TECHNICAL SPECIFICATIONS FOR THE WORK

➢ General

1. The specifications and mode of measurements for Building works shall be in accordance with Central Public Works Department (CPWD) Specifications 2009 Volumes I and II and Kerala PWD Manual and that for Road and Bridge works shall be in accordance with MoRTH/IRC specifications with up-to-date correction slips unless otherwise specified in the nomenclature of individual item or in the individual item specification in the Bill of Quantities. The entire work shall be carried out as per the above specifications in force with up-to-date correction slips issued up to the date of opening of tender.
2. For the item not covered under CPWD Specifications mentioned above, the work shall be executed as per latest relevant standards/codes published by B.I.S. (formerly ISI) inclusive of all amendments issued thereto or revision thereof, if any, up to the date of opening of tenders.
3. In case of B.I.S. (formerly I.S.I) codes/specifications are not available, the decision of the Engineer based on standards prescribed by ASTM, BS, DIN, AASHTO and similar organizations or acceptable sound engineering practice and local usage shall be final and binding on the contractor. However, in the event of any discrepancy in the description of any item as given in the bill of quantities or specifications appended with the tender and the specifications relating to the relevant item as per CPWD/MoRTH or other specifications mentioned above, or in drawings the former shall prevail.
4. The work shall be carried out in accordance with the design and drawings furnished by the Department . The drawings shall have to be properly co-related before executing the work. In case of any discrepancy noticed between the drawings, final decision, in writing of the Engineer shall be obtained by the contractor. For items, where so required, by the relevant clause in PWD Quality Control Manual, samples shall be prepared before starting the particular items of work for prior approval of the Engineer and nothing extra shall be payable on this account.
5. All materials to be used on works shall bear I.S. certification mark unless specifically permitted otherwise in writing. In case I.S. marked materials are not available (not produced), the materials used shall conform to relevant I.S. Code or CPWD/MoRTH specifications, as applicable in this contract.
6. In such cases the Engineer shall satisfy himself about the quality of such materials and give his approval in writing. Only articles classified as "Premium/First Quality" by the manufacturers shall be used unless otherwise specified. First tier Quality Control tests for all materials and work shall be done as per the procedure and frequency detailed in PWD Quality Control Manual.

Proper proof of procurement of materials from authentic manufacturers shall be provided by the contractor to the satisfaction of Engineer. Manufacturer's test certificate shall also be produced by Contractor as required in the relevant provisions of the PWD Quality Control Manual. The contractor shall carryout Mix Design for all RCC works done by the labs approved by Engineer-in-Charge only. Reinforcement Steel used shall be of TMT, of Grade as detailed in the structural drawings or as instructed in writing by the Engineer-in charge. The cost of additional cement required as per Mix design shall not be paid extra. The minimum cement content shall be 350kg/ cum of concrete

7. In respect of the work of other-agencies deployed in the same site through a separate contract by the KCA for doing work like electrification, air-conditioning, external services, other building work, horticulture work, etc. and any other agencies simultaneously executing other works, the contractor shall afford necessary coordination and facilities for the same. The contractor shall leave such necessary holes, openings, etc. for laying / burying in the work pipes, cables, conduits, clamps, boxes and hooks for fan clamps, etc. as may be required for the electric, sanitary air-conditioning, firefighting, PA system, telephone system, C.C.T.V. system, etc. and nothing extra over the agreement rates shall be paid for the same.

8. Unless otherwise specified in the bill of quantities, the rates for all items of work shall be considered as inclusive of pumping out or bailing out water if required for which no extra payment will be made. This will include water encountered from any source such as rains, floods, or due to any other cause whatsoever.

9. Any cement slurry added over base surface (or) for continuation of concreting for bond is added its cost is deemed to have in built in the item unless otherwise/explicitly stated and nothing extra shall be payable or extra cement considered with consumption on this account.

10. The rate for all items in which the use of cement is involved is inclusive of charges for curing.

11. The contractor shall clear the site thoroughly of all scaffolding materials and rubbish etc. left out of his work and dress the site around the building to the satisfaction of the Engineer before the work is considered as complete.

12. The rates quoted for all brick/concrete work shall be deemed to include making openings and making good these with the same specifications as shown in drawings and/or as directed. No extra payment shall be made to the contractor on this account.

13. Rates for all concrete/plaster work shall include for making drip course moulding, grooves etc. wherever required and no extra shall be paid for the same.

14. Any drawing(s) attached with the tender documents are for the purpose of tender only, giving the tenderer a general idea of the nature and the extent of works to be executed. The rates quoted

by the tenderer shall be deemed to be for the execution of works taking into account the "Design Aspect" of the items and in accordance with the "Construction Drawings" to be supplied to the Contractor during execution of the works.

15. The quoted rate shall be for finished items and shall be complete in all respects including the cost of all materials, labour, tools & plants, machinery etc., all taxes, duties, levies, octroi, royalty charges, statutory levies etc. applicable from time to time and any other item required but not mentioned here involved in the operations described above. The KCA shall not be supplying any material, labour, plant etc. unless explicitly mentioned so.

16. The Contractor will have to take prior approval of the Engineer/ Architect for the Make of materials before procurement of the same. It may also be noted that if any of the makes does not comply with Standards, it will not be allowed for use. No claim what so ever shall be entertained on this account.

17. The Contractor shall, at his own cost and responsibility, carry out all necessary site surveys, measurements, and investigations required for the proper execution of the work as per the direction of Engineer in charge. No additional payment shall be made on this account, and the Contractor shall be deemed to have satisfied himself regarding the site conditions prior to commencement of the work.

18. Prior to commencement of construction, the contractor shall in consultation with the Engineer-in-charge, establish several site datum bench-marks, their number depending on the extent of the site. The bench-marks shall be sited and constructed so as to be undisturbed throughout the period of construction.

19. The Contractor shall set out the works using Total Station and during the progress of the works shall amend at his own cost any errors arising from inaccurate setting out. During the execution of the work contractor must cross check his work with the drawings. The contractor shall be responsible for all the errors in this connection and shall have to rectify all defects and/or errors at his own cost, failing which the Engineer-in charger serves the right to get the same rectified at the risk and cost of the contractor.

20. Cleaning up and handing over:- Upon completion of the work all the areas should be cleaned. The site shall be cleaned down in a manner which will render the work acceptable to the Engineer-in-charge. All rubbish due to any reason, shall be removed daily from the site and an area of up to ten metres on the outer boundaries of the premises will be cleaned by the contractor as a part of the contract. Upon completion of the Work, the contractor shall hand over to the Assistant Engineer the following:

a) Written guarantee and certificates

b) Maintenance manuals, if any, and

c) Keys.

21. Samples: - The contractor shall submit to the Engineer-in charge samples of all materials for approval and no work shall commence before such samples are duly approved. Samples of materials for concrete works, masonry units, building insulation, finished hardware, door and windows, flooring materials etc. and every other work requiring samples as detailed in the PWD Quality Control Manual or as required by the Engineer-in charge shall be supplied to them and these samples will be retained as standards of materials and workmanship. The cost of procuring the samples shall be borne by the contractor. Throughout this specification, types of material may be specified by manufacturer's name in order to establish standard of quality, price and performance and not for the purpose of limiting competition. Unless specifically stated otherwise, the Bidder may assume the price of 'approved equivalent' except that the burden is upon the contractor to prove such equality, in writing.

22. Tests: - All materials and methods of tests shall conform to the latest rules, regulation and/or specifications as per the provisions laid out in the PWD Quality Control Manual and PWD Laboratory Manual. The Engineer-in charge will have the option to have any of the materials tested and if the test results show that the materials do not conform to the specifications, such materials shall be rejected. The expenses to carry out tests as per frequency and procedure detailed in the PWD Quality Control Manual and PWD Laboratory Manual will be deemed to be included in the Rates quoted.

23. Mode of Measurements: - All measurements will be taken in accordance with PWD manual/IS 1200 latest issue unless otherwise specified.

24. The rates tendered by a Bidder for the work shall include the cost of :

a) All labour and supervision thereof, all materials, tools, implements and plant of every description, ladders, cordage tackle, etc. as well as the provision of safe and substantial scaffolding required for the proper execution of the work in conformity with the various items of work;

b) Supplying the requisite agency with necessary equipments, to set out the work as well as to afford facilities for such examination of the work as the Departmental Officers may at any time consider desirable, as also to count, weigh and assist in the measurement or check measurement of the work or materials;

c) Providing and maintaining all temporary fences, shelters, lights , watchmen and danger signals and such other precautions as are necessary for the protection of the work

or materials, as well as to protect the public and those connected with the work from accidents at the site of, or on account of the work;

d) All sheds, mortar mills and mixing platform of every kind required for the proper execution of the work according to the specifications;

e) All fees and royalties of materials and

f) Finally clearing away of all rubbish, surplus materials, plant etc. on completion of the work and dressing and levelling of and restoring the site to a tidy condition, prior to handing over the work to the Assistant Engineer and also its maintenance until so taken over.

25. The Bidder should state whether he has all the plant necessary for execution of the work. If the opinion of the Engineer-in charge, Bidder's own plant is neither sufficient nor suitable for the proper execution of the work, bidder has to arrange suitable plants on hire at his costs. The decision of the Engineer-in charge in the matter shall be final and binding on the Contractor. The Contractor shall bear the running expenses inclusive of pay of staff attached to such plant

26. Unless otherwise specifically provide for in the Contract, the Contractor shall at his own cost keep all portions of the work free from water whether due to springs, or inclement weather and neat and sanitary condition and shall also see that drainage and sewage are prevented from entering the site of work or accumulating therein.

27. The Bidder shall be responsible for the proper use and bear the cost of protection of materials made over to him by the Department for use on the work and bear any loss form deterioration of from faulty workmanship or any other cause. The cost of materials thus allowed to deteriorate amounting as it does to and excess issue over sanctioned quantities, will be recovered at rates 20 percent over the actual cost. The orders of the Engineer-in charge in the matter shall be final binding on the Contractor.

28. The Contractor shall be responsible to see that the level or the other pegs, profiles, bench, marks masonry pillars or other marks set up by the Department for guidance in the execution of the work are not disturbed, removed or destroyed If the same is disturbed, it will be replaced by the Engineer at the cost of the Contractor.

29. Any materials brought to the site of work, or any work done by the Contractor but rejected by the Engineer-in-charge as being not up to the specifications shall in the case of materials supplied be then and there removed from or broken up at the site of work, and in the case of work done, the dismantled or rectified at the expense of the Contractor, as may be ordered by the Engineer-in-charge.

30. In all cases whether so specified in the contract or not, the work shall be executed in strict accordance with the Contractor's accepted bid and these specifications and with such further drawings and specifications and orders as may from time to time be issued by the Engineer-in charge.

➢ Specialised Works (if any specified in the tender) to be carried out by licensed persons/firms:

1. Technically competent persons or firms holding valid licenses obtained from competent local authority/ proven experience record shall only carry out any special works and service installations included in the scope of the Work.
2. The detailed design of any specialized works, shall be submitted to the Engineer-in-Charge for approval prior to commencement of the work. The design shall be carried out through a competent agency based on a detailed study of the site conditions, including geotechnical, topographical, and loading considerations, and shall conform to the relevant codes, specifications, and project requirements. The design and execution of this specialized work shall be undertaken by a qualified and experienced agency and carried out under the supervision of competent technical personnel with proven expertise in the design and construction of reinforced soil structures, all to the satisfaction and approval of the Engineer-in-Charge.

➢ Project-Specific Conditions and Requirements

i. **Detailed schedule of the programme of the work shall be submitted by the contractor before commencing the work.**

ii. The Contractor shall maintain on site one set of all Drawings issued to him for reference.

iii. The contractor shall be responsible for providing required notices to authorities and to obtain and retain with him at his own cost all other approvals from the statutory bodies pertaining to works under this tender and temporary structures to be constructed at site or equipment to be erected, labour, Employee Insurance, Provident Funds, Tax Departments. etc and any other approval required to facilitate performance of Contractor's work under the Contract till completion. Refusal by statutory authorities to issue any certificate or any other approvals due to the Contractor's failure to observe the relevant rules and regulations in connection of the construction in accordance with the sanctioned plans and/or specifications shall render the Contractor liable for damages and in addition, render him liable to obtain such certificates at his cost.

iv. The contractor is not entitled to do any publicity on account of the Work. Contractor shall not put any hoarding, publish any advertisement, put any banner or circulate any pamphlet or adopt any other publicity methods except with prior written approval of the Engineer-in-Charge. A name board may be made and displayed by the Contractor at his own cost at the Site at some approved place.

v. The Contractor has to maintain facilities at site for first aid including adequate supply of sterilized dressings and cotton wool in a readily accessible place. The Contractor shall report all cases of accidents to the Departmental Officers and the Police, immediately after such accident occurs. He will also have to arrange medical aid necessary, any pay such as compensation as is payable according to Workmen Compensation Act at his own risk and cost. The Kerala Cricket Association reserves the right to withhold reasonable amount from the Contractor's bill towards such payment till the issue is settled. Kerala Cricket Association will not pay any such compensation or medical claim or any other type of claims on any ground.

vi. The quantity stated in this schedule is only approximate and the same can be increased or decreased as per the actual necessity at site. The contractor must execute the quantity of work actually specified by the agreement authority during the course of this work without any change in agreed rate. The tender should be quoted accordingly.

vii. If any loss results to the Kerala Cricket Association due to the fault of bidder to pay the requisite deposit, sign contract agreement or start the work, the same will be recovered from him any way including through recovery proceedings. The Kerala Cricket Association reserves the right to recover from the contractor or bidder any amount due to the Kerala Cricket Association on this contract as well as by other transactions.

viii. The contract is on item rate quoting basis and bidder is required to quote rates for each and every item in the tender. No claim for revision of rates agreed to will be allowed on any account during the currency of this contract or during the extended period of contract if any due to revision of departmental schedule of rates or any other reasons.

ix. The Kerala Cricket Association will not be responsible to provide any facilities outside the site.

x. Water & Electricity:

a. Contractor shall make his own arrangement for electricity and water for construction purposes. The water used for construction purpose shall be potable and tested once in every 6 (six) months. The source of water shall be approved by the Engineer-in-charge.

b. The contractor shall arrange the water good for construction and personal use at his own cost and shall be responsible for all further connections, pumps, pipes, storage facilities and all other things necessary to distribute and use services from this distribution point.

c. The electricity required for Construction Work shall be arranged by the Contractor from the authorities and/ or generators provided at the site at his own cost. Contractor shall be responsible for all distribution points as may be required for the Work. The Contractor shall also make arrangement for alternative standby services at his own cost in the form of additional Generators of adequate capacity (day and night) so that there is no delay in progress of Work as per construction schedule submitted by him and approved by the Engineer-in-Charge. Contractor shall ensure adequate capacity of generators to support such load sharing with other vendors.

d. The contractor shall install the temporary distribution lines for water and electricity ensuring that work of other agencies / vendors is not interrupted or hampered. In case during the course of construction these lines foul or interrupt or hamper the work of other agencies / vendors, the contractor shall remove and relocate the service lines and relocate the same at his own cost within the time stipulated by the Engineer-in-Charge.

e. All statutory Fees, & miscellaneous expenses for obtaining electric power and Water connection for construction purposes shall be borne by the Contractor.

xi. All other conditions currently in Kerala Cricket Association shall be binding on this contract also.

Declaration

I have read and understood fully the implications of all the conditions before submitting the Tender.

Name and Signature:

Address of the Contractor: