 2212/1991.
 - 5) Cement plastering shall be with conformity to IS: 1661/1972
 - 6) Mortar shall be with conformity to IS:2250/1981.
 - 7) White washing and colour washing shall be with conformity to IS: 6278/1971.
 - 8) Cement Concrete Flooring shall be with conformity to IS: 2571/1970.
 - 9) Ant termite treatment shall be with conformity to IS: 6313/1981 (Part - I & II).
 - 10) Painting to all surfaces shall be with conformity to IS: 2395/1994 (Part - I & II).
 - 11) D.P.C. shall be with conformity to IS:3067/1988.
 - 12) Tar felt treatment shall be with conformity to IS: 1346/1991.
 - 13) Mosaic flooring shall be with conformity to IS:2114/1984.
 - 14) Steel painting shall be with conformity to IS:1477/1971 (Part - I & II).
- Note: The latest version of the above BIS codes shall be followed.**

at his request on completion and before issue of final certificate or termination of the Contract.

- c) All drawings, bill of quantities and specifications and copies thereof furnished by the
 - d) All materials and workmanship shall be of the respect kinds described in the specification, BOQ contract and in accordance with the instruction of the Engineer-in-charge/Consultant. The contractor must satisfy himself about the same while furnishing samples for approval of the Engineer-in-charge/ Consultant, before incorporation in the works.
 - e) The Engineer-in-charge/ Consultant may from time to time cause at his discretion such tests on samples of materials or workmanship of all/any materials and work as he may consider necessary at places of manufacture, fabrication, on the site or at such other places. The expenditure incurred for all such tests shall be borne by the Contractor.
 - f) All approved samples are to be preserved by the Contractor in a regular manner in the site office for inspection and verification of the Engineer-in-charge/Consultant or his representative from time to time.
3. Alteration, Addition & Omissions: The Engineer-in-charge/ Consultant shall make any variation of the form, quality or quantity of the works or any part thereof that may in his opinion be necessary and for that purpose or if for any, other reason it shall, in his opinion be desirable, he shall have power to order the Contractor to do so and the Contractor shall do any or all of following:
- a) Increase or decrease the quantity of any work included in the contract.
 - b) Omit any such work;
 - c) Change the levels, lines, position and dimensions of any part of the works and;
 - d) Execute additional works of any kind necessary for the completion of the work.
- No such variation shall in any way vitiate or invalidate the contract, but the value of all such variations shall be taken into account and shall be added to or deducted from the contract sum accordingly, but no such variation shall be made by the Contractor without prior written instruction from the Engineer-in-charge or Consultant.

The schedule of quantities/ rates shall be deemed to have been prepared and included in accordance with the method of measurement of work set out and as per the relevant specifications or in its absence relevant IS: code of practice.

.Any error in the specification or in quantity or omission of any item from the Schedule of Quantities/ rates shall not vitiate the contract but be adjusted by adding to or deduction from the contract sum provided that no rectification of errors, if any, shall be allowed in the contract schedule of rates.

4. Valuation of variations:

a) All extra or additional work done or work omitted shall be valued at the rates and price set out in the prices schedule of quantities, and/or derived there from. If in arriving at the contract sum, the Contractor have added to or deducted from the total of the items in the tender any sum either as a percentage or proportion, then the same percentage of proportion shall apply to all items or works in the prices schedule as also for valuation of variation.

b) If the contract does not contain any rate or price applicable to the extra or additional work, or the rate or price in the priced schedule of quantities has become in applicable in the opinion of the Engineer-in-charge/ Consultant by virtues of such addition or omission, then suitable rates or price shall be agreed such rates shall be derived by analysis based on standard schedule of rates of State PWD/ PHD or in case such is not available therein, from any approved schedule with the various elements valued at local market price plus 15 (Fifteen) percent towards overheads.

5. The Offers are also to include:

a) To supply all materials, labour, supervision, services, supports, scaffoldings, approach road, construction equipments, tools and plant etc. as required for proper execution of all the items of the work as per drawing and specifications

.b) To provide all incidental items not shown or specified in particular, but reasonable or necessary for successful completion of the work in accordance with the drawings, specifications and schedule of quantities.

c) Cleaning, Uprooting the stumps, vegetation and old masonry etc. met in the trenches and excavation.

d) Providing shoring and shuttering to avoid sliding of soils and removal of the same or completion.

e) De-watering as required and directed.

f) Excavation at all depths (unless otherwise mentioned in schedule), stacking separately usable and disposal of surface earth and materials from site as directed

g) Curing of all concrete and cement work as per specification and direction.

h) Centering, shuttering as required for all concrete work.

l) Bending, binding, tying the grill and placing in position, including supply of all materials and labour etc.

j) To provide water and power required for construction, testing and commissioning.

k) Testing of materials and works as per specification and direction.

12 SPECIAL CONDITION

The contractor shall abide by the Employee Provident Fund and Miscellaneous Provision Act-1952. He should maintain wages register properly and must obtain Employees Provident Fund Code No. and a clearance from the Regional Provident Fund Authorities to the effect that, he has provided provident fund benefits to his labourers / employees.

13 SCHEDULE OF ITEMS

NOTES :-

1. Details of the items under this schedule shall be read in conjunction with the corresponding, Drawings Specifications and other Tender Documents.

2. The work shall be carried out as per drawings, specifications, the description of items in the Schedule and or Engineer's instructions. Drawings enclosed with these documents are only preliminary for giving some ideas of the work involved. Final drawings will be issued progressively during execution of the works

.3. Items of work provided in this Schedule but not covered in the Specifications shall be executed strictly as per instructions of the Engineer.

.4. Unless specifically mentioned otherwise in the contract, the Tenderer shall quote for the finished items and shall provide for the complete cost towards labour, materials, plant and machinery, operational costs, levies, taxes, insurance, consumable, scaffolding, transport, repairs, rectification, maintenance till handing over, revenue expenses, contingencies, overheads, watering, curing, water, power profits and all incidental items not specifically mentioned but reasonably implied and necessary to complete the work according to the Contract

5. The quantities of the various items mentioned in this Schedule are approximate and may vary upto any extent or be deleted altogether. The quoted rates of each item will remain firm as long as the variation in the total value of the works executed under this contract including extra items, if any but excluding any price escalation remain within +/-25% (twenty five percent) of the tendered value of the works. The Contractor, in his own interest, should get an indication of the probable extent of work to be executed under any particular item in this schedule, before undertaking any preliminary work or purchasing bought out components related to the work.

6. Rates shall be quoted both in figures and in words in clear legible writing. No overwriting is allowed. All scoring and cancellation should be countersigned by the Tenderer. In case of illegibility, the interpretation, the decision of the Engineer-in-charge of work shall be final. All entries shall be in English Language. In case if on check there are differences between the rates given by the bidder in words and figures or in the amounts worked out by him, the following procedure should be followed

(i) When there is difference between the rates in figures and in words, the rates which correspond to the amount worked out by the bidder shall be taken as correct

(ii) When the amount of an item is not worked out by the bidder or it does not correspond with the rate retain either in figures or words, then rate quoted by the bidder in words shall be taken as correct.

(iii) When the rate quoted by the bidder in figures and in words tallies but the amount is not worked out correctly, the rates quoted by the bidder shall be taken as correct and not the amount.

7. Engineer's decision shall be final and binding on the Contractor regarding clarification of items in the Schedule with respect to the other sections of the Contract.

8. Unless otherwise specified all works shall be executed following relevant Orissa Standard Specification, Indian Standard Specification, relevant IRC & MOS&T specification and all materials shall confirm to Indian Standard.

14 FORM OF BID/TENDER

[Note : the Appendix forms part of the Bid/Tender. Bidders/Tenderers are required to fill up all the blank spaces in this Form of Bid/Tender and Appendix]

From :

[Name & address of the tenderer]

To

The Director, Culture.

Sanskriti Bhawan

Bhubaneswar.

Sub: Supply, Installation, Testing and Commissioning complete Fire Fighting System of RABINDRA MANDAP&BHANJA KALA MANDAP, BHUBNAESWAR

Dear Sir,

1. Having examined the Drawings, Conditions of Contract, Specification and Bill of Quantities for the execution of the above named works, I/We, the undersigned, offer to execute complete and maintain the whole of the said works in conformity with the said Drawings, Condition of Contract, Specifications and Bill of Quantities for the sum of, (Rs.....) or such other sum as may be ascertained in accordance with the said Conditions.

2. I/We undertake, if my/our Bid is accepted to commence the works within **(Seven)** days of receipt of the work order to commence, and to complete and hand over whole of the works comprised in the Contract within **stipulated time** from the date of work order.

3. If my/our Bid is accepted I/We will furnish a security in the form of Bank Guarantee approved form) to be jointly and severally bound with me/us in an amount of **(Two)** percent of the above named sum in accordance with the Conditions of Contract or a Demand Draft in an amount of **(Two)** percent of the above named sum in accordance with the Conditions of Contract.

4. I/We agree to abide by this Bid for the period of **120 (One hundred twenty) days** from the Date of Bid opening prescribed in the general rules and guide lines to contractors and it Shall remain binding upon us and may be accepted at any time before the expiration of that period.

PTO

5. Unless and until an Agreement is prepared and executed, this Bid, together with your written acceptance thereof, shall constitute a binding Contract between us.

6. I/We understand that you are not bound to accept the lowest or any Bid you may receive.

15

7. I/We agree that we will not withdraw the bid during the period of validity of bids that will be required for intimation of acceptance or non-acceptance as stipulated in general rules and guide lines for contractors or during such extended period as agreed to by us, such period to date from the last date by which bids are due to submitted to the Director, Culture and if we do so withdraw I/We shall forfeit the bid security to Director, Culture ..

Dated thisday of2013

Signature in the capacity of duly authorised to sign

Bid for and on behalf of(in block capitals).

Name of the Witness :

Address :

Signature :

16 .PREAMBLE TO THE SCHEDULE OF QUANTITIES

1. The quantities given in this Schedule of Quantities are liable to variation. Such variation in quantities shall not, however, vitiate the contract in any way whatsoever and Contractor shall be paid for actual measured quantities of work executed by them at the rates given in the tender.

2. The rate quoted shall include all the operations, materials, equipments etc. mentioned in the specifications of respective items of work required to complete job.

3. The rate quoted shall include all statutory taxes in force of local body, State or Central Govt., such as Entry Tax, Octroi, Sales Tax, Contract Sales Tax, Royalty etc., the cost of all carriage of materials, labour, tools and plants, curing and finishing, centering and shuttering, loading and unloading, storage, insurance and all other incidental charges etc. complete.

4. The rates quoted in the Schedule of Quantities are to be full and inclusive of the works described in the Schedule of Quantities, specification including all costs and expenses which may be required for the execution of the work described together with other associated items such as general risks, liabilities and obligations, construction of temporary stores, fencing, watching, lighting, insurance of men and materials, cleaning of site and building after completion of work.

5. The Contractor shall submit various samples of materials for the work. Only such materials as are approved shall be used in the work. All samples of approved materials shall be kept at site in the custody of the clients and shall be handed over to the Contractor after completion of the work.

6. All extra or additional work done by order of Engineer-in-charge shall be valued at the rate and prices set out in the contract, if applicable. For extra items where rate is not available in the contract the rate shall be determined as under.

a) If the rate can be derived from similar items existing in the contract, it will be derived so.

b) If the rate cannot be derived from the existing item of contract, and the rate exists in the schedule of rate, it will be paid at schedule of rate.

c) If the rate does not exist in the schedule of rate but can be derived from analogous items existing in the schedule of rate, the rate will be derived accordingly.

.d) If the rate can not be derived as per above clauses mentioned at (a), (b) & (c), the rate for such items is to be arrived at by actual analysis taking into consideration the market value of materials and actual labour involved. 10% extra shall be allowed on the labour component towards over head and profit.

7. All the measurement shall be jointly taken by Contractor's representative and Engineer-in charge of the work at site and they shall be jointly signed. Any dispute arising out of this shall be referred to the Authorized Officer's of the Corporation and his decision shall be binding on both the parties.8. Purchase vouchers of materials in original shall be produced for verification on demand by the Authorized Officer of the Corporation. Carriage or transport charges shall not be considered for the purpose of this payment.

9. Any deviation between specifications, schedule of quantities and drawings found by the Contractor, the same shall be brought to the notice of the Authorized Officer of the Culture Deptt. immediately.

10 Rates shall be quoted both in figures and in words in clear legible writing. No overwriting is allowed. All scoring and cancellation should be countersigned by the Tenderer. In case of illegibility, the interpretation, the decision of the Engineer-in-charge of work shall be final. All entries shall be in English Language. In case if on check there are differences between the rates given by the bidder in words and figures or in the amounts worked out by him, the following procedure should be followed.

(iv) When there is difference between the rates in figures and in words, the rates which correspond to the amount worked out by the bidder shall be taken as correct.

(v) When the amount of an item is not worked out by the bidder or it does not correspond with the rate retain either in figures or words, then rate quoted by the bidder in words shall be taken as correct.

(vi) When the rate quoted by the bidder in figures and in words tallies but the amount is not worked out correctly, the rates quoted by the bidder shall be taken as correct and not the amount.

11. In case of doubt regarding the meaning and scope of specifications of different items of works and in case of variation in the provisions of IS Specification, National Building Code and Orissa Details Standard Specification and I.R.C., MOS&T specification, the decision of

12. The Director, Culture will be final and binding, and no extra claim over and above the accepted agreement, rules will be payable to the Contractor on this account

13. The Contractor shall carry out the electrical, sanitary and water supply through the agency as approved by the Government whose name shall be submitted to the authorized officer for approval. All works carried out shall comply with Rules, Bye-laws, and regulations in force. All testing fees for materials as required shall be borne by the Contractor only.

14. All formalities such as obtaining approvals for water supply, drainage and fire fighting installations, getting the works inspected or tested in the presence of concerned officials obtaining completion certificates for the installation and final connection of water supply and drainage for the building shall be the responsibility of the Contractor and no extra payment shall be payable to the Contractor on this account.

15 The work of plumbing and drainage shall be carried out by skilled plumbers in line and level as instructed and as per good engineering practice.

16. The holes in walls, RCC members, etc. shall be made very carefully after prior permission of the authorized officer of the Corporation before laying necessary pipe lines and the same shall be made good as per the surrounding surface without any extra cost, as per the satisfaction of the authorized officer.

17. The Corporation can omit or add item. Any extra item of to be carried out, the rate for the same shall be decided by the Authorized Officer of the Culture Deptt.

18. All the fittings of external pipes and sanitary ware shall be fitted in such a way that they shall be absolutely watertight.

18. All the fittings and fixtures shall be of I.S./ Approved make.

Authorized Officer of Culture Department

18 SPECIAL NOTE

1. The rates to be quoted for different items must be inclusive of cost and carriage of all materials, labour, tools and plants, hire charges, curing and finishing, scaffoldings centering and shuttering, Sales Tax, Octroi, Royalties and all other local and Central Taxes and duties, insurance and other incidental charges etc. complete except where otherwise specifically mentioned.

2. The works carried out for any item of work is to be completed as per the direction of the Authorized Officer of the Government (herein referred as Authorized Officer) is not specifically otherwise mentioned in the item Contractor's bill at source at rates prescribed as per statutory rules. However, the amount

3. Royalty on minor minerals used in the contract work shall be deducted from the deducted towards royalty charges can be refunded to the Contractor if clearance certificate from the concerned Department is produced by the Contractor establishing payment of the royalty.

19. THE RATES TO BE QUOTED IN THE TENDER SCHEDULE SHALL INCLUDE

1. Making all drips, grooves, moulds, curved surface and chamfered edges, etc. in concrete and/or plasterwork as directed.
 2. Forming all expansion and/or construction joints as directed.
 3. All projections too thin and ornamental work and finishing to shape as directed.
 4. Embedding all electric pipes, boxes, fan hooks, false ceiling suspensions and insets of any other description etc. in RCC slab or beam as directed.
 5. Installing a calibrated cube-testing machine at site, getting it calibrated every year and resubmitting a test report to Culture Department.
 6. Preparing test cubes and testing them at site or in an approved laboratory.
 7. Working up or hacking of concrete surface for providing keys for further concrete work including applying thick cement slurry or mortar as directed.
 8. Providing 12mm thick cement plaster (1:4) with punning and a layer of bitumen craft paper on all surfaces serving as bearing for RCC work.
 9. Basement floor shall be taken as floor level one.
 10. Use of shuttering oil as specified.
 11. Use of cement slurry over shuttering before commencing concreting.
 12. Machine mixing consolidating by vibrating and tamping, hoisting, all lifts and leads and curing.
 13. Sinking of floors in specified areas.
 14. Providing dowel bars wherever necessary (cost of bars to be paid as reinforcement).
 15. Forming cut outs, openings and reconstructing at a later stage as necessary unless otherwise specified.
 16. Work in narrow, width, small quantities and curved alignments, etc.
 17. Removing rust, mill scales, oil grease, paint etc. from reinforcing bars.
 18. Wastage due to cutting bars to required lengths.
 19. Cost of 18 gauge annealed binding wire.
 20. Providing cover to steel with cement concrete briquette spacers.
 21. Payment of steel weight actually placed in position as per design and drawing and as directed as per Indian Standard Section, weights and no allowance shall be made for rolling margins.
 22. Sand used shall be coarse river sand with fineness modulus 2.5 and aggregate shall be hard granite stone unless otherwise specified.
 23. The rates quoted for RCC and shuttering for beams, slabs and fins, etc. shall include for inverted cantilever, circular and sloping members unless otherwise mentioned.
 24. The tender rate should include providing and mixing water proofing material in cement concrete work wherever required in the proportion recommended by the manufacturers.
- NB: The rates of consumption of cement for different grades of concrete in RCC works should be as per the latest circular / Analysis of Rates followed by Govt. of Orissa.

21. TENDER FOR WORKS.

I/We hereby tender for the execution for the Director, Culture, Odisha, Bhubaneswar of the work specified in the under written memorandum at the rates specified thereon within the period as mentioned in the tender call notice from the date of written order to commence and accordance in all respects with the specification, designs, drawings and other documents referred to in rule thereof and subject to the annexed conditions of contract and with such materials as are provided for in all respects in accordance with such conditions.

MEMORANDUM.

- a) Name of the work: **Supply, Installation, Testing and Commissioning complete Fire Fighting System of Rabindra Mandap and Bhanja Kala Mandap, Bhubaneswar.**
- b) Estimated cost Rs. _____ lakh
- c) Earnest Money Deposit Rs. _____ /-
- d) Period of completion **2 (Two) Calendar Months**
- e) Initial security deposit (including earnest money) to be deposited before drawal of agreement 2% (Two percent) of the tendered amount.

f) Percentage to be deducted from the bill @ 5% (five percent) towards performance guarantee

g) Total number of items of work tendered for As per schedule attached here'o

Signature of Tenderer Signature of Authorized officer

Should this tender be accepted I/We hereby agree to abide by and fulfil all the terms and provisions of the said conditions of contract annexed hereto or in default thereof forfeiture to pay to the Orissa Industrial Infrastructure Director, Culture, Odisha, Bhubaneswar

Dated _____

WITNESS _____

Occupation _____

CONTRACTOR

WITNESS _____

Occupation _____

The above tender is hereby accepted by me on behalf of the Director, Culture, Odisha, Bhubaneswar.

Dated _____, Bhubaneswar

Signed on behalf of the Director, Culture, Odisha, Bhubaneswar.

Dated _____

Common seal of the _____ is affixed in the manner laid down as per the provisions of Rules framed under Orissa Corporation Rules in presence of me.

Signature

Designation of the Officer of the Culture Deptt.

22 FORMS AND FORMATS

(A) SECURITY DEPOSIT

BANK GUARANTEE PROFORMA IN LIEU OF SECURITY DEPOSIT

Bank Guarantee to be executed on non-judicial stamped paper worth Rs. (Rupees _____) only

1. In consideration of the _____, Director, Culture (Hereinafter called "The Corporation having agreed to allow (M/s _____) (Hereinafter called "the said Contractor _____ date _____ terms and conditions of an agreement no. (_____) for supply of materials (as detailed in the said agreement) and for the due fulfilment by the said contractor(s) of the terms and conditions contained in the said agreement, on production of Bank Guarantee for Rs. _____) we (_____) (hereinafter referred to "the Bank") do hereby undertake to pay the Culture Department an amount not exceeding Rs. _____ against any loss or damage caused to or suffered by or would be caused or suffered by the Corporation by reason of any breach by the said contractor(s) of any of the terms of conditions contained in the said agreement.

2. We (_____) do hereby undertake to pay the amounts due and payable under this guarantee without any demur, merely on a demand from the Corporation Stating that the amount claimed is due from the Corporation (Stating that the amount claimed is due by way of loss or damage caused to or suffered by the Corporation by reason of any breach by the said contractor (s) of any of the terms and conditions contained in the said agreement or by reason of the contractor (s) failure to perform the said agreement. Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs. _____) We (_____) further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said agreement and that it shall continue to be enforceable till all the dues of the Corporation under or by virtue of the said agreement have been fully paid and its claims

satisfied or discharged or the (_____) Culture Department Odisha, Bhubaneswar

, certifies that the terms and conditions of the said agreement have been full and properly carried out by the said contractor(s) and the guarantee shall then be in-effective. Unless a demand or claim under this guarantee is made on us in writing or before the

(_____) we shall be discharged from all liability under this guarantee thereafter.

4. We (_____) further agree that the corporation shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said agreement or to extend time of performance by the said contractors and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said contractor(s) or for any forbearance, act or omission on the part of the Government or any indulgence by the Culture Deptt. the said contractor(s) or by any such matter or thing whatsoever which under the law relating to sureties would but for this provision have effect of so relieving us.

5. We (_____) lastly undertake not to revoke this guarantee during its currency.

6. Notwithstanding what is stated above the guarantee is valid up to (_____) from the date of execution and our liability therein is limited to a maximum of Rs. _____ unless a suit or an action to enforce a claim under the guarantee is filed against

(_____) on or before

(_____) all rights of the Culture Department, under the guarantee, shall be forfeited and the said Bank shall be released and discharged from all liabilities there under.

Date at _____ the _____ day of _____ two thousand _____.

N.B.: 1. Name of the supplier.

2. Number and date of order/agreement.

3. Name of the Bank.

4. Name of the Division Office.

5. Validity period or date up to which the guarantee is valid.

Signature of the Constituent

Authority of the Bank with Seal

(A) PERFORMANCE GUARANTEE FORMAT

PROFORMA FOR PERFORMANCE BANK GUARANTEE

Bank Guarantee No. _____

Date _____

WHEREAS _____ (hereinafter referred to as "The Owner") which expression shall unless repugnant to the context includes their (legal representatives, successors and assigns having) their registered office at

_____ has placed a purchase order (hereinafter referred to as the "Supplier") which expression shall unless repugnant to the context include their legal representatives, successors and assigns) for supply of _____ on the terms and conditions as set out, (interalia), in the Owner's purchase order no. _____ dated _____ and various documents forming part thereof hereinafter collectively referred to as the "Said purchase order" which expression shall include all amendments, modifications and/or variations thereto. AND WHEREAS one of the conditions of the "Said purchase order" is that the Supplier shall furnish to the Owner a Bank Guarantee from a Nationalised Bank for _____ (_____ percent) of the total value of the "Said purchase order against due and faithful performance of the materials supplied including defects liability obligation against the performance guarantee obligations of the supply made under the said purchase order.

AND WHEREAS the "Supplier" has approached

(hereinafter referred to as the Bank) having their registered office at _____ and at the request of the supplier and in consideration of the promises the Bank have agreed to give such guarantee as hereunder :-

(i) The Bank hereby undertake to pay the amount due and payable under this guarantee without any demur merely on a demand from the Owner stating that the amount claimed is due by reason of (default made by the supplier in supplying the materials as per) the terms and conditions of the said purchase order including defects liability obligations in fulfilling the performance guarantee obligations against the supply made by the supplier under the said purchase order. Any such demand made on the Bank by the owner shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However, the Bank's liability under this guarantee shall restricted to an amount not exceeding

Rs. _____ (Rupees _____).

(ii) The Owner will have the full liberty without reference to the Bank and without affecting the guarantee to postpone for any time or from time to time the exercise of any powers and rights conferred on the owner under the said purchase order and to enforce or to for bear from endorsing and powers or rights or by reasons of time being given to the supplier which under law relating the surety would but for the provisions have the effect of releasing the surety.

(iii) The rights of the Owner to recover the said sum of Rs. _____ (Rupees _____) only from the Bank in manner aforesaid will not be affected or suspended by reasons of the fact that any dispute or disputes have been raised by the supplier or that any dispute(s) are pending before any office, tribunal or court.

(iv) The guarantee herein contained shall not be affected by the liquidation or winding up, dissolution, change of constitution or insolvency of the supplier but shall in all respects and for all purchases be binding and operative until payment of all money due to the Owner in respect of such liability or liabilities is affected. Notwithstanding any thing stated above, the liability of the Bank under this Guarantee is restricted to Rs. _____ (Rs. _____ only) and this guarantee shall expire on _____ unless a demand or a claim under this guarantee is filed against the Bank within _____ i.e. the date of expiry of the guarantee, all the rights of the Owner under the said guarantee shall be forfeited and the Bank shall be relieved and discharged from all liabilities hereunder. Accordingly, this Guarantee shall remain in force till _____.

25. However, if the supplier's obligations against which this Guarantee is given are not completed or fully performed within the period, Bank hereby agrees to further extend the guarantee for a further period of six months. We have the power to issue this Guarantee in your favour under the discretionary powers vested on us.

Signature of the Constituent
Authority of the Bank with Seal

26 AGREEMENT

The Agreement is made this _____ day of _____ 2014
between Director, Culture Department, Odisha, Bhubaneswar, represented by _____
Deputy Director, Culture, _____ here in after referred to as Govt. in Culture Deptt." which expression shall where the context so requires or admits, also includes its successors or assignees of the one part.

AND

_____ represented by _____ hereinafter called the Contractor" which expression shall where the context so requires also includes its successors or assignees of the one part.
Whereas

Culture Department invited tenders from intending contractors for execution of _____
_____ at _____ and whereas the Contractor offered his tender to construct, execute & complete such work in all respect in conformity with provision of Agreement and whereas Culture has accepted his tender & issued work order in his letter No. _____ dt. _____ for execution & completion of the work with the following condition. PTO

Now this Agreement witnesses as follows :

1. In this Agreement, words, expression shall have the same meaning as are respectively assigned to them to the conditions of contract hereinafter referred to.
2. The following documents shall be deemed to form and to be read and construed as part of this Agreement as follows :

i) Terms and conditions : Annexure - 'A'

ii) Bill of quantities : Annexure - 'B'

3. That in consideration of the payment of Rs. ----- by the Government in Culture Department to the contractor as hereinafter mentioned, the contractor hereby covenants with the Corporation to construct & complete the work ----- in all respects in conformity with the provisions of the contract.

4. The corporation hereby covenants to pay the contractor the contract price in consideration of the construction & completion at the time and in the manner prescribed in the contract

5. The Contractor will not vary or deviate from the said plans and specification without obtaining permission in writing of the Culture Department.

6. The Contractor shall make good any defects, shrinkage or other faults that may appear in the works within six months after their completion

7. In-case the Contractor shall commit the break of any covenants herein contained the Corporation shall be at liberty to terminate this Agreement giving 15 days notice.

8. The Contractor shall indemnify to the Corporation from all claims for injury, death, caused to any person under workmen Compensation Act, 1938. Besides the contractor shall comply all the provisions of prevailing Labour laws during execution of work.

9. Both the parties agree by mutual consent that any dispute relating to this Agreement is barred from Arbitration. All problems shall be mutually settled and the decision of Culture Department shall be final and binding on the contractor.

10. In the event of any dispute that may arise out of this assessment the competent Courts situated at Bhubaneswar shall have the jurisdiction to decide such disputes / litigations between parties hereto.

IN WITNESS WHERE OF the parties have caused their respective common seals to be herein to affixed (or have here into set their respective hands & seals) the day and year first written above.

Witness :

1. Signature of the Party of the one part
2. Witness :

1. Signature of the Party of the other part
2. Witness:

27. GENERAL RULES AND DIRECTIONS FOR THE GUIDANCE OF CONTRACTORS

DIRECTOR, CULTURE ODISHA, BHUBANESWAR

GENERAL RULES AND DIRECTION

FOR THE GUIDANCE OF CONTRACTORS

ITEM RATE TENDER & CONTRACT FOR WORKS

1. All works proposed for execution by contract will be notified in a form of invitation to the Contractors signed by the Chief Engineer/ Chief General Manager or any other officer so authorized by the Government.

The notice will state the work to be carried out, the items and approximate quantities thereof as well as the date of submitting and opening of tenders also the amount of earnest money to be deposited and the amount of the security deposit to be deposited by the successful tenderer and the percentage if any, to be deducted from bills. Copies of the specification, designs and drawings and any other documents required in connection with the submission of tender signed for the purpose of identification by the Chief Engineer /Chief General Manager/ General Manager/Joint General Manager/Authorized Officer shall be open for inspection by the Contractor at the office of the Chief Engineer/ Chief General Manager/ General Manager/Joint General Manager/ Authorized Officer of Orissa , Government Culture Department Odisha, Bhubaneswar Bhubaneswar, during office hours. Tenderers are PTO

to got through the drawings, design and specification and other documents and inspect the site before submission of tender.

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 payments made on account of work, 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 works tendered for and the memorandum of materials to be supplied by the Govt. Culture Department, Bhubaneswar and their issue rates shall be filled in and completed in the office of the Director, Culture, Sanskruti Bhawan Odisha, Bhubaneswar General Manager/ Authorized Officer before the tender form is issued, if a form is issued to an intending tenderer 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. Any person who submits a tender fill up the usual printed form stating at what rate he is willing to undertake each item of the work. Incomplete tender and tenders which propose any alteration in 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 by the required earnest money will be liable to rejection. No single tender shall include more than one work, but contractors who tender for two or more works shall submit a separate tender for each. Tender shall bear the name of the work to which they refer written outside the envelop Deposits for earnest money herein before mentioned shall be made in the form of Demand Draft in the prescribed form in favour of **Culture Department, Bhubaneswar** on any Nationalized Bank payable at Bhubaneswar and the Bank Draft thereof should be enclosed with the tender amount to be furnished along with the tender shall not be less than the amount specified in the Tender Call Notice

6. Deputy Director/ Asst. Director or any authorized officer will open the tenders in the presence of the intending contractors who may be present at the time and will enter the amounts of the tenders in a comparative statement in a suitable form. In the event of a tender being rejected the earnest money forwarded there with shall thereupon be returned to the tenderer.

7. The Government shall have the right to reject all or any of the tenders without assigned any reason thereof.

8. In the event of a tender being selected for acceptance, the Corporation inform the tenderer of his selection, who shall thereupon sign copies of the specification and other documents mentioned in rules 1 and 4 for the purpose of identification, within ten days being called upon to do so, failing which the offer will be rejected with forfeiture of EMD. The tenderer of the selected tender shall also deposit the required amount of the Security money (2% of tendered value) within the prescribed time. If the selected tenderer fails to deposit the required amount of the security money in shape of Demand Draft or Bank Guarantee, the Government may reject the tender with forfeiture the earnest money. Format for such Bank Guarantee (both as EMD and Initial Security Deposit to be treated as Performance Guarantee) is enclosed. However, the Contractor may furnish both EMD and ISD in shape of Bank Draft on any nationalized Bank payable at Bhubaneswar in favour of **Director, Culture, Odisha,**

9. When a tender is selected for acceptance, the tenderer shall deposit in the Office the required amount of the security money in shape of Bank Guarantee in the prescribed form on any nationalized bank located in the State of Orissa or Bank Draft in favour of the **Director, Culture, Odisha,** on any nationalized Bank in Bhubaneswar. No tender shall be finally accepted until the required amount of the security money has been deposited.

10. The amount of initial security deposit money to be deposited by the tenderer whose tender is selected for acceptance shall be 2(two) percent (including EMD already deposited) of the tendered amount of the work. The security money shall be deposited by the selected tenderer within such time as may be notified to him in writing by the Corporation, failing which tender shall be liable for rejection and Earnest money may be forfeited. **This ISD will be released after successful completion of work and preparation of final bill.**

11. When tender has been selected for acceptance and the required amount of the security money has been deposited, the authorized officer of the Corporation shall scrutinize all pages of the Item rate tender and contract for works to see that the form has been properly filled up and signed by the Contractor and the signature of witnesses.

He shall then, if he is competent to accept the tender, sign the acceptance of the tender or if he is not so competent, shall send the tender document for acceptance to the officer competent to accept it.

In addition to the earnest money deposit (at the time of submission of tender) and security money (to be deposited by the selected tenderer before drawl of agreement) a further deduction of 5 (Five) percent will be made from each and every bill of the Contractor towards performance security by the Corporation. **The entire (5%) security money so deducted will be released to the Contractor after one calendar year from the date of completion of the work.**

12. Besides, deductions towards Sales Tax on works contract, and Income Tax & royalties will be made from each and every bill of the Contractor as per statutory orders of the competent/appropriate authority and credited to the concerned Departments of State/ Central Governments. Necessary certificate towards such deduction will be furnished by the Culture Department to the Contractor.

13. The total amount of security money to be deposited by the tenderer entrusted with execution of the work shall be percent of the estimated value of the work and towards this amount the earnest money already deposited by him shall be credited. At least 2/7th of this security inclusive of the earnest money shall be deposited by the tenderer within such times as may be notified to him in writing by the office opening the tenders failing which the tender shall be liable to rejection. The remaining amount of the security money outstanding after completion of the contract with the tenderer may be made up by deduction of 5 (five) percent of the amount of each payment to be made to him in shape of running bills for the work done under the contract.

14. The tenderer has to furnish valid Income Tax Clearance Certificate, Income Tax PAN, valid VAT clearance certificate and valid EPF registration certificate along with the tender.

15. The tender will remain valid up to **120 days (One hundred twenty days)** from the date of receipt of tender.

16. The tenderer has to furnish the details of work in hand and details of work done during the last three years as per the format furnished below.

A) Details of work in Hand :

SL. No

Name of the work Total value of the work

Approx. value of the work already

Value of the work in

Authority under whom executed

Remarks

executed hand

1 2 3 4 5 6 7

B) Details of past experience:

SL

No

Name of the work Total

agreement

value

Authority

under whom executed

Stipulated time& period of completion

Actual time

period taken for completion

Remarks

1 2 3 4 5 6 7

//page-18//

17. No other terms and conditions as other than those mentioned in the tender documents will be accepted
18. The tenderer can attend the office of Director, Culture, Odisha, Bhubaneswar) to clarify any doubts regarding the tender conditions, specifications & drawings etc

31. CONDITIONS OF CONTRACT

CLAUSE - I

All compensation/penalty or other sums of money payable by the Contractor to Director, Culture under the terms of this contract may be deducted from, or paid by, the sale or a sufficient part of his security deposit or from the interest arising there from, or from any sums which may be due or may become due to the Contractor by the Director, Culture on any account whatsoever and in the event of his security deposit being reduced by reason of any such deduction or sales as aforesaid the Contractor shall within ten days thereafter make good in cash or Bank Draft any sum or sums which may have been deducted from, or raised by, sale of the security deposit or any part thereof.

CLAUSE - II

PENALTY FOR DELAY:

Time is deemed to be essence of the contract on the part of the Contractor. 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 the work is given to the Contractor. On receipt of the work order, the Contractor will give a schedule of construction and stick to the time schedule during execution. In case he fails to observe the approved time schedule during the intermediate period of the execution of work, penalty will be levied and will be recovered @ 1/2% on the value of work lagging behind for every week delay in execution of the portion or component of work for which programme is given in the time schedule. The penalty thus recovered at different stages may be waived in full or part if the authorized person of Govt. in Culture Deptt. in-charge of the work is satisfied that the Contractor has made up the delay at subsequent stages and the work proceeds as per original time schedule. The decision of the authorised officer in charge of the work is final and binding as regards recovery and waive of penalty at the intermediate stages of the execution of the work.

If the work is delayed at the completion stage the penalty levied cannot be considered unless the work is finished in all respect within the time schedule. The work should not be considered as finished until such date as the Govt. shall satisfy as the date on which the work is finished after necessary rectification of defects as pointed out by the Govt. or its authorized officer are fully complied with by the Contractor to the Govt. satisfaction provided all ways that entire amount of penalty to be paid under provision of this Clause shall not exceed 10% of the contract value of the work.

Penalty levied for any delay which will occur during the last 3 months of the contract period cannot be considered for waiver by any Authority other than the Director, Culture, Odisha, Bhubaneswar. Subject to the consideration that the application for waiver or penalty to the Director, Culture the Govt. can only be considered if work gets finally finished within time schedule. It is mutually agreed by both the parties that in case of any dispute arising out of the provisions of this clause, the decision of the Director, Culture is final and binding on both the parties and the decision is neither arbitral or changeable within the court of law.

CLAUSE - III

ACTION WHEN WHOLE SECURITY DEPOSIT IS FORFEITED:

In any case in which under any clause or clauses of this contract, the Contractors shall have rendered himself liable to pay compensation/ penalty amounting to the whole of his security deposit in the hands of the Government (whether paid in one sum or deducted by instalments) the authorized officer on behalf of the Director, Culture, shall have power to adopt any of the following courses, as he may deem best suited to the interest of Government

(a) To rescind the contract (of which rescission notice in writing to the Contractor under the hand of the authorized officer of the Corporation shall be conclusive evidence) and in which case, the security deposit of the Contractor shall stand forfeited, and be absolutely at the disposal of the Corporation.

(b) To employ the labour, paid by the Orissa Industrial Infrastructure Development Corporation and to supply materials to carry out the work, or any part of the work, debiting the

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Contractor with the cost of the labour and the price of the materials (of Director, Culture 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 rates as if it had been carried out by the Contractor under the terms of his contract, the certificate of the authorized officer of the Govt. as to the value of the work done shall be final and conclusive against the Contractor.

(c) To measure up the work of the Contractor, and to take such part of the work of the contract as shall be un-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 sum which would have been paid to the original Contractor if the whole work had been executed by him (of the amount of which excess the certificate in writing of the authorized officer of the Govt. in Culture Deptt. 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 the Director, Culture Odisha under the contract or otherwise or from his security deposit or the proceeds of sale thereof, or a sufficient part thereof. In the event of any of the above courses adopted by the Government , the Contractor shall have no claim to compensation for any loss sustained by him by reason of his having purchased or procured any materials, or entered into any engagements, or made any advance on account of or with a view to, the execution of the work or the performance of the contract. And in case the contract shall be rescind under the provision aforesaid, the Contractor shall not be entitled to recover or be paid any sum for any work, thereto for actually performed under this contract, unless and until the authorized officer of the Government shall have certified in writing the performance of such work and the value payable in respect thereof and he shall only be entitled to be paid the value so certified

(d) Security deposit of the Contractor shall be refunded only after final bill is paid and completion of defect liability period of 12(Twelve) months from the date of completion of the work .

CLAUSE - IV

CONTRACTOR REMAINS LIABLE TO PAY COMPENSATION

IF ACTION NOT TAKEN UNDER CLAUSE- IV:

In any case in which any of the powers, conferred upon the Corporation by Clause-III hereof 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 hereof and such powers shall but withstanding be exercisable in event or any future case of default by the Contractor of which by any clause or clauses hereof he is declared liable to pay compensation/ penalty amounting to the whole of his security deposit, the liability of the Contractors for past and future compensation/penalty shall remain unaffected.

CLAUSE - V:

EXTENSION OF TIME:

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 Culture Department within 30 days of the date of the hindrance on account of which he desires such extension as aforesaid and the Corporation shall, if in its opinion (which shall be final) reasonable grounds be shown therefore, authorize such extension of time, if any, as may in its opinion, be necessary or proper. The Govt. in Culture Deptt. shall at the same time inform the Contractor whether it claims compensation for delay and recover the same as a penalty for delay. No price escalation will be allowed in the event of extension of time granted on genuine grounds.

CLAUSE - VI:

FINAL CERTIFICATE:

On completion of the work, the Contractor shall be furnished with a certificate by the Culture Department of such completion, but not such certificate be given not shall the work considered to be completed until the Contractor shall have removed from the area of the premises (to be distinctly marked by the Culture Deptt. in the site plan) on which the work shall be executed, all scaffolding, surplus materials and rubbish, and cleaned off the dirt from all woodwork, doors, windows, walls, floors or other parts of any structure, 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 authorized officer of Govt. in Culture Department, Orissa accordance with the rules of the department whose measurements shall be binding and conclusive against the Contractor. If the Contractors 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 authorized officer of the Culture Deptt. 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 and such scaffolding or surplus materials as aforesaid except for any sum actually realized by the sale thereof.

CLAUSE - VII:

**PAYMENT ON INTERMEDIATE CERTIFICATE TO BE REGARDED AS
ADVANCE AND BILL TO BE SUBMITTED MONTHLY:**

A bill shall be submitted by the Contractor each month or before the date fixed by the Culture Deptt. for all works executed in the previous month and the authorized officer of the Culture Deptt. or its subordinate shall take the requisite measurement for the purpose of 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 authorized officer of the Culture Deptt. or its subordinate shall measure up the said work in the presence of the Contractor whose counter signature to the measurement list shall be sufficient warrant and the authorized officer of the Culture Deptt. Or its 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 7% (seven percent) 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 unskilled work to be removed and taken away and reconstructed or re-erected, or be considered as an admission of the due performance of the contract, 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 Govt. 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 to the contractor will be made in a regular basis subjected to availability of funds from client.**

CLAUSE - VIII:

The final bill shall be prepared by the officer of the Culture Department in accordance with the rules of the Govt. in the presence of the Contractor within three month of the date of completion.

CLAUSE - IX:

STORES SUPPLIED BY Government in Culture Department

CLAUSE - X:

WORKS TO BE EXECUTED IN ACCORDANCE WITH SPECIFICATION, DRAWING AND ORDERS ETC.:

The Contractor shall execute the whole and every of the work in the most substantial and workman like manner, and both as regards materials and otherwise in every respect in strict accordance with the specification. The Contractor shall also conform exactly, fully and faithfully to the designs drawing and instructions in writing relating to the work signed by the authorized officer of the Govt. 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 hours and the Contractor shall, if he so require, be entitled at his own expenses to make or cause to be made copies of the specifications, and of all such designs, drawings and instructions as aforesaid.

CLAUSE - XI:

DO NOT INVALIDATE CONTRACTS:

The authorized officer of the Culture Deptt. shall have power to make any alterations minor addition 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 writing signed by the authorized officer of the Govt. 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

EXTENSION OF TIME IN CONSEQUENCE OF ALTERATIONS:

The time for the completion of the work shall be extended in the proportion that the additional work bears to the original contract work and the certificate of the authorized officer of the Govt. shall be conclusive as to such proportion.

RATES OF WORK NOT IN ESTIMATE OR SCHEDULE OF RATES OF THE GOVERNMENT OF ODISHA:

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 current sanctioned schedule of rates of the Government of Orissa for the locality during the period when the work is being carried on by adding/ subtracting only the differential cost of cement, steel, octroi, royalty and contract tax, no difference of labour rates is to be considered and if such last mentioned class of work is not entered in the current schedule of rates of the Government of Orissa then the Contractor shall within seven days of the date of his receipt of the order to carry out the work inform the authorized officer of the Corporation of the rate which it is his intention to charge for such class of work, and if the authorized officer of the Culture Department 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 nor additional items of work shall ordinarily be carried out by the Contractor, nor shall any altered, additional or substituted altered or additional items have been approved and fixed in writing by the officer authorized by the Govt.. 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 authorized officer of the Corporation, 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 the 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 hereinbefore 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 incurred by him prior to the determination of the rates as aforesaid according to such rate or rates as shall be fixed by the Government. In the event of a dispute, the decision of the Managing Director, will be final and binding

CLAUSE - XII:

NO COMPENSATION FOR ALTERATION IN OR RESTRICTION OF WORK TO BE CARRIED OUT:

If at any time after the commencement of the work the Director, Culture, Odisha, Bhubaneswar, shall for any reason whatsoever not require the whole thereof as specified in the tender to be carried out the authorized officer of the Culture Deptt. 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 but which he did not derive in consequence of the full amount of the work not having been carried out, neither shall he have any claim for compensation by reason of any alterations having been made in the original specifications, drawing, designs and instruction which shall involve any curtailment of the work as originally completed.

CLAUSE - XIII: ACTION AND COMPENSATION PAYABLE IN CASE OF BAD WORK:

If it shall appear to the authorized officer of the Culture Deptt. or his sub-ordinate in-charge of the work, that any work has been executed with unsound, imperfect or unskilled 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 authorized officer of the Culture Department 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 reconstruction work so specified in whole or in parts as the case may require, or as the case may be, remove the 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 authorized officer of the Culture Department 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 Authorized Officer Culture Department of the 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. The compensation deducted under this clause is not refundable at any stage.

CLAUSE - XIV: WORK TO BE OPEN TO INSPECTION:

All work under or in course of execution or executed in pursuance of the contract shall at the times be open to the inspection and supervision of the authorized officer of the Culture Department and his subordinates and the Contractor shall at the times during the usual working hours, and at all other times at which reasonable notice of the intention of the authorized officer of the Culture Deptt. 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 purpose. 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.

CLAUSE - XV: NOTICE TO BE GIVEN BEFORE WORK IS COVERED UP:

The Contractor shall give not less than five days notice in writing to the officer authorized by the Culture Department or his sub-ordinate in-charge of the work before covering up or otherwise placing beyond the reach of measurement 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 placed beyond the reach of measurement, any work without the consent in writing of the Authorized Officer of the Culture Deptt. 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 Contractor's expense, or in default thereof no payment or allowance shall be made for such work or the materials with which the same was executed

CLAUSE - XVI: CONTRACTOR LIABLE FOR DAMAGE DONE AND FOR IMPERFECTION FOR 12 MONTHS AFTER CERTIFICATE

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If the Contractor or his work people or servants shall break deface, injure or destroy any part of a building, road, fence, enclosure, or grass land, or cultivated ground contiguous to the premises on which the work or any part of it is being executed, or if any damage shall happen to the work, while in progress from any cause whatsoever or any imperfection became apparent in it within **12 Twelve**) months from the date of final certificate of its completion shall have been given by the officer authorized by the Corporation, as aforesaid, the Contractor shall make the same good at his own expense, or in default, the authorized officer of the Culture Deptt. may cause the same to be made good by other workman, and deduct the expense (of which the certificate of the authorized officer of the Culture Deptt. shall be final) from any sums that may be then or at any time thereafter may become due to the Contractor or from his security deposit or the proceeds of the same 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 authorized officer of the Culture Department. It may be clearly understood that so far as this contract is concerned, the contractor has to actually maintain and attend to rectification of all defects at his cost for a period of 18 months from the date of handing over/ completion of the work and he will make provisions for attending to such repairs and maintenance in his rates.

CLAUSE - XVII: CONTRACTOR TO SUPPLY PLANT, LADDERS, SCAFFOLDING ETC.

The Contractor shall supply at his own cost all materials (except such special material, if any, as may in accordance with the contract be supplied from the Corporation's 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 or which may be necessary for the purpose of satisfying on complying with the requirements of the Corporation as to any matters as to which under this conditions he is entitled to be satisfied which he entitled to require together with carriage therefore to and from the work. The Contractor shall also supply without charge the requisite number of person with the means and materials necessary for the purpose of setting out works and counting, weighing and assisting in the measurement or examination at any time and from time to time of the work or materials/ Failing any money due to the Contractor his so doing the same may be provided by the Culture Department at the expense of the Contractor and the expenses may be deducted from 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 defence of every suit, action or other proceedings at law that may be brought by any person for injury sustained owing to neglect of the above precautions, and to pay any damages and cost which may be awarded in any such suit, action or proceedings to any such person or which may with the consent of the Contractor be paid to compromise any claim.
by any such person.

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CLAUSE - XVIII:

WORK NOT TO BE SUBLETED:

The Contract shall not be assigned or sublet without the written approval of the officer of the Culture Department. And if the Contractor shall assign or sublet his contract, or attempt to do so, or become insolvent or commence any insolvency proceeding or make any composition with his creditor, or attempt to do so, or if any bribe, gratuity, gift, loan, perquisite reward or advantage, 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 person in the employ of Government in any way relating to his office or employment, if any such officer or person shall become in any way directly or indirectly interested in the contract, the officer authorized by the Government may thereupon by notice in writing rescind the contract and the security deposit of the Contractor's shall thereupon stand forfeited and be blacklisted and the same consequences shall ensure as if the contract shall not be entitled to recover or be paid for any work therefore detection of such occurrence actually performed under the contract and for which payment had not been made, since the date of detection of such occurrence.

CLAUSE - XIX:

SUM PAYABLE BY WAY OF COMPENSATION TO BE CONSIDERED AS A REASONABLE COMPENSATION WITHOUT REFERENCE TO ACTUAL LOSS:

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 Culture Department without reference to the actual loss or damage sustained, and whether or not any damage shall have been sustained

CLAUSE - XX

CHANGES IN CONSTITUTION OF FIRM:

In the case of tender by partners, any change in the constitution of the firm shall be forthwith notified by the Contractor to the Corporation for its information. In case of failure to notify the change in the constitution within fifteen days, the officer authorized by the Culture Deptt. may be notice in writing rescind the contracts and the security deposit of the Contractor shall there upon stand forfeited and the absolutely at the disposal of the Culture Deptt. and the same consequences shall ensure as if the contract had been rescinded under clause 3 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 - XXI :

All works to be executed under the contract shall be executed under the direction and subject to the approval in all respect by the authorized person of the Culture Deptt. 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 - XXII:

LUMP SUM IN ESTIMATES:

When the estimate on which a tender is made include 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 officer authorized by the Culture Department capable of measurement, may by him discretion pay the lump sum amounts entered in the estimate, and the certificate in writing of the authorized officer of the Culture Deptt. shall be final and conclusive against the Contractor with regard to any sum or sums payable to him under the provisions of this clause.

CLAUSE - XXIII:

ACTION WHERE NO SPECIFICATION:

In the case of any class of work for which there is no such specification as is mentioned in rule 1, such work shall be carried out in accordance with ISI, ODS and specification furnishes by Culture Department and in the event of these being no specification, then in such case the work shall be carried out in all respects in accordance with the instructions and requirements of the Officer authorized by the Culture Deptt

CLAUSE – XX1V:

DEFINITION OF WORKS:

The expression "words" of "work" 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 to be executed, whether temporary or permanent and whether original, altered, substituted or additional.

CLAUSE - XXV :

The Govt. shall be entitled to recover in full from the Contractor any amount that the Corporation may be liable to pay under Workman's Compensation Act VIII of 1923, to any workmen employed in course of execution of any part of the work covered by these contract.

CLAUSE - XXVI:

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

CLAUSE - XXVII:

The Government 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 - XXIII:

Sanitary arrangements will be made by the Contractor at his own cost for his labour camp.

CLAUSE - XXIX:

The Contractor shall bear all taxes including sales tax, income tax royalty, octroi, fair weather charges and tollage, contract tax etc. in respect of this work

CLAUSE - XXX:

After the work is finished all surplus materials 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. The ground up to 100'-0" wide from the work site should be cleared and dressed.

CLAUSE - XXXI:

FAIR WAGE CLAUSE:

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

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

The Government shall have the right to enquire into and decide any complaints alleging that wages paid by the Contractors to any labourer for work done by such labourer is less than the wages as per the sub paragraph (1) above.

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

c) In respect of all labour directly or indirectly employed in the works for the performance of the contractor's part of this agreement, the Contractor shall comply with or cause to be complied with all regulations made by Govt. in regard to payment of wages, wages period deductions from wages, recovery of wages not paid and deductions unauthorized made, maintenance of wage register, wage cards publication of scale of wages and other forms of employment, inspection and submission of periodical return and all other matter of like nature.

d) The authorized officer of the Culture Deptt. shall have the right to deduct, from the money due to the Contractor, any sum required or estimated to be required for making good the loss suffered by a worker or workers by reason of non-fulfilment of conditions of the contract for the benefit of the workers non-payment 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, the Contractor shall be primarily liable for all payments to be made under and for the observance of the regulations aforesaid without prejudice to his right to claim indemnity from his sub-contractor.

(f) The regulations aforesaid shall be deemed to be a part of this contract and any breach thereof shall be reach of this contract. The Contractor before commencement of the work shall obtain necessary labour contract license from the appropriate authorities and submit an attested copy of the same to the Government.

CLAUSE - XXXII:

The Contractor shall abide by the relevant Act and Rules/ Regulations in force of the State of Orissa regarding labour employed in construction work. The Contractor shall be fully and solely responsible for any compensation/fine that may be imposed for violation of the said Rules/ Regulations/ Act.

CLAUSE - XXXIII:

The contractor shall abide by the relevant Act like Minimum Wages, Employees Provident Fund, ESI etc. and Rules/Regulations in force of the state of Orissa from time to time for the labour/fine that may be imposed for violation of the said Rules/ Regulations/ Act. employed in construction work. The contractor shall be fully and solely responsible for any compensation

CLAUSE - XXXIX:

The Contractor should have the Sales Tax Registration number otherwise additional 4% is to be kept withheld from his bills till Sales Tax Registration Number is produced by the Contractor. If Contractor fails to produce the Sales Tax Registration Number before final bill is paid, the whole amount is to be shown as recovery for want of Registration Number and credited to Culture Deptt. account.

CLAUSE - XXXX:

Steel centering and shuttering materials shall be used for all RCC works as far as possible.

CLAUSE - XXXVIII:

The consumption of paper/water and Electricity at the site office shall be reduced to minimum as far as practicable.

CLAUSE - XXXXI:

Reduction of dust at work site and use of facemask by the workers in the duty area should be strictly followed.

CLAUSE - XXXXII:

Solid waste at the work site shall be segregated and shall be disposed off safely.

CLAUSE - XXXXIII:

Paints should be properly used with safety measures and excess or drop outs, if any, are to be suitable disposed.

CLAUSE-XXXXIV

An amount of 1% cess on the cost construction will be deducted from each bill of the contractor.

ODISHA P.W.D./ ELECTRICITY DEPARTMENT CONTRACTOR'S LABOUR REGULATION

1. Short Title:

These regulations may be called "The Orissa Public Works Department/ Electricity Department Contractor's Regulation.

2. Definitions:

In these regulations, unless otherwise expressed or indicated the following words and expressions shall have the meaning hereby assigned to them respectively, that is to say:

(a) "Labour" means workers employed by a Contractor of the Culture Department directly or indirectly through a sub-contractor or other person or by an agent on his behalf;

(b) "Fair Wages" means wages whether for time or piece work prescribed by the State Public Works Department/ Electricity Department for the area in which the work is done;

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

(d) "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 notices regarding wages, etc.:

The Contractor shall :

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

(b) Send a copy of such notices to the authorized officer of Culture Department.

4. Payment of Wages:

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

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

5. Fixation of wage period :

(a) The Contractor shall fix the wage period in respect of which the wages be payable.

(b) No wage period shall exceed one month.

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

(d) 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.

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

6. Wage book and wages cards etc.:

i) 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.

ii) The Contractor shall also maintain a wage card for each worker employed on the work.

iii) The authorized officer of Government 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 deduction which may be made from wages:

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

i) Fines;

ii) Deductions 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.

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

iv) Any other deductions, which the Orissa Govt. may from time to time allow.

b) 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.

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

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

8. Register of fines, etc. :

i) 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 was made.

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

9. Preservation of register:

The wage register, the wage cards 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. Powers of Labour Welfare Officers to make investigations of inquiry:

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

11. Report of Labour Welfare Officers:

The Labour Welfare Officer or others authorized aforesaid shall submit a report of the results of his investigation or inquiry to the authorized officer of Culture Deptt. indicating the extent, if any, to which the default has been committed with a note that necessary deductions from the Contractor's bill be made and the wages and other dues be paid to the labourers concerned.

12. Appeal against the decision of Labour Welfare Officers:

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

13. Inspection of Register:

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

14. Submission of return:

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

15. Amendments:

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

The terms and conditions of the contract have been read/ explained to me and quoted my rates accordingly and certify that we have clearly understood them.

Signature of Tenderer

42. SPECIAL CONDITIONS OF FORMING A PART OF THIS CONTRACT

1. All works are to be executed and measured in conformity with the relevant upto date I.S. Specifications, National Building Code and Orissa Detailed Standard Specification, I.R.C. and MOS&T Code of practice and specification. In case of variation in the norms, specifications and methods of execution and measurement as prescribed in the different codes and in case of doubt regarding means and scope of specification of any items, the decision of Director, Culture will be final and binding in this regard. No extra monetary compensation over and above the accepted agreement rates for various item will be paid to the Contractor on this Account.

2. In case of any technical specification not covered in the relevant I.S. Specifications, National Building Code and Orissa Detailed Standard Specification, I.R.C. and MOS&T Code etc., the specification given by the Consultant/ Purchaser/ is final and binding on the Contractor.

3. Every tenderer must examine the detailed specification of Orissa Public Works Department, relevant IS specifications and provisions in National Building Code and IRC, MOS & Specifications before submitting his tender. The right is reserved with the Government without impairing the contract to make such increase or decrease in the quantities or items of work mentioned in the schedule of quantities attached to the tender notice as may be considered necessary to complete the work fully and satisfactorily. Such increase/ decrease shall in no case invalidate the contract or rates. However, increase in quantity of any particular item up to 25% of the tendered quantity the rate quoted/accepted will remain in force. It shall be definitely understood that the Corporation does not accept any responsibility for the correctness or completeness of the quantities shown in the schedule. The schedule is liable to alternation by omission or addition or deduction and such omissions, additions and deductions shall in no case invalidate the contract and no extra monetary compensation will be entertained. At any point of time, the contract can be

terminated if so desired by the Culture Deptt. without assigning any reason thereof after issue of notice in writing by the Corporation before 30 days of the proposed date of termination. In the event of such termination, the Contractor shall not be entitled to any monetary compensation whatsoever

4. It is the responsibility of the Contractor to ensure production of quality concrete of required strength and durability which shall be ascertained by regular field and Laboratory tests in accordance with IS:516 and other relevant Indian Standards. All cost involving such test shall be borne by the Contractor

5. The Contractor shall provide at site required proper plant and machinery including testing equipment's, instruments etc., for concrete at his own cost. The Contractor shall not be paid any thing extra for carrying out any test as directed either at site or at Laboratory. In case of Laboratory test, the name of the Laboratory or Institutions shall be suggested by Culture Deptt. Government of Odisha.

6. INSURANCE AGAINST FIRE, ACCIDENT, DAMAGE AND THEFT:

a) The Contractor shall ensure that he and his sub-contractors use one safe and reliable equipment's. The Contractor shall be responsible for the safe custody and storage of all equipment's, materials, construction tools, tackles and machinery at the site, which are covered by this contract. All Contractors' equipment shall be at the sole risk of the Contractor. The Contractor shall take necessary insurance cover for all tools, tackles and other constructions equipment's and machinery and materials, owned hired or used by the Contractor for performance of the works but which does not form a part of the permanent work. The Contractor shall take necessary action to protect to protect all finished or partially finished construction and protect adjacent or adjoining property, which might be damaged by the process of construction or erection. All expenses incurred for ensuring the above shall be at the Contractor's account.

b) The Contractor shall at the time of signing the contract insure the works and keep them insured until the completion of the contract against loss or damage by fire, theft or other accident in an Office to be approved by Director, Culture, Bhubaneswar in the joint names of the owner and Contractor (the name of the former being placed first in the policy) for full amount of the contract and for any further sum called upon to do so by Director, Culture, the premium of such further sum being allowed to the Contractor as an authorized extra. Such policy shall cover the property of the Director, Culture only, fees for assessing the claim and in connection with the Service generally therein, and shall not cover any property of the Contractor or any sub-contractor or Employees. The Contractor shall deposit the policy and receipt for the premiums with the Director, Culture within Twenty-one days from the date of signing the contract unless otherwise instructed by Culture Deptt.. In default of the Contractor insuring as provided above, Culture Deptt. on his behalf may so insure and may deduct the premiums paid from any money due or which may become due to the Contractor. The Contractor shall as soon as the claim under policy is settled or the work reinstated by the Insurance Office, should they select to do so, proceed with all due diligence with the completion of the works in the same manner as though the fire had not occurred and in all respects under the same conditions of the contract, the Contractor in case of rebuilding or reinstatement after fire, shall be entitled to such extension of time for completion as Director, Culture deems fit. The amount so due as aforesaid shall be the total value of the works duly executed and of the contract materials and goods delivered upon the site for use in the works up to and including a date not more than seven days prior to the date of the said certificate less than amount to be retained by Govt. in Culture Deptt. (as hereinafter provided) and less any instalments paid under this article provided that such certificates shall only include the value of the said materials and goods as and from time as they are responsible, properly and not prematurely brought upon the site and then only if properly stored and/or protected against weather

7.(a) Steel reinforcement if available shall be supplied by the Govt. either in the form of coils or in Standard straight lengths normally available in the market.

(b) No extra payment shall be made to the Contractor for straightening the coiled or bent rods.

8. The measurement of steel reinforcement shall be made on the basis of linear measurement as per standard practice. For the purpose of recovery of the quantity of steel utilized in the work, will be calculated on the basis of standard unit weight of various size bars as mentioned below. In case of any deviation in unit weight from the standard weights mentioned below by more than the percentage allowed by code the same shall be to the Contractor's account. No compensation shall be paid for such variation in unit weight.

Nominal size of Bar in

mm

Weight per Metre in Kg. Nominal size of bar in

mm.

**Weight per
Metre in Kg.**

//page-29//

9. All centering/ shuttering and scaffolding shall be of steel materials of approved quality and conforming to relevant BIS specification. Use of timber in the Centering/ shuttering shall not be permitted except where essentially required and unavoidable. In any case the centering, shuttering work shall be rigid smooth and leak proof so that the resulting concrete members are free from undulations, honey combs and are true to size.

10. All concrete structure will be exposed smooth. However, where the columns, beams, ceilings and RC walls are actually plastered, the same shall be done in approved proportion of cement mortar and payment shall be made for such plastering actually done at the quoted rate for such item in the contract.

11. It is the Contractor's responsibility to correctly demarcate the layout and orientation of the building and fixation of the level pillars at site by his own technical staff as directed by Govt. All expenditure in connection with tool and plants instrument materials etc., required in connection with demarcation of layout including minor levelling the ground, fixation of level, bench marks and centre line etc., shall be borne by the Contractor.

12. The Contractor before any casting of RCC works/ plastering works/ flooring work shall obtain the services/ clearance from the Officer authorized by the Govt.

13. Dewatering of foundations where necessary shall be borne by the Contractor.

14. As regards extra items of work, extra quantity of any item in excess of the schedule, order must be obtained from the Govt. and in such cases; the matter shall be dealt as per provision of Clause-11 of the Contract.

15. The Contractor shall be responsible for any accident to any person and shall have to bear the cost of all litigation arising out of any such accident and also for the payment of any money, damages or compensation payable in respect of such accident to any person, employed by him for the work in any capacity whatsoever

16. The Contractor shall submit to the Authorized Officer of the Govt. monthly return of labour both skilled and unskilled employed by him on the work.

17. No monetary compensation shall be entertained on account of natural calamities like cyclone, earthquake and flood etc., but suitable extension of time may be granted by the Govt. on consideration of the application of the Contractor.

18. Provisional deduction towards Sales Tax and Income Tax shall be made from each and every bill of the Contractor

19. The rates quoted by the Contractor shall be inclusive of transportation, carriage, lead, . In the event of variation on the above taxes, levies, duties etc. rates shall not be changed. loading, unloading al taxes, levy, octroi etc. including contract of the State Government and Excise duties

20. If the Contractor removes any Govt. materials or stock supplied to him from the site of work with a view to dispose off the same dishonestly, he shall, in addition to any other liabilities Civil or Criminal arising out of the contract be liable to pay a penalty equivalent to five times the price of the materials on stock, accounting to the stipulated rate and the penalty so imposed shall be recovered from any sum that may then or at any time thereafter become due to the Contractor or from his security deposit or the proceeds of sale thereof

21. The Contractor should be fully liable to indemnify the Corporation for payment of any compensation under workmen's compensation Act VIII of 1923 on account of the workmen being employed by him and the full amount of compensation paid will recovered from the Contractor.

22. Every tenderer is expected before quoting his rates to inspect the site of proposed work. He should also inspect the quarries and satisfy himself about the quality and availability of materials, medical aids, labour and foodstuffs etc., and the rates may be inclusive of all the items of work. In every case the materials must comply with the relevant specification.

23. For the purpose of jurisdiction in the event of dispute, if any, contract should be deemed to have been entered into at the place, where the contract is signed on behalf of the Govt. within the State of Orissa and it is agreed that, either party to the contract or the agreement will be competent to bring a suit in regard to the matters covered by this contract at Bhubaneswar within the State of Odisha.

PTO

// page-30//

24. After the work is finished, all surplus materials and debris are to be removed by the Contractor and preliminary works such as vats, mixing platforms etc. are to be dismantled and all the materials are to be removed from the site. No extra payment will be made to the Contractor on this account. The rate quoted should be inclusive of all these items.

25. The Corporation 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

26. The Contractor will have to arrange for water supply and electricity at his own cost for all works and make sanitary arrangements for his workmen employed at his own cost for his labour camps. Contractor has to arrange adequate lighting arrangements for night work whenever necessary at his own cost.

27. The tenderer shall have to abide by the C.P.W.D. Safety Code introduced by the Government of India, Ministry of Works Housing and Supply in their standard order **No.44250 Dt.25.11.57.**

28. The Corporation will have the right to supply at any time in the interest of work any Deptt. materials to be used in the work in addition to those mentioned in Clause-1C(b) conditions of contract and the Contractor shall use such materials without any controversy or dispute on that account. The rates of such materials will be at the stock issue rates fixed by the Govt. plus storage charges or market rates prevailing at the time of supply whichever is higher.

29. The Contractor will be responsible for the loss or damage if any, departmental materials, equipment's supplied to him under condition No.9 of the General Conditions and No.35 of the Special Conditions of Contract during execution of work due to any reasons whatsoever and the cost of such materials will be recovered from him at the prevailing stock issue rates plus storage charges or market rates whichever is higher.

30. When any items of work not specifically covered by the accepted tender or contract, is to be executed, it can be taken up departmentally or through any other agency as the Govt. fees fit.

31. In selection of fittings/ glazed tiles, stone/ grills/ paints etc., the decision of the Govt. is final in regard to quality, make, shade etc.

32. No part of the contract shall be sublet without written permission of the Government or transfer be made by Power of Attorney authorizing others to receive payment on the Contractor's behalf.

33. Under no circumstances interest is chargeable for the dues or additional dues if any payable for the work. (As per Orissa Works Department's letter No.3662 Dt.20.12.79).

34. The Contractor shall make all arrangements at his own cost for proper storage of materials and guarding the same.

35. The Govt. reserves the right to delete any item of work incorporated in this agreement from the scope of the contract and execute the same either departmentally or through other agency, without assigning any reason thereof. Such deletion shall not invalidate the contract and no monetary compensation whatsoever shall be paid to the Contractor in this regard.

36. The Contractor shall carry out all the required tests for the works at his own cost in the manner prescribed in relevant I.S. Codes. The tests should be done in presence of the authorized person of the Govt. or his sub-ordinate and duly certified by him regarding the correctness of the tests. The Contractor shall submit a copy of the test results to the authorized Officer of the Govt. immediately after the test. In case the Contractor fails to carry out the tests in the manner prescribed in the relevant I.S. Code, the same shall be carried out by the Govt. and the cost so involved shall be recovered from any amount due to the Contractor

37. In case some machineries are available with the Govt. the same can be utilized by the Contractor on payment of the prescribed hire charges to Govt.. The hire charges as fixed by the Government shall be binding on the Contractor.

38. The Contractor has to provide a net work of pipe lines for proper watering and curing of the works and provide outlet points at suitable places at his own cost. Curing shall be done by the Contractor at his own cost with an arrangement of flexible pipes and nozzles etc. The cost of energy charges, for running of pumps, machineries and lighting arrangements etc. are to be borne by the Contractor. If at any stage, it is observed that the curing being done by the Contractor is not proper and acceptable to the Govt. then the same shall be got done by the Govt. departmentally, or through other agency on actual cost +25% basis without an prior notice to the Contractor. This amount with 25% surcharge shall be recovered by the Corporation from any amount due to the Contractor.

PTO

39. The Govt. will at his discretion and convenience and for the duration of the execution of the work may provide land for construction of Contractors field, office, godowns work shops and assembly yard required for the execution of the contract nearest to the site. The tenderer shall at his own cost construct all these temporary buildings structures and provide suitable water supply and sanitary arrangement as approved by the authorized officer of Government and other inspectorates

40. MATERIALS OBTAINED FROM DISMANTLING:

If the Contractor in the course of execution of the work is called upon to dismantle any part for reasons other than those stipulated specifically in the tender else where the materials obtaining in the work of dismantling etc. will be considered as the Government property and will be disposed off to the best advantage of the Govt.

41. WORKS ON SUNDAYS & HOLIDAYS

For carrying out works on Sundays and holidays except curing, the Contractor will approach the authorized Officer of Culture Department or his representative at least two days in advance and obtain permission in writing. The Contractor shall observe all labour laws and other statutory rules and regulations in force. In case of any violation of such laws, rules and regulations, consequence if any, including the cost there to shall be exclusively borne by the Contractor and the Govt. shall have no liability whatsoever on this account

42. The Contractor is required to abide by the fair wages clause as introduced by the Govt. of Orissa in Works Deptt., letter No.LA-VIIR-18-16/52/75 Dt.26.02.1965, No.II-36/61-28812(A) Dtd.27.5.1961 and No.IIM-58-77-22059 Dtd.16.8.1977 or as modified from time to time.

43. The Govt.reserves the right to award a single group or more groups to any tenderer depending on his capability as ensured by the authorized officer of Culture Department and also reserves the right to accept or reject any or all offers without assigning any reason thereof.

44. Cement, Steel and any other materials as may be decided by the Govt. will be issued to the Contractor from time to time according to requirement against signed receipts. The cement consumption register will be maintained at site.

45. The Contractor will enlist himself with State Labour Department and with Regional Provident Fund Commissioner and will abide by the statutory rules and acts being enforced by them like labour license etc. In case of any complaint by them, pecuniary or otherwise Culture Department is entitled to recover such of their claims from the dues of the Contractor and dispose the same as instructed by them and may terminate the contract, in case of violation.

46. The Contractor shall be required to obtain requisite license from the concerned Labour Officer for employment of labours in work and should follow the prevailing labour laws.

47. Empty Cement bags shall not be taken back by the Govt. and the same shall the property of the Contractor. However, recovery shall be effected @ Rs.3.00 (Rupees three) only per each empty cement bag from the bills of the Contractor. (If cement has been issued by the Government from its stores)

48. Concrete for reinforcement, cement concrete and flooring shall generally be machine mixed, unless otherwise permitted by authorized Officer of Culture Department. Concrete mixer if available can be supplied by the Corporation at approved hire charges of the Government which will include the running and maintenance and salary of the machine operator.

49. Cut pieces of steel reinforcement shall not be taken back by the Govt., and shall be utilized by the Contractor as far as practicable. However, the quantity of cut pieces resulting after bonafide consumption is required to be duly certified by the Engineer-in-charge which will be accounted for and recovery shall be effected at the issue rate stipulated in the contract. The Contractor can dispose the scrap steel after obtaining due approval of the Govt.

50. All gold, silver and other things of any subscriptions, precious stones, coins, treasures, relics, antiques, and other similar things, which shall be found in, under or upon the site, shall be the property of the Govt.

51. As per provisions under section 3(1) of the building and other construction workers welfare cess act.1996, cess @ 1% of the cost of construction will be deducted from each bill of the contractor.

Signature of Tenderer

TECHNICAL SPECIFICATION FOR FIRE FIGHTING SYSTEMS

48

1.0 TECHNICAL SPECIFICATIONS FOR FIRE FIGHTING SYSTEM

1.1 General

Work under this subhead is time-bound and has to be completed within the time limit set in the tender. Work shall be executed in accordance with an agreed time schedule which shall be submitted by the tenderer along with offer and agreed to by the owners. This specification and scope of works as detailed covers the following activities and services in respect of all the equipment's of fire protection system. The specification for the supply, installation, testing and commissioning of the components and accessories of the Fire Fighting System, shall be in accordance with these Specifications. For items not included in these Specifications and the Special conditions installation shall be done in accordance with the latest ISI Standard/NBC-Part IV/Local Fire Services prevailing rules and regulations for items not covered by any of the above, the installation shall be done as directed by the Engineer-in-charge and as per sound engineering practices.

1.2 Scope of Work

The scope of work in this subhead shall consist of furnishing all labour, materials, equipment and appliances necessary and required to completely do all work relating to the supply, installation, testing & commissioning of Fire Fighting Systems for Rabindra Mandap and Bhanja Kala Mandap, Bhubaneswar, shown on the drawings. The scope of work in general shall include the following.

- i) Fire Fighting Pumps & Accessories and related electrical works
- ii) External & Internal Fire Hydrant System.
- iii) Sprinkler system in entire building.
- iv) Hand Appliances

Without restricting to the generality of the foregoing, the work shall include the following:

A. Hydrant System Covering the entire complex and consisting of the following:

- (i) Four number of Pumps – One number Main electric Pump of 2280 LPM at 30 M head, one number of Diesel standby pump for Hydrant& Sprinkler Systems of 2280 LPM of 30 M head, Two numbers Jockey Pumps capacity of 180 LPM at 30 M head each. ii) Other piping system ancillaries such as Suction and Delivery Headers, Air Vessel, Pressure Gauges, Pressure Switches, Pump Panel etc. as required.

(iii) Internal Hydrant system where required with single / double headed landing valves on each floor accompanied by swinging type Reel, Hose , RRL Hoses, Branch Pipe etc. all housed at appropriate places as per suitability / required at site.

B. Sprinkler system for basement.

C. Hand appliance as per Bill of Quantities.

D. To obtain the approval of the relevant drawings before actual installation at site and to get the complete installation inspected and passed by the concerned authorities, as may be necessary as per local bye laws. (Any fee payable to the local bodies for such activities shall be reimbursed by the Engineer-in-charge on production of receipt).

1.3 Tenderers Experience

1.3.1 Tenderer should be a specialized Agency for Fire Fighting Systems.

1.3.2 The specialist agency must have sufficient experience in the execution of turn-key projects as specified.

1.3.3 Tenderer must submit with the tender a list of similar jobs carried out by him as required along with the name of works, name and address of clients, year of execution, capacity of plant and value of work etc .

1.4 Technical Information

1.4.1 Tenderer shall submit along with the tender copies of detailed specifications, cuts, leaflets, and other technical literature of equipment and accessories offered by him.

1.4.2 Tenderers attention is specially invited to the special conditions and other clauses in the agreement which requires him to :-

a. Submit detailed drawings.

b. Use material of specific makes and brands.

c. Obtain all approvals from Fire Fighting authorities.

d. Execute the entire work on a turn-key basis so as to provide a totally operating plant.

1.5 Exclusions

1.5.1 Work under this contract does not include the following work:-

1.5.2 Electrical cables up to incoming motor control centre.

1.6 Approvals

The Tenderer shall prepare all drawings and obtain approvals of fire fighting works from local fire fighting authorities before starting the work at site

1.7 System Description

1.7.1 The Hydrant System shall comprise of AC motor driven pump set, standby diesel pump set, jockey pump set for pressurisation with all required accessories including valves, special fittings, instrumentation, control panels and any other components required to complete the system in all Respects.

1.7.2 The Hydrant System shall be semi automatic in action and shall be laid covering the entire area externally and all the floors internally with independent piping system. For the Sprinkler System, a separate piping system shall be installed.

1.7.3 The Hydrant System shall be kept pressurised at all times. The proposed Jockey Pump shall take care of the leakages in the system, pipe lines and valve glands.

1.7.5 However, shutting down of the pump set shall be manual except for the Jockey Pump which shall start and stop automatically through pressure switches. In addition to auto start

arrangements, the main pump shall also have an over-riding manual starting facility by push button arrangement

1.7.6 The Internal Hydrant System (Wet Risers) shall be provided on each floor.

1.7.7 Sprinkler system shall be distributed throughout the building so as to cover 10–12 sq. m area with one sprinkler.

Sprinkler risers shall be provided with instantaneous control valve with alarm gang. The entire sprinkler system shall be divided in various zones with the help of flow switches which shall be connected to central annunciation panel so that in case of fire exact location of affected area can be identified.

An overhead tank of 10,000 litres capacity with backup line will be connected to sprinkler riser. A suitable drainage arrangement with bye pass valves shall be provided to facilitate maintenance of sprinkler pipe work.

1.7.8 To compensate for slight losses of pressure in the system and to provide an air cushion for counteracting pressure surges/water hammer in the underground pipe work Air Vessels shall be furnished in the pump room near fire pumps. The air vessel shall be normally partly full of water and the remaining being filled with air which shall be under compression when the system is in normal operation.

1.7.9 The entire Wet Risers, external Hydrant Ring Main System and sprinkler system shall be fed from the water supply (Static Water Tank). The Bidder shall note that the Fire Fighting Pump House is located exactly above the Underground Fire Water Tank of 75,000 ltrs. capacity.

1.8 GENERAL SPECIFICATIONS

1.8.1 Pipes and Fittings

Pipes for Wet Riser system shall be of black steel and medium-duty. Pipes upto 150mm dia shall conform to IS-1239. Pipes with dia 200mm and above (6mm thick) shall conform to IS-3589. All pipes shall be I.S.I. marked. Fittings for black steel pipes shall be malleable iron suitable for welding or approved type cast iron fittings with tapered screwed threads

1.8.2 Jointing

Joint for black steel pipes and fittings shall be metal-to-metal tapered thread or welded joints. A small amount of red lead may be used for lubrication and rust prevention in threaded joints. Joints between C.I. or black steel pipes, valves and other apparatus, pumps etc. shall be made with C.I. or M.S. flanges with appropriate number of bolts. Flanged joints shall be made with 3mm thick insertion rubber gasket.

Note: Joints for pipes and fittings up to 50mm diameter shall be threaded joints using Teflon Tape or equivalent bonding tape on the threads. Joints for pipe and fittings above 50mm diameter shall be welded joints.

1.8.3 Pipe Protection

a) All pipes in under ground masonry trenches/service tunnels, above ground and in exposed locations shall be painted with one coat of red oxide primer and two or more coats of synthetic enamel paint of approved shade.

b) Pipes in wall chases shall be protected from corrosion by 2 coats of bituminous paints.

c) Protection of Underground Pipes: The underground steel pipes shall be protected by coating and wrapping. The coating and wrapping shall be done, in general as per IS:10221-1982. If specified in Bill of Quantities, the proprietary pipe protection system shall be provided as per the Manufacturers recommendation. The proprietary system shall be of approved make.

1.8.4 Installation of Pipes

All pipes shall be adequately supported from ceiling or walls by structural clamps fabricated from M.S. structural e.g. rods, channels, angles and flats. All clamps shall be painted with one coat of primer and two coats of black enamel paint. The contractor shall provide inserts at the time of slab casting or provide suitable anchor fasteners

.The pipe supports or hangers shall be designed to withstand combined weight of pipe, pipes fittings, fluid in pipe and insulation. Pipe supports shall be of steel and coated with rust preventing paint and finished with two coats black enamel paint. The maximum spacing for pipes supports shall be as below:

. Pipe (MM) Spacing (MTR) Size of support

Up to 25 2.0 6mm

32 to 65 2.4 8mm

75 to 125 2.7 10mm

150 & above 3.0 12mm

Pipes supports shall be spaced at maximum interval of 1.5 mtrs. on either side of heavy fitting and valves. Wherever piping passes through walls, pipes sleeves of diameter larger than that of piping shall be provided. Pipe sleeves shall be of steel or cast iron pipe.

The underground piping shall be supported with cement concrete blocks of suitable size and strength provided at an interval of 2.5 mtrs. The pipes shall be laid at 1 mtr depth (top of the pipe) and trench excavated for sufficient width. The rate for pipe shall include the scope of excavation/refilling the trench. 1:2:4 concrete thrust blocks are also to be provided at turning of pipe. The cost of installation includes concrete pedestals etc. as required and to be included in the item rate.

1.8.5 Orifice Flanges

Contractor shall provide orifice flanges fabricated from 6mm thick stainless steel plates on the branch lines feeding different zones/floors so as to allow required flow of water at a pressure of 3.5 kg/sq.cm. for each hydrants and 2 bar at 1800 LPM at installation valve for sprinkler system. The contractor shall design the orifices to ensure the required pressure.

1.8.6 Air Vessel and Air Release Valve

Air vessel on top of wet riser piping shall be fabricated of at least 8mm thick steel to withstand the pressure, with dished ends and supporting legs. This shall be of 250mm dia and 1m high. This shall be complete with necessary flange connection to the wet riser piping and air release valve with necessary piping to meet the functional requirement of the system. The air vessel shall be of continuous welded construction and galvanized to I.S. 4736 – 1968. This shall be tested for twice the working pressure.

1.8.7 Valves & Other Accessories

1.8.7.1 General

Each valve body shall be marked with cast or stamped lettering giving the following information's:

- a) The manufacturer's name or trade mark
- b) The size of the valve
- c) The guaranteed working pressure Isolating valves on the water supply lines shall be full bore ball valve type for pipe diameters up to 50mm. For 65mm dia and above these shall be butterfly valves.

1.8.8 Full Way Ball Valve

The valves shall be of full bore type and of quality approved by the Consultant/Owner. The body and ball shall be of copper alloy and stem seat shall be of Teflon.

1.8.9 Butterfly Valves

The valve shall be of cast iron conforming to relevant IS:13095. The valve shall be of quality approved by the Consultant/Engineer-in-charge

1.8.10 Non-Return Valves

Non-return valves are to be IS:778-1984 manufactured from gun-metal or dezincification resistant brass.

1.8.11 Drain Valve

Drain Valves are to be provided at all low points in the system for draining the water. These shall be 40mm dia full way ball valve fixed on 40mm dia black steel pipe.

1.8.12 Inspection & Testing Assembly

Inspection and testing of the sprinkler system shall be done by providing an assembly consisting of gunmetal valves, gunmetal sight glass, bye-pass valve.

1.8.13 Flow Switch

Flow switch shall be provided on sectional mains and branch lines of sprinkler systems, or as may be necessary and directed by the Engineer-in charge. Flow switch should be suitable to actuate at a minimum of flow of single sprinkler and shall be suitable for connection to a central annunciation panel

1.8.14 Pressure Switches

Pressure switches shall be differential type for operation of all pumps and for the various duties and settings required. Pressure switches shall be for heavy duty operation and of approved make. All pressure switches shall be factory calibrated.

1.9 Internal Landing Valves

The internal landing valves shall be single headed / double-headed made of gun metal and conforming to IS:5290. It shall be complete with hand wheel, quick coupling connection spring loaded type and blank cap.

1.10 Hose pipes, Branch Pipes and Nozzles

Hose Pipe: Hose pipe shall be rubber lined woven jacketed and 63mm in diameter. They shall conform to type-2 (Reinforced rubber lined) of IS:639-1979. The hose shall be sufficiently flexible and capable of being rolled. Each run of hose pipe shall be complete with necessary coupling at the ends to match with the landing valve or with another run hose pipe or with Branch pipe. The couplings shall be of instantaneous spring lock type.

Branch Pipe: Branch pipe shall be of gunmetal 63mm dia and be complete with male instantaneous spring lock type coupling for connection to the hose pipe. The branch pipe shall be externally threaded to receive the nozzle

Nozzle : The nozzle shall be of copper or gunmetal, 20mm in internal diameter. The screw threads at the inlet connection shall match with the threading on the branch pipe, the inlet end shall have a hexagonal head to facilitate screwing of the nozzle on to the branch pipe with nozzle spanner. End couplings, branch pipes, and nozzles shall conform to IS:903-1985. two hoses of 15 mtr. Lengths with couplings shall be provided with each external (yard) hydrant. One nozzle and one branch pipe with coupling shall be provided with each yard hydrant.

1.11 Internal Fire Hose Cabinet

Each internal fire hydrant valve shall be located & housed as per suitability at site. Each internal fire hose Cabinet shall hold Single/Double headed hydrant, Hoses and Branch pipes and 1 no. Dunlop hose reel mounted on a drum.

A) The cabinet shutters & frames shall be fabricated from boxed steel sections and MS plate 2mm thick

.B) The front glass of shutters shall be 5.0 mm thick clear glass and shall be held by means of rubber. Locking arrangement shall also be made with one number of mortise lock of approved make. A separate Key Box of 16 mm thick MS sheet with glass facing shall be provided

.C) The Shutter shall be given a powder coat finish in post office red colour.

1.12 Hose Reel

The hose reel shall be directly tapped from the riser through a 25 mm dia pipe, the drum and the reel being firmly held against the wall by use of dash fasteners. The Hose Reel shall be swinging type (180 degrees) and the entire Drum, Reel etc shall be as per IS:884. The rubber tubing shall be of approved quality and the nozzle shall be 6 mm dia shut off type.

2.0 Sprinkler System

2.1 Sprinkler Heads

Sprinkler heads shall be of quartzite bulb type with bulb, valve assembly yoke and the deflector. The sprinklers shall be approved make and type.

2.2 Types

2.2.1 Conventional Pattern

The sprinklers shall be designed to produce a spherical type of discharge with a portion of water being thrown upwards to the ceiling side of wall extras. The sprinklers shall suitable for erection in upright position or pendant position.

A. Spray Pattern

The spray type sprinkler shall produce a hemispherical discharge below the plane of the deflector.

B. Ceiling (flush) Pattern

These shall be designed for use with concealed pipe work, these shall be installed pendant with plate or base flush to the ceiling with spray head below the ceiling.

2.2.2 Construction

i) **Bulb:-** Bulb shall be made of corrosion-free material strong enough to with stand any water pressure likely to occur in the system. The bulb shall shatter when the temperature of the surrounding air reaches a predetermined level.

ii) **Valve assembly:-** Water passage of the sprinkler shall be controlling assembly of flexible construction. The valve assembly shall be held in position by the quartzite bulb. The assembly be stable and shall withstand pressure surges or external vibration without displacement.

iii) **Yoke:-** The yoke shall be made of high quality gun metal. The arms of yoke shall be so designed as to avoid interference with discharge of water from the deflector. The sprinkler body shall be coated with an approved anti corrosive treatment if the same is to used in corrosive conditions

.iv) **Deflector:-** The deflector shall be suitable for either upright or pendent erection. The deflector shall be designed to give an even distribution of water over the area protected by each sprinkler.

C) Colour Code

The following colour code shall be adopted for classification of sprinkler according to nomination temperature ratings.

Sprinkler Temperature Rating Colour of the Bulb

D) Size of Sprinklers Orifices

The sprinklers shall be of 15mm/20mm nominal bore size, as per suitability, depending on area of

2.2.3 Pipes and Fittings

Pipes for sprinkler system shall be of black steel conforming to I.S. 1239 Heavy class).

Fittings for black steel pipes shall be malleable iron suitable for welding or approved type cast iron fittings with tapered screwed threads.

2.2.4 Jointing

Joint for black steel pipes and fittings shall be metal to metal tapered thread or welded joints. A small amount of red lead may be used for lubrication and rust prevention in threaded joints.

Joints between G.I. or black steel pipes, valves and other apparatus, pumps etc. shall be made with G.I. or M.S. flanges with appropriate number of bolts. Flanged joint shall be made with 3mm thick insertion rubber gasket.

2.2.5 Pipes Protection

All pipes above ground and in exposed locations shall be painted with one coat of red oxide primer and two or more coats of synthetic enamel paint of Post Office red or, as directed by the Engineer-in-charge. Pipes in chase or buried underground shall be painted with two coats of hot Bitumen.

2.2.6 Pipe Supports

All pipes shall be adequately supported from ceiling or walls from structural clamps fabricated from M.S. structural e.g. rods, channels, angles and flats. All clamps shall be painted with one coat of primer and two coats of black enamel paint. The contractor shall provide inserts at the time of slab casting or anchor fasteners later.

2.2.7 Valves

Sluice valves of sizes 80mm and above shall be double flanged cast iron conforming to I.S. 780. Check valve shall be of cast iron double flanged conforming to I.S. 5312. Valves on pipes 65mm and below shall be heavy pattern gunmetal valves with cast iron wheel seat tested to 20 kg/sqcm. pressure. Valves shall conform to I.S. 778.

1. Air Valves

25mm dia screwed inlet cast iron single acting air valves on all high points in the system or as shown on drawings.

2. Drain Valves

50mm dia black steel pipe conforming to I.S. 1239 medium class with 50mm gunmetal full way valve for draining and water in the system in low pockets.

2.2.8 Installation Control Valve

Installation control valves shall comprise of the followings:

- a) One-man stop valve of full way pattern with gunmetal pointer to indicate where open/shut.
- b) One automatic alarm valve fitted with handle & cover.
- c) One hydraulic alarm motor and gong for sounding a continuous alarm upon out-break of fire. One combined waste and testing valve including 5mtr of tubing and fittings.
- d) Alarm stops valve.
- e) Strainer
- f) Drain plug
- g) Padlock and strap
- h) Wall box for installation of valve.

2.3 Pressure Gauges

Borden type pressure gauges conforming to IS/BIS specifications shall be provided at the following locations just above alarm valve.

- b. Just below alarm valve, on the installation stop valve.
- c. One pressure gauge on delivery side of each pump.
- d. Required number of pressure gauges on pressure tank.

2.4 Installation of Piping

a. All above ground piping shall be installed on suitable to pipe hangers/supports as required. The hangers shall be made of MS angles, channels etc. and painted to the required finish with suitable synthetic enamel paint. The maximum spacing of piping supports shall be as follows

- :i) 20mm to 32mm dia 2.5 mtr.
- ii) 40mm to 65mm dia 3.0 mtr.
- iii) 65mm & above 3.0 mtr.

Piping shall be so installed that the system can be thoroughly drained. All the pipes shall be arranged to drain to the installation drain valve. In case of basement and other areas where the pipe work is below the installation drain valve/auxiliary valves of the following sizes shall be provided. 20mm dia valve for pipes up to 50mm dia 25mm dia valves for 65mm dia pipe 32mm dia valves for pipes larger than 65mm dia Piping shall be of screwed type upto 50mm diameter. Welding of joints will be allowed for pipes of above 50mm dia.

The entire piping shall be pressure tested by hydrostatic method upto a pressure of 1.5 times the working pressure. The piping shall be slowly charged with water so that all the air is expelled from the piping by providing a 25mm inlet with a stop cock. The piping shall be allowed to stand full of water for a period of 2 hours and then the piping shall be put under pressure by means of manually operated test pump or by a power driven test pump. The pressure gauges used for testing shall be accurate and shall preferably be calibrated before the testing is carried out. All the leakage's and defects in joints revealed during the testing shall be rectified to the entire satisfaction of the Engineer-in-charge. The system may be tested in sections/parts as the work of erection of piping proceeds. The piping shall with stand 1.5 times the working pressure for at least 2 hours.

2.4.1 Pump Sets :- The Sprinkler system shall be connected to the pump set provided for Internal hydrant system.

3.0 Operating Sequence for the Fire Fighting System

3.1 The operating pressure in the mains is to be maintained at 7.0 kg/cm².

3.2 The jockey pump shall start automatically, the moment pressure drops to 6.5 kg/cm², because of any leakage or minor draw-off from the system and stop when the pressure reaches 6.5 kg/cm² again.

3.3 In case, after the start of jockey pump, the pressure still keeps on falling, the main fire pump shall start at 6.0 kg/cm² by triggering of the pressure switch. Jockey pump shall stop when main pump starts.

3.4 In the event of electrical or mechanical failure of main fire pump (hydrant or sprinkler) to start, the diesel engine driven pump shall cut in when the pressure in the mains fall down to 5.5 kg/cm². The main electric pump shall then be locked out.

3.5 If within a preset period the standby pump fails to start or fails to develop adequate pressure, the control system shall shut down the standby pump, and lock it out, and given an audiovisual indication to that effect at the control panel.

3.6 Jockey pump shall shut down automatically when the fire pump, electric or diesel, is operating. Necessary integration of pipe work and controls shall be provided for the purpose. A timer may be employed where necessary to distinguish between slow fall of pressure due to system leaks and sudden fall of pressure due to fire duty by opening of valves and thus prevent parallel start up of both pressurization and fire pumps.

- 3.7 The control panel shall have status selection for each of the pumps for "automatic" as well as "manual" operation.
- 3.8 Pumps when under "manual" status shall be operated manually through relevant push buttons.
- 3.9 The fire pumps once started shall not be stopped automatically
- 3.10 The fire pumps shall be locked out for operation both for "manual" and "automatic" operations, once the low water controls operates and furnish an audio and visual alarm on the panel the audio alarm can be silenced by accepting the alarm. The visual alarm shall be individual for each equipment. It shall be flashing type and on acceptance remain steady. A reset button shall be provided for each pump for returning the pump for fire duty.
- 3.11 Over load or under voltage/no volt trip devices for electric fire pump shall not be provided in the starter. LED type indication lamps to indicate the availability of power shall be provided.
- 3.12 Once tripped the electric fire pump shall remain locked out for operation irrespective of the position of its operational status selection switch. Lock out indication shall be available on the panel.
- 3.13 Return to normal operational availability shall be feasible only by manual re-set of locked out units by operation of appropriate push buttons.
- 3.14 When fire pumps are brought into operation an audible tone from turbine type alarm operated by water flow in the mains shall be provided to indicate the healthiness of the system. The healthy running alarm shall not be silenced till the fire pump is shut down, but the tone may be mellowed by the operation, if required.
- 3.15 Alarm for failure and lock out of any pump shall distinct from "healthy" alarm. Failure alarms shall be loud and can be silenced on acceptance.
- 3.16 Repeat indication of various audio and visual indications on a slave remote panel in fire control room in building shall be available. The slave Remote panel shall have indication lamps to show the status of :
- a) Power healthy in fire pump room.
 - b) Jockey pump 'ON'
 - c) Main pump 'ON'
- The slave Remote panel shall also have a hotter, which shall sound in case, any pump is 'ON'. The slave Remote panel shall have a provision to reset the hotter with the help of a push button.

4.0 Testing

4.1 Testing on Completion of Installation

The entire system shall be tested after completion of installation as per the operating sequence specified.

4.2 Schedule of Inspection

Testing of fittings/equipments shall be carried out as per relevant BIS codes of practice

OBLIGATION

What already mentioned as the scope of work in the Detail Tender Call Notice (DTCN), the contractor is obliged to carry out the following.

1. The drawings and specifications required for approval of TAC / Local competent fire authorities, the contractor shall prepare fabrication and working drawings for approval and all works shall be carried out according to approved working drawings. Approval of drawings does not relieve the contractor of his responsibility to meet the intents of the specifications. It will be the responsibility of the contractor to get the drawing approved from Local Fire Authorities at his cost and risk before execution of the work
2. Final Approval of concerned authorities for the completed installation (both for electrical and fire fighting system) shall be obtained by the contractor without which the work can not be accepted and final bill will not be paid.

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3. After completion of the work, the contractor shall carry out necessary testing and trial running of the system to the full satisfaction of site –in-charge. Cost of such testing and commissioning shall be entirely borne by the contractor except electrical charges which will be provided by Government at nominal charges.

4. The contractor shall provide training to at least 8-10 staffs of the Corporation / clients for 7 to 10 days on the operation and maintenance of the system at his own cost.

5. The contractor shall have to make good the damages done to the walls, ceilings and flooring by plastering / painting / replacement of tiles to the original condition.

5.0 Standards and Codes

1. IS – 1648 – 1961 Code of Practice for fire safety of building (general) fire fighting equipment and maintenance.

2. IS – 3844 – 1966 Code of practice for installation of internal fire hydrant in multi-stores buildings

3. IS – 2217 – 1963 Recommendation for providing first aid and fire fighting arrangement in public buildings.

4. IS – 2190 – 971 Code of practice for selection, installation and maintenance of portable first fire appliance.

5. IS – 3589 Electrically Welded Steel pipes (Medium class)

6. IS – 1239 Mild steel tubes, Tubular and other wrought steel fittings (Medium class)

7. IS – 780 C.I. Double flanges sluice valve.

8. IS – 778 Gun Metal Valves

9. IS – 909 – 1965 External fire hydrant (underground)

10. IS – 5290 – 1969 Internal Landing Valve

11. IS – 884 – 1969 First and hose reel

12. IS – 934 – 1976 Specification for portable chemical fire extinguisher soda acid type.

13. IS – 2873 – 1969 Specification for fire extinguisher for carbon dioxide

14. IS – 2189 & 2109 Automatic fire alarm system or BSS 3116.

15. National Building Code.

LIST OF APPROVED MAKES OF MATERIALS

S.NO. DESCRIPTION MAKES

1. Fire Pumps Kirloskar / Mather & Platt

2. Motors Kirloskar/Crompton

3. Diesel Engine Kirloskar/ Ashoke Leyland

4. G.I. and M.S. Pipes Jindal (Hissar)/GST/BST

5. G.I. fittings Unik Heavy Duty (ISI Marked)

6. Gate valves (Gun Metal/ Ball valves) Zoloto/ Leader/ Sant

7. Sluice Valve/Butterfly valve Kirloskar/Audco

8. Non return valves Kirloskar

9. Mechanical Seal Sealol/ Burgman

10. Underground Piping Coat Integrated water proofing 4 mm thick Pypokote –

11. Flanges Class 150 /Table'E'
12. Couplings Lovejoy
13. Cables (Power & Control) CCI /Somex /Grandly/National
14. Pressure Gauges H Guru/Febiq
15. Pressure Switch INDFOSS/Danfoss
16. Fire Hose Cabinet Vijay /Superex
17. Landing Valve Newage / Safex /Minimax/
18. Hose Reel Drum Newage /Safex/ Minimax
19. Fire Brigade Inlet/outlet Conn. Newage /Safex / Minimax
20. Branch Pipe Newage / Minimax/ Safex
21. Rubber Hose Jyoti /Tiger / Padmini
22. RRL/Canvass Hose New age / CRC / Padmini
23. MV Board/MCC CPRI Approved makes
24. Moulded case circuit breaker L&T /Siemen
25. Switch fuse and fuse switch units L&T /Siemen
27. Contactors and starters L&T/ BCH
28. ERW M.S. Conduits (ISI Mark) BEC/Steel craft ISI marked
29. Anti vibration mountings Dunlop
30. Battery Exide/ Panasonic/ Amron
31. PVC Wires/Cables (Copper) National / Finolex / Somex
32. Flow Switch Kroner Marshall / System Sensor

S.NO. DESCRIPTION MAKES

33. Sprinkler Heads Tyco / HD
34. Water motor gong Spray safe/HD
35. Fire Extinguishers Minimax / Safex

SPECIAL TERMS & CONDITIONS FOR SAFETY MEASURES

1. The Contractor shall barricade all openings near his work place properly.
2. The Contractor should use sand materials for staging and shuttering work. It should be strong enough to take the load. If staging and shuttering work are to be executed on filled up area, care should be taken to see that the filled up earth/sand are properly rammed.
3. The Contractor shall provide temporary handrails to all staircases for use by the workers and supervising officers.
4. The temporary staircases made during concreting should be strong enough for movement of workers with materials.
5. During de-shuttering operation suitable care should be taken so that the shuttering materials will not fall on any body.
6. All external and internal scaffolding works for plastering, painting etc. are to be done properly. Safety belts should be used by the worker while working.
7. Any other safety measures that may be required during construction should also be taken in addition to the measures mentioned above.
8. The Contractor should have one First Aid Box at the site to provide First Aid to the workers.
9. Suitable steps should be taken for any fire during execution of work either from direct fire or from electric fire.
10. Suitable lighting arrangement should be made during execution of the work.
11. Reinforcement and other materials should be properly kept so that they do not interfere in execution of work.
12. The Contractor shall not keep any labour inside the incomplete building during construction.
13. Temporary electric lines should be properly drawn and all labour should be instructed to be careful while using the same.

Estimated cost of Fire Hydrant Wet Riser System

Sl. No.	Description of Items	Qty.	Rate	Amount
1.	<p>S.I.T.C of MAIN PUMP Supply, installing, testing and commissioning of electric motor driven fire pump suitable for automatic operation consisting of following (as per CPWD specification Part V 1985 for fire fighting. a) Fire pump with bronze impeller shall be horizontal split casing centrifugal suction type multistage having a capacity of 2850 its./minute against a total head of 70 meters so as to ensure a minimum pressure of 3.0 kg per sq.cm. at the highest & farthest outlet at the specified flow, complete with necessary strainer foot valve in suction side and pressure gauge and pressure switch on the delivery side including by pass arrangement for periodical testing of the working of the pump set as required. The pump shall be provided with mechanical seals. b) Squirrel cage type TEFC motr suitable for operation on 415 v + 10%, 3 phase 50 Hz, system of suitable HP for above pump with synchronous speed 1500 RPM and flexible coupling. The pump motor should conform to IS:325-1978. c) Common base plate fabricated from mild steel channel or cast iron type. Make – Kirloskar, C.G</p>	1 set		
2.	<p>SITC of jockey pump and periodic commissioning of electric motor driven pressurization pump set suitable for automatic operation consisting of the following (as per CPWD specifications Sprat V 1985) a) Centrifugal pump of 250 LPM capacity capable of building up pressure lost in any leakage in the system against a total head of 70m approx. complete with C.I casing bronze impeller mechanical seal & S.S. shaft necessary strainer, pressure gauge & pressure switch on delivery side etc. including by pass arrangement for testing of the working of the pump set as required. Make – Kirloskar, C.G</p>	1 no.		
	<p>Fabricating, supplying, installation, testing and commissioning of L.T. cubical type compartmentalized panel board fabricated from 2 mm thick CRCA sheet, phosphates and painted. The panel shall be dust and vermin proof, totally enclosed free standing floor mounting type, extendable from the both sides, detachable gland/knockout plates with suitable size cable alleys and loose wire box. 600 A bus bars, necessary connections, interconnections with copper conductors earthing etc. as required and with following switch gears mounted there on.</p> <p><u>SECTION-I (INCOMING)</u> i) 400 A, 415 V, TPN MCCB having breaking capacity of 50 KA with electronic trip device and N/L etc. – 1 no. ii) 600 A TPN bus bar – 1 set. iii) One set voltmeter (0-500 volts) with selector switch, 1 no. Ammeter (0-400 A) with CTs and selector switch, phase indication lamps with backup fuses.</p> <p><u>OUTGOING</u> i) 200 A, 415 V, TPN MCCB having breaking capacity of 35 KA with electronic trip device and N/L etc. – 1 no. (for fire pump) ii) 63 A, 415 V, 50 Hz, TPN MCCB having breaking capacity of 10 KA with electronic trip device and N/L etc. – 1 no. (for pressurization pump) iii) 32 A, 230 V, 50 Hz, DP MCB – 2 nos. (One for battery charge unit and other for auxiliary supply)</p>	1 no.		

	<p>SECTION – II (FOR FIRE / HYDRANT) i) Automatic Star delta starters suitable for main fire pump motor, ammeter (0-200 A) selector switches, set of suitable ration CTs with indicating lamps ON/OFF with necessary control system components such as relay, contactors, timers etc. as required.</p> <p>SECTION – III (FOR PRESSURIZATION PUMP) i) Automatic Star delta starters suitable for pressurization pump motor with single phase preventer, ammeter (0-60 A) selector switches, set of suitable ration CTs with indicating lamps ON/OFF with necessary control system components such as relay, contractors, timers etc. as required.</p>			
4.	Supplying, installing and testing of first aid hose reel full swing type with 30m long 20 mm dia made with thermoplastic synthetic reinforced material pipe with shut of nozzle of 6 mm dia complete as required including 25 mm dia M.S pipe connection from riser to hose reel with all sockets, nipples, elbows & 25mm dia full way valve as required conforming to IS : 884 of 1985 and IS : 1532 of 1969.	6 nos.		
5.	Supplying, installing and testing of Siamese four way Fire Brigade inlet connection of 63 mm instantaneous inlet coupling with chain plug, caps to existing 150 mm dia flanged M.S / G.I pipe to wet riser including providing non return valve and all other accessories complete as required.	1 no.		
6.	Supplying, installing and testing of hydrant comprising the followings but excluding sluice valve complete as required. a) Stand post for single outlet. b) Fire hydrant valve with single outlet, 100 mm N.B. flanged inlet (OD-220 mm, PCD-180 mm, 8 holes of 90 mm dia), 63 mm instantaneous coupling outlet complete with chain plug caps. c) Orifice plate. d) Rubber insertions, bolts & nuts. e) Flanged C.I / G.I Tee tapping from UG ring mains duck foot bend flanged riser and any other accessories as required.	3 nos.		
7.	Supplying, installing and testing of ISI mark & TAC approved hose pipe 63 mm dia, 15 meters in length with instantaneous type coupling on both ends as required.	4 nos.		
8.	Supplying, installing and testing of 63 mm dia branch pipe with instantaneous type male coupling on one end and threading on the other, conforming to IS : 903 of 1985 as required.	4 nos.		
9.	Supplying and fixing indoor type weather proof hose cabinet of suitable size to accommodate a hydrant unit with 1 nos. 63 mm dia 15 metter long flexible hose pipe and branch pipe but not less than 800mm x 900mm x 600mm size made out of MS sheet of not les than 1.5 mm thick having centre opening glazed door with locking arrangement on existing wall including painting with Fire Red paint etc. as required.	3 nos.		
10.	Providing and fixing Riser and sprinkler piping conforming to IS-1239 with fitting support clamp and treatment of outer surface by one coat of Red oxide primer and two coats of enamel red paint (TATA, JINDAL)			
	a) 150mm Nb M.S medium	18 mtr.		
	b) 100mm Nb M.S medium	65 mtr.		
	c) 80mm Nb M.S medium	20 mtr.		
	d) 65mm Nb M.S medium	6 mtr.		
	e) 40mm Nb M.S medium	10 mtr.		

	f) 32mm Nb M.S medium	20 mtr.		
11.	Providing and fixing of C.I Flanged foot valve etc as reqd.			
	a) 150mm Nb	1 no.		
	b) 80mm Nb	1 no.		
12.	Providing and fixing of 15 mm size (male threaded) quartzod bulb type sprinkler head (UL/FM/LOC listed approved)			
	a) Standard pendent type in chrome finish 68° C rating.	58 nos.		
13.	Providing and fixing of GM Bulb valve as per IS 778 etc as reqd.			
	a) 25mm Nb bulb valve as per IS778	12nos		
	b) 25mm Nb spring loaded Safety	2 nos.		
14.	Providing and making suitable size of masonry enclosure for size of sluice valve / non return valve with 1 st class designated brick work in cement mortar (1:5) inside plastering in cement mortar (1:3) & finished with floating coat of CC (1:5:10) tap slab of RCC (1:2:4) with cast iron surface base 100 mm dia bottom and 180 mm depth (inside) with chair lid etc. as required.			
	a) sluice valve 150mm	2 nos.		
	b) sluice valve 100 mm	2 nos.		
	c) Non return valve 150mm	2 nos.		
	d) Non return valve 100mm	2 nos.		
15.	Providing and fixing of lever operated C.I water type butter fly valve as per IS 13095 etc as reqd.			
	a) 100mm dia	2 nos.		
16	S.I.T.C of Pressure switch including necessary fitting and bulb valve etc as complete as reqd.	4 nos.		
17.	S.I.T.C of Pressure Gauge 100 mm dia and 0 to 15 kg sqcm including necessary fitting and bulb valve etc. as reqd.	4 nos		
18.	1" air release valve as per IS Standard GM spring type with necessary fittings.	2 nos.		
19.	Sprinkler Controller panel	1 no.		
			Total	

(Rupees Nine Lakhs Seventy Five Thousand Seven Hundred Ten only)

ESTIMATED COST OF AUTOMATIC FIRE ALARMING& DETECTION SYSTEM

Sl.No	Particulars	Qty	Rate(Rs.)	Amount (Rs.)
1	SITC of 8zone fire alarming control panel including 2nos. of 26 Amp 12 v maintenance batter with complete PA system	1		
2	SITC of Ionization smoke detector	65		
3	SITC of rate of Rise Temperature Heat Detector	7		
4	SITC of 24 v operator electronic hooter	4		
5	SITC of manual call point	4		
6	SITC of supply fire exit glow luminescent signage	15		
7	SITC of 2 X 1.5sqmm.Copper armored cable	1200 mtr.		
8	SITC of 4.5Kg capacity Co2 type Fire Extinguisher any ISI	15 nos.		

APPROVED


Director & Additional Secy. to Govt.