



**UNDER  
Ministry of Health & Family Welfare  
(GOVERNMENT OF INDIA)**

**Tender For  
Upgradation of Cold Chain Facilities at GMSD Chennai,**

**Volume-III**

**SPECIAL CONDITIONS OF CONTRACT  
(SCC)**



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**HLL Lifecare Limited  
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## **SPECIAL CONDITIONS OF CONTRACT (SCC)**

### **Definitions and Interpretation**

1. In construing these conditions, the specifications, Bill of Quantities and Contract agreement etc the following words and expression shall have the meaning herein assigned to them except where the subject and context otherwise require.
  - (a) “Act of Insolvency” shall mean any Act of Insolvency as defined by the Presidency Towns Insolvency Act or Provincial Insolvency Act or any Act amending such original.
  - (b) “Approved” means approved in writing, including subsequent written information of previous verbal approval and “approval” means approval in writing, including as aforesaid.
  - (c) “As directed” means the direction given by the Engineer In-Charge/ Client / Project Consultant.
  - (d) “Bill of Quantities” or “Schedule of items” means the schedule and quantities of items, materials and rates, summaries etc. priced and completed and as finally accepted.
  - (e) “Constructional Plant” means all appliances or things of whatsoever nature required in or about for execution or maintenance of the Works but does not include materials or other things intended to form or forming part of the Works.
  - (f) “Consultant” shall mean HLL Lifecare Limited who has been appointed In-house/Project Management Consultant for this project.
  - (g) "Design DPR Consultant (DDPR) shall mean Architect appointed by HLL/MOH&FW for preparation of design and detailed project report as per scope.
  - (h) “Drawings” means the drawings prepared by the DDPR consultant M/s Surinder Sawhney Associates and issued by the Project Consultant and referred to in the tender and specifications and any modification of such drawings and such other drawings, calculations and technical information of a like nature as may, from time to time, be issued by HLL.
  - (i) “I. S.” means latest revision of ‘Indian Standards Specification’ issued by Bureau of Indian Standards.
  - (j) “In-house “Constructional Plant” means all appliances or a thing of whatsoever nature required in or about the execution or maintenance of the Works but does not include materials or other things intended to form or forming part of the Works.
  - (k) “Materials” means the materials, apparatus, equipment, fittings, fixtures and all such other materials, which are incorporated in the work.
  - (l) “Month” means calendar month without regard to the number of working days or non-working days in that month.

- (m) “Net Prices”: If in arriving at the contract amount or contract sum, the Contractor shall have added or deducted from the total amount of the items in the Tender any sum, either as a percentage or otherwise, then the net price of any item in the tender shall be the sum arrived at by adding to or deducting from the actual figure appearing in the Tender as the price of that item and similar percentage or proportionate sum provided always that in determining the percentage or proportion of the sum so added or deducted by the Contractor, the total amount of any Prime cost items and provisional sums of money shall be deducted from the total amount of the tender. The expression “net rates” or “net prices” when used with reference to the contract or accounts shall be held to mean rates or prices so arrived at.
- (n) “Notice in writing” or “written notice” shall mean notice in written, typed or printed characters, sent (unless delivered personally or otherwise proved to have been received) by registered post to the site office/ last known private or business address or registered office of the addressee and shall be deemed to have been received when in the ordinary course of post it would have been delivered.
- (o) “Permanent Works” means the permanent works to be executed (including Plant) in accordance with the Contract.
- (p) "Project Consultant" means consultant appointed by the Client for overall supervision of the project.
- (q) “Specifications” means the specification included and / or referred to in the Tender document and any modification thereof or addition thereto as may from time to time be issued to the Contractor.
- (r) “Temporary Works” means all temporary works of every kind required in or about the execution and completion or maintenance of the Works and the remedying of any defects therein.
- (s) “Urgent Works” means any urgent works which in the opinion of the Client and or HLL becomes necessary at the time of execution and / or during the progress of work to obviate any risk of accident or failure or to obviate any risk of damage to the structure of services or required to accelerate the progress of the work which becomes necessary for safety and security or for any other reason the Client and or HLL may find it necessary.
- (t) Words imparting the single only also include the plural and vice versa where the context requires.

The headings, subheadings and marginal notes (if any) and the catch lines and the Annexure hereto are meant only for convenience of reference and shall not be in any way be taken into account in the interpretation of these presents and the Annexure hereto. The Contractor shall have to carry out and complete the works in every respect in accordance with this contract.

## **2. Languages & Law**

The ruling language in which the Contract and related aspects shall be drawn up shall be English only. Law means - law as applicable to site of work.

## **3. Errors, Omissions and Discrepancies.**

- (a) In case of errors, omissions and /or disagreement between written and scaled dimensions on the drawings or between the drawings and specifications, etc. the following order of precedence shall apply:
- (b) In case of difference between the rates written in figures and words, the later shall prevail.
  - i. Between scaled and written dimension (or description) on drawing, written dimension shall be adopted.
  - ii. Between the written or shown description or dimensions in the drawings and the corresponding one in the specification, the former shall be taken as correct.
  - iii. Between the written description of the item in the specifications and descriptions in the Bill of Quantities of the same item, the latter shall be adopted.
- (c) Between the duplicate/subsequent copies of the tender and original tender, the original tender shall be taken as correct.
- (d) The several documents forming the Contract are to be taken as mutually explanatory of one another, but in case of ambiguity or discrepancies in conditions or specifications the same shall be explained and adjusted by Project Consultant. In case the Contractor does not agree with the explanation given by the Project Consultant then the matter, on his written notice, will be referred to the Client and his decision shall be final and binding to the contractor.
- (e) In all cases of omissions and /or doubts or discrepancies in any of the items or specifications, a reference shall be made to the HLL/MOH&FW. Elucidation, elaboration or decision of the HLL/MOH&FW shall be considered as authentic. The Contractor shall be held responsible for any error that may occur in the work through lack of such reference and precaution.

## **4. Scope of Contract**

The contract comprises the construction, completion, remedying the defect of the works and except in so far as the Contract otherwise stipulates, the provision of all labour, materials, constructional plant, machinery temporary works and everything whether of a temporary or permanent nature required in and for such construction, completion and maintenance so far as necessary for providing the same as specified in or reasonably to be inferred from the Contract.

## 5. Drawings

### (a) Tender Drawings

The tender drawings furnished by the Design DPR Consultant (DDPR) are for Tender purpose only and are intended as a guide to the Bidder / Contractor and give general layout of buildings and general information of the structures and general positions of utilities, services and equipments only. Contractor's quoted rate for any item should not be based on any measurement, quantity, and specification from these drawings. Any claim raised by the contractor in this regard shall not be valid in this contract and shall not be accepted by the Client.

### (b) Issue and custody of drawings & specifications

The contractor on the signing of contract shall be furnished by HLL/MOH&FW free of cost three copies of all drawings prepared by the DDPRC and all further drawings issued during the progress of the works. The contractor shall keep one copy of all drawings at the works site and the Client / HLL shall at all reasonable time have access to the same.

Before the issue of the final certificate to the contractor, he shall forthwith return to the HLL/MOH&FW all drawings and specifications.

The drawings shall be provided to the Contractor as per the schedule (prepared at the starting of the works and necessarily updated or revised from time to time) as mutually agreed by the HLL/MOH&FW and the Contractor. All major drawings may be provided as per the schedule prior to the stipulated date of completion and the Contractor, if found necessary shall increase his resources and effort so as to complete the works within stipulated time

From time to time during the course of contract revised drawings may be issued to the Contractor and the Contractor shall ensure that all superseded drawings are removed from site and stored in a lockable cabinet as directed by the HLL/MOH&FW and replaced by revised drawings.

The Contractor shall maintain complete up to date Register of drawings to be maintained at site. All drawings shall be properly filed and indexed for ready reference.

The contractor shall ensure that only the valid up to date drawings are used for setting out, construction and preparation of working drawings etc.

Detail drawings in all cases shall be worked to in preference to those of a more general nature and figured dimensions where indicated shall be followed in preference to scaled dimensions.

### (c) Working drawings

Working drawings shall mean any or all drawings, required for satisfactory execution of the work except Bar Bending Schedule, shop and fabrication drawings. Three sets of all the working drawings shall be provided to the contractor by HLL/MOH&FW.

Working drawings shall include false ceiling work, Electrical, Water Supply works, Waterproof details, etc. as issued by the CONSULTANT/CLIENT.

Working drawings to be supplied by the CONSULTANT/CLIENT shall be such that all details are included and in an appropriate scale to ensure that the Works are properly executed, coordinated and installed in accordance with drawings and specifications issued by CONSULTANT/CLIENT and as directed by the CONSULTANT/CLIENT.

Bar Bending Schedule, shop and fabrication drawings etc. will not be provided. The Contractor shall have to prepare the Bar Bending Schedule, shop and fabrication drawings etc. free of cost, if required for any of the items of work. The contractor has to get checked & approved the Bar Bending Schedule before cutting / lying of the reinforcement. Five copies of these drawings each including for revision will be submitted to CONSULTANT/CLIENT for approval. Before executing the item, shop drawings should be approved by CONSULTANT/CLIENT

The Contractor shall be entirely responsible for co-ordination of entire work at site including the works carried out and shall ensure that all necessary working drawings are properly prepared & executed by the Contractor.

Review and approval will not extend to means, methods, techniques, sequences or procedures of construction. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.

(d) As-Built Drawings (related to working drawings)

“As Built Drawings” shall be provided by Contractor at the time of handing over and shall be prepared by the Contractor at his own cost.

As-built drawings shall be under preparation from the onset of the contract, in order that all minor amendments and discrepancies from the “Working Drawings” are incorporated. To ensure that this requirement is complied with The CONSULTANT/CLIENT shall inspect the drawings on his request as the Works proceed. The Contractor shall submit 4 sets of “As Built” drawings. One shall be transparency and others shall be prints.

At the discretion of the CONSULTANT/CLIENT and subject only to his express agreement certain workings drawings may be modified and submitted to the CONSULTANT/CLIENT as the “As Built” drawings.

## **6. Disruption of Progress**

- (a) The Contractor shall give adequate but not less than 4 weeks written notice to the Engineer-in-charge whenever planning or progress of the Works is likely to be delayed or disrupted unless any further drawing or order, including a direction, instruction or approval, is required to be issued by the HLL/MOH&FW. The notice shall include details of the drawing or order required explaining why and by when it is required and of any delay or disruption likely to be suffered if it is late.
- (b) If by reason of any failure or inability of the HLL/MOH&FW to issue within 4 weeks any drawing or instruction for which notice has been given by the Contractor in accordance with Sub-clause 1) and the contractor suffers delay then the HLL shall after due consultation with the contractor recommend to the Client any extension of time under respective clause. Notwithstanding anything stated above, the contractor shall not be eligible for any financial compensation arising out of the above.

## **7. Further Drawings and Instructions**

The contractor shall carry out and complete the said work in every respect in accordance with this Contract and with the directions of and to the satisfaction of the HLL/MOH&FW. The HLL/MOH&FW may in his absolute discretion and from time to time further issue drawings and/or written instructions, details, directions and explanations, which are hereafter collectively referred to as “HLL/MOH&FW Instructions” in regard to:

- (a) The variation or modification of the design, quality or quantity of items of works or the addition or omissions or substitution of any item.
- (b) Any discrepancy in the drawings or between the bill of quantities and/or drawings and/or specification.
- (c) The removal from the site of any material brought thereon by the contractor and the substitution of any other material therefore.
- (d) The removal and/or re-execution of any works executed by the contractor.
- (e) The dismissal from the works of any persons employed thereupon.
- (f) The opening up for inspection of any work covered up.
- (g) The amending and making good of any defects under clause thereof.

The contractor shall forthwith comply with and duly execute any such work as per instructions of HLL/MOH&FW, provided always that verbal instructions, directions and explanations given to the contractor or his representative upon the works by the HLL/MOH&FW, shall, if involving a variation, be confirmed in writing by the contractor within seven days, and if not dissented from in writing within a further seven days by the HLL/MOH&FW, such instructions shall be deemed to be instructions of HLL/MOH&FW within the scope of the contract

## **8. Authority and Duties of the HLL/MOH&FW**

The HLL has been appointed by and duly authorized by the Client to supervise, test, examine, approve or reject any material and / or works, to order, cancel, alter, modify, any of the materials, items of works within the framework of the contract and as per the technical specifications, drawings and schedule of items issued by the HLL/MOH&FW and the DDPRC. The HLL is further authorized to administer the contract, check, correct, modify and certify or reject any bill or requests for payment for materials, Items or works. The HLL shall obtain prior approval of the Client for any deviation from the contract including extension of time to the contractor.

The duties of HLL are given in this document elsewhere, however main duties are as under:-

- (a) Monitor and supervise the work.
- (b) Test and examine any materials to be used in the works
- (c) Check workmanship of the items executed.



- (d) Ensure correct measurement of BOQ
- (e) Prepare & issue certificate of payment and recommend for payment to Client.
- (f) Order variation of quantities, items etc.
- (g) Recommend extension of time limit.
- (h) Record extra item of the work
- (i) Check the rate analysis of extra Items.
- (j) Ensure complete compliance with the drawings, technical specification and various requirement of contract Documents.
- (k) Recommend/ Issue amendments to design & drawings of DDPRC with their recommendation if essential during construction as per site requirement.

## 9. **Contractor's General Responsibilities**

### (a) Execution of works:

The Contractor shall, subject to the provisions of the Contract, and with due care and diligence, execute and complete the Works & remedy any defects therein in accordance with the Contract. The Contractor shall provide all labour, including the supervision thereof, materials. Constructional Plant and Machineries and all other things, whether of a temporary or permanent nature, required in and for such execution, completion, maintenance and remedying of any defects, so far as the necessity for providing the same is specified in or is reasonably to be inferred from the Contract.

If the contractor finds any discrepancy in the drawings or between the drawings, bill of quantities and specifications, he shall immediately and in writing refer the same to the HLL/MOH&FW who shall decide which of them is to be followed

The successful contractor is bound to carry out any items of work necessary for the completion of the job even though such items are not included in the bill of quantities and rates instructions in respect of such additional items and their quantities will be issued in writing by the HLL/MOH&FW.

The Contractor must bear in mind that all the work shall be carried out strictly in accordance with the specifications as given in these documents and also in compliance of the requirements of the local public authorities and to the requirements, satisfaction, and direction of the HLL/MOH&FW and no deviation of any account will be permitted.

The contractor shall have to use materials from the makes / manufacturers specified in the list of materials of approved brand and/or manufacture contained in the contract documents and as approved by HLL after due consent by Client. Wherever different pattern/ Design/ Quality of materials with same specification/ make as specified in the contract, is available in the market, Project Consultant in consultation with Engineer-in-

Charge will approve the pattern/ Design/ Quality of the material/ item which shall be final and binding on the contractor.

Project Consultant is empowered to cancel an approval of material if subsequently it is found that approved material once brought at site and tested does not meet the requirement as specified in the contract. In such case Project Consultant will accord approval of alternate material in consultation with Engineer-in-Charge.

(b) Adequacy, stability and safety:

The Contractor shall take full responsibility for the adequacy, stability and safety of all site operations and methods of construction & shall bring to the notice of HLL/MOH&FW for their notice / approval.

(c) Temporary works and arrangements:

The Contractor shall furnish to the HLL full particulars, drawings, etc. of all temporary works necessary for the execution of the works and shall allow sufficient time for HLL/MOH&FW to consider the same. The HLL/MOH&FW reserve the right to comment on the Contractor's proposals if they consider that modifications should be made. The Contractor shall be solely responsible for the stability and safety of all temporary works including obtaining statutory approvals and payment of statutory fees, if any. The HLL/MOH&FW will indicate the site(s) for such temporary works and the Contractor will have to restrict his requirements to the same. Should it be necessary to shift the temporary works to some other allotted place during the execution of the works, the Contractor shall do so, when informed by the HLL/MOH&FW, at his own cost and without delay or demur. Such shifting of temporary works may be in part or in full.

(d) Initial and Final Clearance of site for temporary works:

The Contractor shall be responsible for the clearance of the site of all scrub, debris, rubbish, etc. to be removed off site to a location to be provided by the contractor and approved by the HLL/MOH&FW. However, no tree shall be removed without the prior permission of the HLL/MOH&FW. The structures, services and works required to be demolished and removed shall also be removed off site to a location as mentioned above. The Contractor shall obtain necessary permissions and approvals from the local authorities for such disposals. The demolition shall include digging, excavating and removal of substructures, foundations and buried works. The cost of all this shall be borne by the Contractor.

The above is applicable for all site offices, labour camps, and godowns etc., which are not required after the works are fully completed.

(e) Storage, Cleaning and Dewatering

The Contractor shall at all the times during construction keep the Site clean and free from all debris and unwanted materials on a daily basis as per instructions of the HLL/MOH&FW.

Storage of materials shall be in an organized manner and in proper compartments as directed by Project Consultant. Storage on suspended floors shall not be permitted unless specifically approved in writing by the HLL/MOH&FW for specific materials in specific locations and in approved manner. HLL/MOH&FW shall be furnished with load details, if requested, before seeking approval for storage.

Regular cleaning operations shall be undertaken to remove all dust, debris, waste materials etc. A cleaning schedule shall be maintained.

Contractor shall make his own arrangement for storage of those materials, which can be accommodated at site. Contractor shall be fully responsible for safe custody of the same. Materials shall be considered as “Delivered at Site” only after the physical presence of materials at site are verified by the HLL/MOH&FW. Stores elsewhere shall not be eligible for being considered as “Delivered at Site.”

Contractor shall be responsible to keep entire site free from water due to water coming from any source at any level and shall protect all materials and works from being damaged by the water from any source. Contractor shall make proper arrangements for drainage prior to use of water for curing, testing, cleaning etc.

Any expenditure incurred by the Contractor in fulfillment of his obligations under this sub-clause shall be deemed to have been included in the Contract Sum.

(f) Coordination of builders work required for services and Installation of equipments:

The Contractor shall co-ordinate the requirements for holes, fixings and builders work, for internal and external services installations in accordance with the requirements of the relevant drawings, which shall be made available to Contractor by the HLL/MOH&FW.

The Contractor's attention is also drawn to the fact that all holes chases, etc. shall be left in the building work as it proceeds and not cut-out subsequently except in so far as may be necessary due to subsequent authorized instructions. The Contractor shall therefore obtain necessary builders work details in such order and in such time as to enable them to be checked and approved by the HLL/MOH&FW not less than two weeks before the actual construction is planned to take place.

## **10. Watching & Lighting**

The Contractor shall throughout the execution and completion of the Works and the remedying of the site and the Works and the remedying of any defects therein have full regard for the safety of all persons entitled to be on the site and keep the site and the Works in an orderly state appropriate to the avoidance of danger to such persons and in connection with the Works provide and maintain at his own cost all lights, guards, fencing and watching when and where necessary or required by the HLL/MOH&FW, or by any duly constituted authority, for the execution and for the protection of the Work, and/or for the safety and convenience of the public or others and take all reasonable steps to protect the environment on and off the site and to avoid damage or nuisance to person or property of the public or others resulting from pollution, noise and other causes as a consequence of his methods of operation.

## **11. Care of Works**

From the commencement to the certified completion of the whole of works, the contractor shall take full responsibility for the care thereof and of all temporary works and in case any damage loss or injury shall happen to the works or to any part thereof or to any temporary works from any cause whatsoever save and except the expected risks as defined in sub-clauses of Clause 12.

The contractor shall at his own cost repair and make good the same so that on completion, the works shall be in good order and condition and conformity to every respect with the requirements of the contract and HLL/MOH&FW's instructions. The contractor shall also be liable for any damage to the works occasioned by him including his subcontractors in the course of any operations carried out by him for the purpose of completing any outstanding work and complying with his obligations under clause 32 hereof. The contractor shall indemnify the Employer from all risks on this account.

## **12. Expected Risks & Force Majeure**

### **(a) Expected Risks**

The "expected risks" are war, hostilities (whether war declared or not), invasion, act of foreign enemies, rebellion, revolution, insurrection or military or usurped power, civil war, or (unless solely restricted to the Contractor or of his sub-Contractors and arising from the conduct of, their workmen) riot, commotion or disorder or radiation or contamination by radio-activity and other hazardous properties of any explosive, nuclear fuel or from any nuclear waste from the combustion of nuclear fuel, radio active toxic explosive, nuclear assembly or nuclear component thereof, pressure waves caused by aircraft or other aerial devices traveling at sonic or supersonic speeds, or any such operation of the forces of nature as an experienced contractor could not foresee, or reasonably make provision for on insure against all of which are herein collectively referred to as "the expected risk"

### **(b) Force Majeure**

- i) Any failure or delay in the performance by either party hereto of its obligations under his Contract shall not constitute a breach thereof or give rise to any claims for damages if, and to the extent that it is caused by occurrences beyond the control of the party affected, namely, acts of God, floods, explosions, wars, riots, storms, earthquakes, insurrection, epidemic or other natural disasters. The party so affected shall continue to take all actions reasonably within its power to comply as far as possible with its obligations under this Contract. The affected party shall promptly notify the other party after the occurrence of the relevant event and shall use every reasonable effort to minimize the effects of such event and act in all good faith with due care and diligence.
- ii) In the event of the effect of force majeure continuing beyond the period of One hundred and eighty (180) days, the parties shall mutually decide whether or not to terminate this Contract. In the event of termination of contract the contractor shall be paid for the work done and which has been accepted and certified by the HLL/MOH&FW and shall not assert any additional claims against the Client.

### 13. **Contractor's Superintendence**

- (a) The contractor shall be solely responsible for the means, methods, techniques sequence and procedure of construction. The Contractor shall be responsible to see the completed work complies accurately with the Contract Document.

The Contractor shall give or provide all necessary superintendence during the execution of the Works.

- (b) **Contractor's Senior Representative for Execution & Coordination of Works**

The Contractor shall have on site at all times during working hours throughout the course of the Contract or at least one Competent senior representative who shall be empowered to make decisions binding on the Contractor in respect of all matters likely to arise in connection with the execution & coordination of the works at the site and shall keep the HLL/MOH&FW informed at all times about the name and designation of such representative. Contractor's Senior Representative shall have the power to take joint measurement and sign the measurement books / bills. Any direction, explanations, instructions or notices given by the HLL/MOH&FW to such representative shall be held to be given to the Contractor. In case of absence of Senior Representative from the site other alternative representative must be available at site with same powers.

A list of all technical and key personal staffs must be submitted to the HLL with their area of work / responsibility with verified signature and the link persons to receive the instruction at site (in case the main person was not found at site) during the inspection by representative of client and / or HLL. If any staff of contractor was found not sufficient suitable capability to execute the assigned work for the project must be replaced by the contractor.

- (c) **Contractor's Employees**

The Contractor shall provide and employ, after approval from the HLL/MOH&FW on the site in connection with the execution, completion of works and remedying any defects therein all Engineering staff / technical assistants are qualified, skilled and experienced in their respective trades, foremen and leading hands as are component to give proper supervision, ensuring quality & output to the work they are required to supervise, and also such skilled, semi-skilled and unskilled labour as are necessary for the proper and timely execution, completion of work and remedying and defects in the works. No child labour shall be employed on the work. All the skilled semi-skilled and unskilled labour shall work under the sole guidance of the contractor's senior representative.

- (d) **Removal of Contractor's Employees**

The Contractor shall on the direction of the Engineer-in-Charge immediately dismiss from the works any person employed thereon by him who may, in the opinion of the Engineer-in-Charge be incompetent or misconduct himself and such person shall not be again employed on the works without the permission of the HLL/MOH&FW.

(e) Unauthorized Persons

No unauthorized persons are allowed on the site. The Contractor shall instruct all such persons to keep out and shall take steps to prevent trespassing. However the contractor will make sure to provide free access at any time for HLL/MOH&FW to the site and other working places.

**14. Compliance with Statutes, Regulations, Etc.**

The contractor shall conform to the provisions of any statute, ordinance, law, act of the legislature relating to the works, and to the regulations and by-laws of any local or other duly constituted authority and of any water, electric supply and other companies and/or authorities with whose systems the structure is proposed to be connected. The Contractor shall keep the Client and HLL indemnified against all fines or penalties or liability of every kind for breach of any such statutory ordinance, law act of the legislation, regulations, and byelaws as aforesaid.

The contractor shall before making any variations from the drawings or specifications that may be necessitated by so regulations give to the HLL/MOH&FW written notice, specifying the variation proposed to be made and the reasons for making it and apply for instructions thereon. The contractor will not execute any work without written permission from the HLL/MOH&FW.

The contractor shall bring to the attention of the HLL/MOH&FW all notices required for execution by the said acts, regulations or bye-laws to be given to any authority and pay to such authority, or to any public office all fees that may be properly chargeable in respect of the works, and lodge the receipts with the HLL/MOH&FW.

**15. Setting out**

The contractor shall be responsible for the true and proper setting-out of the Works in relation to original points, lines and levels or reference issued by HLL/MOH&FW in drawing or in writing and for the correctness, subject as above mentioned, of the position, levels, dimensions and alignment of all parts of works and for the provision of all necessary instruments, appliances and labour in connection therewith. If, at any time during the progress of the works, and during defects liability period, any error shall appear or arise in the position, levels, dimensions or alignment of any part of the Works, the Contractor, on being required to do by the HLL/MOH&FW or his authorised representative shall at his own cost, rectify such error to the satisfaction of the HLL/MOH&FW. The checking of any setting out or of any line or level by the HLL/MOH&FW shall not in any way relieve the Contractor of his responsibility for the correctness thereof. The Contractor shall carefully protect and preserve the benchmarks; sight-rails, pegs and other things used in setting-out the Works. Any rectification works required should be done by the Contractor at his own cost.

**16. Quality of Materials, Workmanship and Test**

- (a) All materials and workmanship shall be the best of the respective kinds described in the Contract and in accordance with the HLL/MOH&FW's instructions and shall be subjected from time to time to such tests as the HLL/MOH&FW may direct at the place of manufacture or fabrication or on the Site or at as per the list of testing laboratory approved by HLL/MOH&FW. The source of supply and / or manufacturing within/ out site India may be inspected by the Client / any representative as nominated by the client. The expenditure on this account is deemed to be included in the rate quoted.

The contractor shall upon the instruction of the HLL/MOH&FW's representative furnish him with documentation to prove that the materials & goods comply with the requirements of contract and for requirement stated above. The HLL/MOH&FW may issue instruction in regard to removal of material from site or any work, if these are not in accordance with the contract. The contractor shall provide such assistance instruments, machinery, labour and materials as are normally required for examining, measuring, sampling and testing and material or part of work before incorporation in the works for testing as may be selected and required by the HLL/MOH&FW.

Client may carry out Third Party Quality Assurance/Audit by an independent agency/ individual/firm/institute at any time. The agency will be permitted and offered all support related to site inspection by the contractor. Suggestions therein will be carried out without any extra cost.

(b) Samples

- i) All samples of adequate numbers, sizes, shades & pattern as per specification shall be supplied by the contractor without any extra charge. Contractor shall submit Samples to the HLL/MOH&FW for approval. If certain items proposed to be used are of such nature that samples cannot be presented or prepared at the site, detailed literature / test certificate of the same shall be provided for such items to the satisfaction of the HLL/MOH&FW. Each Sample will be identified clearly as to material, Supplier, pertinent data such as catalogue numbers and the use for which intended and otherwise as HLL/MOH&FW may require to review the submittals for the limited purposes required by paragraph (d) below. The numbers of each Sample to be submitted will be as specified in the Specifications, or as shall be specified by the HLL/MOH&FW. The approved samples will be maintained till the end of warranty period / defect liability period.
- ii) Submittal Procedures
- (a) Before submitting each Sample, Contractor shall have determined and verified all materials with respect to intended use, fabrication, shipping, handling, storage, assembling and installation pertaining to the performance of the Work and All information relative to Contractor's sole responsibilities in respect of means, methods, techniques, sequences and procedures of construction and safety precautions and programmes incident thereto.

- (b) Each submittal will bear a specific written indication that Contractor has satisfied Contractor's obligation under the Contract Documents with respect to Contractor's review and approval of that submittal.
- (c) At the time of each submission, contractor shall give HLL/MOH&FW specific written notice of such variations if any that the sample submitted may have from the requirements of the contract document, such notice to be separate from the submittal and in addition shall cause a specific notation to be made on each sample submitted for review and approval of each such variation
  - iii) Review and Approval: Sample shall be reviewed and approved only to determine if the items covered by the submittals will, after installation or incorporation in the work, conform to the information given in the contract documents and be compatible with the design concept of the completed project functioning as a whole as indicated by the contract documents, drawings.
  - iv) Review and approval will not extend to means, methods, techniques, sequences or procedures of construction. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions. Contractor shall make corrections required by HLL/MOH&FW and shall submit as required new Samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for and by HLL/MOH&FW on previous submittals.
  - v) Above referred review and approval Samples shall not relieve Contractor from responsibility for any variation from the requirements of the Contract Document unless Contractor has in writing called HLL/MOH&FW attention to each such variation at the time of submission as specified above and received written approval of each such variation by specific written notation thereof incorporated in or accompanying the Sample approval; nor will any approval by HLL/MOH&FW relieve Contractor from responsibility for complying with the requirements of contract.
  - vi) Only when the samples are approved in writing by the Engineer-in-charge, the contractor shall proceed with the procurement and installation of the particular material / equipment. The approved samples shall be signed by the Engineer-in-charge for identification and shall be kept on record at site office until the completion and acceptance of the work and shall be available at the site for inspection / comparison at any time. The contractor shall keep with him a duplicate of such samples to enable him to process the matter.
  - vii) For items of works where the samples are to be made at the site, the same procedure shall be followed. All such samples shall be prepared at a place where it can be left undisturbed until the completion of the project.
  - viii) The HLL/MOH&FW shall communicate his comments / approval to the Contractor for the samples at his earliest convenience. Any delay that might occur in approving of the samples for reasons of its not meeting with the specifications or other discrepancies, inadequacy in furnishing samples of best qualities from various manufacturers and such other aspects causing delay on the approval of the materials / equipment's etc.



shall be to the account of the contractor. In this respect the decision of the HLL/MOH&FW shall be the final.

- ix) On delivery of the supplies of materials / equipments for permanent works at the site, the contractor shall specifically arrange to get the supply inspected by the Engineer-in-charge and compared with the approved sample and his specific obtained before using the same in the work.
- x) Approving authority of sample: Sample of items costing up to Rupees five lacs will be approved by HLL and incase the total cost of items is more than Rupees five lacs , HLL will recommend and final approval will rest with client. This approval will not be applicable to items for building materials, RCC, reinforcement, structural items HLL will be competent authority.

(c) Cost of Tests

The cost of making any test shall be borne by the Contractor as intended by or provided for in the Contract or as found necessary by the HLL/MOH&FW for ascertaining whether the quality of materials intended to be used by the Contractor in the Works is acceptable, whether any finished or partially finished work is appropriate for the purposes which it was intended to fulfill.

(d) Standards and codes

The Contractor, if required, shall at his cost provide one set of approved standards and codes to which the proposed materials, items and works to be executed shall conform. Such a set shall be handed over to client and HLL/MOH&FW for ready reference. All materials, items and works, when submitted for approval shall have reference of Tender Specifications and drawings and of clauses of relevant standard codes for acceptance criteria.

(e) Testing facilities

The Contractor shall, at his own cost, provide testing facilities as per CPWD specifications and IS Codes at site as stipulated in the Contract document or as directed by the HLL/MOH&FW.

In case certain tests are to be carried out in approved/outside laboratory, as stipulated in the contract document / as directed by the HLL/MOH&FW, the Contractor shall bear the entire cost including samples, taking samples, testing, reports etc.

## 17. **Absence of Specifications**

If the specifications do not contain particulars of materials and works which are obviously necessary for the proper completion of the works, and the intention to include, which is inferred, all such materials and works shall be supplied and executed by the Contractor without extra charge. **If the Contractor requires additional information, he shall, in pursuance of Clause 2 hereof, so request in writing well in advance to commencement of the particular work to the HLL/MOH&FW who will issue such detailed information within a reasonable time.**

**18. Obtaining Information's related to Execution of work**

No claim by the contractor for additional payment will be entertained which in consequent upon failure on his part to obtain correct information as to any matter affecting the execution of the works, nor will any misunderstandings or the obtaining of incorrect information or the failure to obtain information relieve him from any risks or from the entire responsibility for the fulfillment of the contract.

**19. Access for Inspection**

Persons nominated by client/ HLL and their respective representatives shall at all reasonable times have free access to work and/ or to the workshops, factories or other places where materials are lying or from which they are being obtained and the Contractor shall extend necessary service to Client and HLL and their representatives every facility necessary for checking measurements, inspection and examination and test of the materials and workmanship.

**20. Examination of Work before covering up**

(a) No part of the works shall be covered up or put out of view without the written approval of the engineer-in-charge and the contractor shall afford full opportunity for the HLL/MOH&FW to examine and measure any work which is about to be covered up or put out of view and to examine foundations before permanent work is placed thereon. The contractor shall give due notice to the engineer-in-charge whenever any such work or foundation is or ready or about to be ready for examination and the HLL/MOH&FW shall, without unreasonable delay, unless he considers it necessary and advises the contractor accordingly, attend for purpose of examining and measuring such work or examining such foundation.

(b) **Uncovering and making openings**

The contractor shall uncover any part or parts of the works or make openings in or through the same as the HLL/MOH&FW may from time to time direct and shall reinstate to make good such part or parts to the satisfaction of the HLL/MOH&FW. No extra payment will be paid for this.

**21. Assignment**

The contractor shall not, without the prior consent of the HLL/MOH&FW assign the Contract or any part thereof, or any benefit or interest therein or there under, otherwise than by:

- A change in favour of the Contractor's bankers of any moneys due or to become due under the Contract, or
- Assignment to the Contractor's insurers (in case where the insurers have discharged the Contractor's loss or liability) of the Contractor's right to obtain relief against any other party liable.

The Contractor shall not sub-contract the whole of the Works. The Contractor shall not subcontract any part of the Works without the prior consent of the HLL/MOH&FW, except where otherwise provided by the Contract. Any such consent shall not relieve the Contractor from any liability or obligation under the Contract and he shall be responsible for the acts, defaults and neglects of any Subcontractor, his agents, servants or workmen as fully as if they were the acts, defaults or neglects of the Contractor, his agents, servants or workmen. Such Permission may be granted only for the super specialized work etc and the decision of Client shall be final.

## **22. Claims**

The contractor shall send to the HLL/MOH&FW once in a every month an account giving particulars as complete and fully detailed as required of all claims for any additional payments, to which the contractor may consider himself entitled and of all extra or additional / substituted work ordered by the HLL/MOH&FW which he has executed during the preceding month subject of provisions under relevant clauses of contract hereof.

## **23. Variations**

(a) The engineer-in-charge with the prior approval of the Competent Authority in determining revised quantity, form or quality shall make and variation in the form, quality or quantity of the works or any part thereof that may necessary and for that purpose or if for any other reason it shall, in his opinion be desirable, he shall with the prior approval of the Client order the contractor to do and the contractor shall do any of the following:

- i) Increase or decrease the quantity of any work included in the contract
- ii) Omit any such work
- iii) Change the character or quality or kind of any such work
- iv) Change the levels, lines, positions and dimensions of any part of the works.
- v) Execute additional work of any kind necessary for the completion of the works.
- vi) Change any specified sequence or timing of construction of any part of the work.

No such variation shall in any way vitiate or invalidate the contract, but the cost, if any, of all such variations shall be taken in account for payment to the contractor as an addition or adjustment to the amount of the contract sum. Provided that where the issue of instruction to vary the works is necessitated by some default or breach by the contractor or for which he is responsible, any additional cost attributable to such default or breach shall be borne by the contractor.

(b) Orders for variation to be in writing

The contractor shall make no such variations without an order in writing by the engineer-in-charge, provided that no order in writing shall be required for increase up to 02% or decrease in the quantity of any work where such increase or decrease is not the result of an order given under this Clause, but is the result of the quantities exceeding or being less than those stated in the schedule of items.

**24. Valuation of variations (extra / additional / omitted items)****(a) Claims**

The contractor shall send to the HLL/MOH&FW once in every month an account giving particulars as complete and fully detailed as required of all claims for any additional payments, to which the contractor may consider himself entitled and of all extra or additional / substituted work ordered by the HLL/MOH&FW which he has executed during the preceding month subject or provisions under relevant clauses of contract hereof,

**(b) Inspection & Testing during manufacture**

The HLL/MOH&FW shall be entitled during manufacture to inspect, examine and test on the contractor's premises during working hours the materials and workmanship and check the progress of manufacture of all fabrication materials to be supplied under the contract, and if part of the said materials is being manufactured on other premises the contractor shall obtain for the HLL/MOH&FW permission to inspect, examine and test as if the said plant were being manufactured on the contractors premises. Such inspection, examination or testing if made shall not relieve the contractor from any obligation under the contract.

**(c) Dates for Inspection & Testing**

The contractor shall agree with the HLL/MOH&FW the date and the place at which any plant / works will be ready for testing as provided in the contract and unless the HLL/MOH&FW shall attend at the place so named on the date agreed the contractor may proceed with the test in presence of the HLL/MOH&FW or his authorized representative and shall forthwith forward to the HLL/MOH&FW duly certified copies of the test readings. The HLL/MOH&FW shall give the contractor 24 hours notice in writing of his intention to attend the tests.

**(d) Facilities for Testing at Manufacturer's Works**

Where the contract provides for tests on the premises of the contractor or of any sub-contractor, the contractor shall provide such assistance, labour, materials, electricity, fuel, stores, apparatus and instruments as may be requisite and as may be reasonably demanded to carry out such tests efficiently.

**(e) Certificate of Testing**

As and when fabrication materials shall pass the tests referred in this clause, the HLL/MOH&FW shall furnish to the contractor a certificate in writing to that effect.

**(f) Rejection**

If as a result of such inspection, examination or test of the works (other than a Test on Completion) the HLL/MOH&FW shall decide that such material is defective or not in accordance with the contract he shall notify the contractor accordingly stating in writing his objection and reasons thereof. The contractor shall with all speed make good the defect or ensures that the

material complies with the Contract. Thereafter, if required by the HLL/MOH&FW, the tests shall be repeated under the same terms and conditions till satisfactory results are made available.

(g) Delivery of Materials and Equipment

Unless the HLL/MOH&FW shall otherwise direct, no material other than the material required for bona fide use in the work, shall be brought to the site

The contractor shall be responsible for the reception on site of all materials and contractor's equipment brought at site for the purposes of the contract.

(h) Inspection & Testing and Re-inspection & Retesting

All deficiencies revealed by testing and inspection shall be rectified by the contractor at his own expense and to the satisfaction and approval of the HLL/MOH&FW. Rectified components shall be subject to re-testing and re-inspection.

(i) Inspection Reports

The contractor shall provide the HLL/MOH&FW with five copies of reports of all inspection and tests.

## 25. Virtual Completion Certificate

When the whole of the Works have been substantially and virtually completed and have satisfactorily passed any final test that may be prescribed by the Contract:-

- (a) The Contractor shall give a notice to that effect to the HLL/MOH&FW accompanied by an undertaking to finish any outstanding work during the Defects Liability Period. Such notice and undertaking shall be in writing and shall be deemed to be a request by the Contractor.
- (b) The HLL/MOH&FW shall review whether the works are completed in such a condition so as to be put to its proper or other intended final use and / or occupied without any short comings and no major or minor items of works are remaining which in the opinion of the HLL/MOH&FW will cause undue difficulties in satisfactory use/ occupation of the Works

## 26. Defect after completion

(a) **General**

Any defect, shrinkage, settlement or other faults which appear within the "Defects Liability Period" arising, in the opinion of the Client, from materials or workmanship not in accordance with the contract, the contractor shall upon the direction in writing of the Client/ Authorized representative of the owner of the Institute, and within such reasonable time as shall be specified therein, be amended and made good by the contractor, at his own cost and in case of default the Client may employ and pay other persons to amend and make good such defects, shrinkage, settlements or other faults and all damages, loss and expenses consequent thereon or incidental thereto shall be made good and borne by the contractor and such damage, loss and expenses shall

be recoverable from the bills due or may be deducted from any money due to that may become due to the contractor, or the may in lieu of such amending and making good by the contractor deduct from any monies due to the contractor, a sum, to be determined by the Client. If no amount is available with the Client, the Client may recover from the dues of another government department

(b) Execution of work of repair etc.

Any defects, shrinkage, settlement or other faults which may appear or be noticed within the defect liability period, and arising in the opinion of the Client from materials or workmanship not having in accordance with the contract, shall upon the direction in writing of the Clients representation and within such reasonable time as shall be specified therein and without any delay, be amended and made good or replaced by the contractor at his own cost.

(c) Cost of Execution of Work of Repair, Etc.

All such works shall be carried out by the Contractor at his own expense if the necessity thereof shall, in the opinion of the Client, be due to the use of materials or workmanship not in accordance with the Contract, or due to neglect or failure on the part of the Contractor to comply with any obligation, expressed or implied, on the Contractor's part under the Contract.

(d) Contractor's personnel to be at site

During the defects liability period the contractor shall retain at least one of his authorized representative at site along with required tradesmen.

## **27. Approval and acceptance**

(a) Provisional Acceptance

The work shall be deemed to have been provisionally accepted after fulfillment of all the following by the Contractor.

- i) Submitting As-Built Drawings, Catalogues, Brochures, and Data Sheets, manuals for proprietary items in the form as directed by HLL/MOH&FW to Engineer in Charge
- ii) Obtaining Certificate of Completion from the HLL/MOH&FW.
- iii) Obtaining approvals from the local authorities as required for occupation and use of the works and handing over such certificates to the Client if such items included in the duties or responsibilities of the Contractor by the contract. Contractor is required to take approval from respective authorities for his own work. However, for building permission etc. approval from local authorities will be done by DDPRC.

(b) **Certificate of Final Completion**

The contract shall not be considered as completed until a Certificate of Final Completion shall have been issued by the Client/ HLL stating that the Works have been completed to their satisfaction and remedying / rectifying of defects have been satisfactorily performed.

The Client shall give the Certificate for Final Completion:

- Twenty-eight days after the expiration of the Defects Liability Period OR
- If different Defect Liability Periods shall become applicable to different sections or parts of the Works, the expiration of the latest of such period OR
- As soon thereafter as any works ordered during such period shall have been completed to the satisfaction of the Client.

Provided always that the issue of the Certificate of Final Completion shall be a condition precedent to payment or return to the Contractor the security deposit and / or Performance security in accordance with the conditions set out in the contract.

**28. Works by Other Agencies**

The Client and HLL/MOH&FW reserves the right to use premises and any portion of the site for the execution of any work not included in this contract which it may desire to have carried out by other persons simultaneously, and the contractor shall allow the reasonable facilities for the execution of such work, but shall not be required to provide any plant or material for the execution of such work except by special arrangement with the employer. Such work shall be carried out in such manner as not to impede the progress of the works included in the contract and the contractor shall not be responsible for any damage or delay which may happen to or occasioned by such work.

**29. Insurance Policies**

- (a) Contractor shall may take Contractor's All Risk Policy and Third Party Insurance or other insurance policies from a first class Insurance Company in the joint name of the Contractor and CLIENT and keep it valid against all loss or damages to the Works, Materials, Equipment, Persons and Properties from whatever cause arising for which he is responsible under the terms of the Contract, other than the expected risks, and in such manner that the Client and Contractor are covered for the period as stipulated for entire duration including the Defects Liability Period and for any loss or damage occasioned by the Contractor in the course of any operations carried out by him for the purpose of complying with the obligations.
- (b) In the event of the Insurance Policies are taken and kept valid by the contractor, whenever claims need to be made for any matter or thing in respect of the insurance covers under the Insurance Policies, it shall be the responsibility of the Contractor to lodge such claims and to follow up and obtain the payments for the claims from the Insurance Companies.

Should the Client suffers any losses and / or damages in connection with the works and the Contractor is unable or unwilling to get such losses and/or damages recompensed by the insurance companies, the Client shall recover the amounts in respect of such losses and/or damages from the Contractor by way of deductions made from any money that may be payable or that may become payable to the Contractor.

- (c) Irrespective of whether the Insurance Policies referred under sub-clause above are taken by the Contractor or not and whether the Policies are kept valid or not notwithstanding anything stated in the sub-clause as above of this clause, the Contractor shall indemnify the Client from all the compensations and claims that may arise due to loss and damages to the works, materials, equipment, persons and properties on account of Contractor's operations at site during the period and also Defects Liability period and the Contractor shall be responsible, liable and bound to the Client to compensate or make good or replace the loss or damage arising out of any whatsoever as directed by the Client. Payments of the contractor's bills etc shall be made on verifying the validity of the insurances & the payments of the premiums has to be borne by the contractor.

### **30. Dues not paid by the Contractor**

The contractor shall pay all dues or fees to Statutory authorities and Electric and Water supply authorities etc. within due period and indemnify the Client and the HLL/MOH&FW from any claims or compensations or penalties or damages arising out of non-payment of any such dues or fees. However, in case some dues or fees are not paid by him / and or claims for compensations or penalties etc. are raised by the Statutory authorities, the Client may deposit the required amount for any or all of the above and recover or deduct the same from any money payable to the contractor by the Client or any other means available to the Client such as bank guarantee.

### **31. Billing & Certification**

Contractor shall submit monthly running bills in approved format as per CPWD for executed works and materials for which secured advance is desired along with required details and measurements as directed by the HLL/MOH&FW. The Contractor shall submit Monthly Progress Report in triplicate in approved format and containing required number of indexed colored progress photographs. Failure to submit reports may result in holding up of Payment Certificate. The bill shall consist of computerized measurements/abstract of quantities/memorandum of payment etc as directed by HLL/MOH&FW as well as hard copy & shall be consisting of all the documents with index.

The bills along with the Measurement sheets shall be checked/ verified by the HLL/MOH&FW.

Certificate of Payment shall be prepared and certified by the HLL/MOH&FW on the basis of the checked / verified bills and Measurement sheets. The HLL/MOH&FW shall send the certificate of payment recommending for payment to the Client.

Only the quantities of work executed, which correspond to the full description stated in the Bills of Quantities, shall be considered for payment. No part –rated items of work will be considered for payment in the bills.



**32. Terms of Payment**

Payment for works:-

The contractor shall be paid monthly on the submission by the HLL/MOH&FW and after the approval of Engineer-in-charge, such sum or price of the works executed up to the end of the previous month after adjusting payments made in earlier bills and recovery of all advances and retention money and recoveries as per the Contract. No interim payment is permitted.

**33. Urgent Repairs**

If, by reason of any accident, or failure, or other event occurring to or in connection with the works, or any part thereof, either during the execution of the works, or during period of Defects Liability any remedial or other work or repair, shall, in the opinion of the Client be urgently necessary for the safety of the Works and the Contractor is unable or unwilling at once to do such work or repair, the Client may employ and pay other persons to carry out such work or repair as the case may be and Client may consider necessary. If the work or repair so done by the other agency is the work which, in the opinion of the HLL/MOH&FW the Contractor was liable to do at his own expense under the Contract, all expenses incurred by Other agency in so doing shall be recoverable from the Contractor by the Client, or may be deducted by the Client from any monies due or which may become due to Contractor.

**34. Boreholes & Exploratory Excavation**

If, at any time during the execution of the Works, the HLL/MOH&FW/MOH&FW shall require the Contractor to make boreholes or to carry out exploratory excavation, such requirement shall be ordered in writing and shall be deemed to be an additional ordered under the provisions unless a provisional sum in respect of such anticipated work shall have been included in the schedule of items.

**35. Fossils, Etc.**

All fossils, coins, articles of value or antiquity and structures and other remains or things of geological or archaeological interest discovered on the site of the works shall be the property of the GOVERNMENT.

**36. Plant Temporary Works & Materials****(a) Plant, etc. Exclusive use for the Works**

All Constructional Plant, Temporary Works and materials provided by the Contractor shall, when brought on to the Site, be deemed to be exclusively intended for the execution of the Works and the Contractor shall not remove the same or any part thereof except for the purpose of moving it from one part of the Site to another, without the consent, in writing of the HLL/MOH&FW, which shall not be unreasonably withheld.

**(b) Removal of Plant etc.**

Upon completion of the Works, the Contractor shall remove from the Site all the said Constructional Plant and Temporary Works remaining thereon and any unused materials provided by the Contractor, within 10 days of obtaining the provisional completion certificate.

### **37. Operations and Maintenance Manual**

The Contractor shall also provide and submit to the CLIENT with two copies in a durable plastic case of the operating and Maintenance Instruction Manuals as may be applicable for proprietary items of the works. The arrangement of these manuals shall be as follows:

- SECTION A: Index
- SECTION B: Full set of Indexed Photographs showing all salient features of the Project.
- SECTION C: Description and details of materials, items and fittings and fixtures used for the project along with Catalogues & Addresses of the Suppliers.
- SECTION D: Planned maintenance instruction and dates for order replacements.
- SECTION E: List of recommended Spare parts of consumables.
- SECTION F: List of “As-Built” Drawings (related to Working/Shop drawings)

Until the Record Drawings, prints, transparencies and manuals referred to above have been received and approved by the HLL/MOH&FW and Contract shall not be considered as complete and payment of monies will be withheld until such drawings, etc. have been submitted to and approved by the HLL/MOH&FW and the cost of providing such records including proper submission thereof is deemed to be included in the Contract Sum quoted by the Contractor.

### **1. Reports by Contractor**

- (a) The Contractor shall prepare Weekly Reports of planned and actual progress of work and subsequent week's scheduled work. These will also include material procurement status. These reports shall be submitted to the HLL/MOH&FW & shall be reviewed in Weekly Co-ordination Meetings.
- (b) The Contractor shall submit Monthly Progress Report as per format approved by HLL/MOH&FW along with monthly bills.
- (c) The Contractor as directed by the HLL/MOH&FW shall prepare further Progress Charts and Schedules (vide m s project or primavera software) by qualified planning Engineer & along with the services provided.

Every care has been made to include all the aspects/ terms and condition in these documents. However, during execution, any issue arises, which has not been included in these documents, norms/ rules & regulations/ terms & conditions as prevalent in CPWD shall be followed.

## 2. Miscellaneous

### (a) Monthly Progress Photographs

The Contractor shall arrange at his own cost to maintain a progress record of the works by taking postcard size colour photographs (preferably digitized photographs) minimum 6 Nos. or more per month or fortnight as directed by the HLL/MOH&FW during the constructions stages and after completion and shall supply one set to the CLIENT and one set to the HLL/MOH&FW at no extra cost. These photographs shall also be submitted as part of the contractors R.A. Bills. The Contractor will be required to submit monthly reports on the progress of his work as per the format approved by the HLL/MOH&FW and shall comment on the financial / physical / quantity wise progress made as per the master schedule (vide m s project or primavera software) submitted by contractor & approved by HLL/MOH&FW with the R.A. Bills as well to ensure timely progress of the work as per contract without extra cost.

### (b) Safety Regulations

Contractor shall be fully responsible for the safety of his Employees/Visitors/Contract Labour/Sub-Contractors Labour. The Contractor shall provide first-aid box readily available at site. The Contractor shall provide all safety measures as per labour safety rules applicable & shall provide PPE's without extra cost.

### (c) Labour Laws

The Contractor shall strictly adhere to all labour laws prevailing in the region. The contractor shall make timely payment of wages of his labour and the wages paid to the labour shall be equal to or more than the minimum wage prevailing at the time of payment. The Contractor shall comply with all applicable labour legislation.

### (d) By-Laws of Statutory Authorities

The Contractor and his labour shall not violate municipal/sanitation/health or any other byelaws.

### (e) Tax Deduction at Source

Taxes and surcharge as applicable shall be deducted from the amount paid to the Contractor towards the value of the work done. The amount so deducted at source, shall be deposited into Government Treasury and a certificate thereof shall be issued to the Contractor.

### (f) General Lighting and Securities

The Contractor shall, throughout the execution, completion and remedying of the defects, provide and maintain at his own cost all lights, guards, fencing, warning signs and watching, when and where necessary or recommended by the HLL/MOH&FW or by any

duly constituted authority for the protection, of the works or for the safety and convenience of the public or others.

(g) Definition of “and”, “or”, “and/or”

The terms “and”, “or”, “and/or” used in the context with the description or enumeration of two or more items or components of work or documentation or anything similar shall mean as is relevant and applicable to the text.

(h) Delay in starting the work

No compensation shall be allowed for any delay caused in the starting of the work on account of acquisition of land, encroachment or in the case of clearance of works, on account of any delay in according sanction to estimates in issue of drawings, decisions etc. However, the extension of time shall be granted as per relevant conditions of Contract.

(i) Employment of Scarcity Labour

(j) Technical Examination

The Client shall have the right to cause Audit and Technical Examination of the works and the final bills of the contractor including all supporting vouchers, abstracts, etc. to be made as per payments of the final bill and if as a result of such Audit and Technical Examination the sum is found to have been overpaid in respect of any work done by the contractor under the contract and found not to have been executed, the contractor shall be liable to refund the amount of over payment and it shall be lawful for the CLIENT to recover the same from the security deposit or Performance Security of the contractor or from any dues payable to the contractor. If it is found that the contractor was paid less than what was due to him under the contract in respect of any work executed by him under it, the amount of such under payment shall be duly paid. The work comes under the purview of CVC and as such all orders and instructions are applicable to this work.

In the case of any audit examination and recovery consequent on the same the contractor shall be given an opportunity to explain his case and the decision of the CLIENT shall be final. Payment on this account will be recovered from the contractor.

In the case of Technical Audit, consequent on which there is a recovery from the contractor, recovery should be made with orders of the Accepting officer whose decision shall be final. All action under this clause should be initiated and intimated to the contractor within the period of twelve months from the date of completion.

(k) Site instruction book

For the purpose of quick communication between HLL/MOH&FW and the Contractor or his representative, site instruction book shall be maintained at site as described below:

Any communication, relating the works may be conveyed through records in the site instruction book. Such a communication from HLL/MOH&FW to the Contractor shall be

deemed to have been adequately served in terms of the contract. Such site instruction book shall have machine numbered pages in triplicate and shall be carefully maintained and preserved by the Contractor and shall be made available to HLL/MOH&FW and Client as and when demanded. Any instruction which HLL/MOH&FW may like to issue to the Contractor may be recorded by the HLL/MOH&FW in site instruction book and two copies thereof taken by the HLL/MOH&FW for his record. Also to ensure timely communication of decisions/details the correspondences shall be made through mails and shall be part of the contract.

(l) Signage

With prior approval of the Client, the Contractor shall provide at his own cost, a sign board at directed location of overall size 2 meters by 4 meters indicating name of the project, and a three-D view of the project, as approved by the client. The signboard will be illuminated during night.

(m) Cutting of Trees

Permission of cutting of trees if required will be obtained by Client.

(n) Miscellaneous:-

- (i) The contractor shall provide complete security arrangement for the work site during construction to avoid trespassing.
- (ii) All shuttering material to be used at site will be new/just like new and only ply & steel plate will be allowed to be used as directed by HLL/MOH&FW. Only steel props will be used at site and no wooden balli etc will be permitted.
- (iii) The contractor shall have adequate generators of required capacity as per site requirement as stand by arrangement.
- (iv) The temporary connection for electric line and water line from local authorities shall be taken by the contractor who will bear the expenditures
- (v) Any dispute arising due to typing mistakes/ omissions in the document the decision of the client will be final
- (vi) In case the contractor does not agree with any decision of the HLL/MOH&FW he may express in writing to the Client within 7 days and the decision of Client shall be final and binding on the contractor.
- (vii) Unless otherwise mentioned in the bill of quantities the measurements of works shall be done as per given specifications (as specified in Technical Specification of the Tender) and if the same is not given in the specification, the same shall be measured as per latest relevant BIS codes in force or CPWD Specifications. The quantity of steel reinforcement and the structural steel sections incorporated in the

work shall be measured & paid on the basis of standard coefficients of sections as per BIS Codes of practice.

- (viii) No idling charges or compensation shall be paid for idling of the contractor's labour, staff or P&M etc. on any ground or due to any reason whatsoever.
- (ix) Contractor shall mobilize and employ sufficient resources for completion of all the works as indicated in the agreed BAR CHART / Network. No additional payment will be made to the contractor for any multiple shift work or other incentive methods contemplated by him in his work schedule even though the time schedule is approved by HLL/MOH&FW.
- (x) Steel conforming to BIS specifications (latest edition) shall be procured from as per approved list by the client by the contractor from dealers/sub dealers/distributors of approved manufacturers. The manufacturer has to give a certificate that the material supplied is not a re-rolled product. Relevant vouchers & test certificates will be produced by the contractor in original & has to be defaced. Re-rolled sections will not be allowed. Reinforcement steel, structural steel shall be stored and stacked in such manner so as to facilitate easy identification, removal etc. The contractor shall take proper care to prevent direct contact between the steel and the ground/ water for which he shall provide necessary arrangement at his own cost including ensuring proper drainage of area to prevent water logging as per directions of the HLL/MOH&FW. Steel required to be kept as storage shall also be protected, by applying a coat of neat cement slurry over the bars for which no extra payment shall be made. Test certificates for each consignment of steel shall be furnished and tests to be got carried out from the authorized laboratory as per the directions of HLL/MOH&FW, before incorporating the materials in the work.
- (xi) Pre-construction treatment shall be carried out in co-ordination with the building work and shall be executed in such a manner that the civil works are not hampered or delayed by the anti-termite treatment. The treatment shall be carried out as detailed in BIS: 6313 (Part-II) latest revision. The waterproof treatment shall be of type and specifications as given in the schedule of quantities. The treatment against water-proofing of basement, roofs, water retaining areas and termite infestation shall be and remain fully effective for a period of not less than 10(Ten) years to be reckoned from the date of expiring of the Defect Liability period, prescribed in the contract. At any time during the said guarantee period if the client or his representative finds any defects in the said treatment or any evidence of re-infestation, dampness, leakage in any part of buildings or structure and notifies the contractor of the same, the contractor shall be liable to rectify the defect or give re-treatment and shall commence the work or such rectification or re-treatment within seven days from the date of issue of such letter to him. If the contractor fails to commence such work within the stipulated period, the client or his representative may get the same done by another agency at the Contractor's cost and risk and the decision of the Engineer -in- Charge and HLL/MOH&FW for the cost payable by the contractor shall be final and binding upon him. Re-treatment if required shall be attended to and carried out by the Contractor within seven days of the notice from the client or his representative. Water proofing and anti-termite treatment

shall be got done through approved / specialized agencies only with prior approval of the HLL/MOH&FW / client or his representative. During the execution of work, if any damage shall occur to the treatment already done, either due to rain or any other circumstances, the same shall be rectified and made good to the entire satisfaction of the client or his representative by the contractor at his costs and risks.

- (xii) Marine plywood only or steel plates of minimum thickness as approved by HLL/MOH&FW shall be used for formwork. The shuttering plates shall be cleaned and oiled after every repetition and shall be used only after obtaining approval of HLL/MOH&FW's Engineers at site. The number of repetitions allowed for plywood and steel shuttering shall be at the discretion of HLL/MOH&FW depending upon the condition of shuttering surface after each use and the decision of Engineer-in- Charge and HLL/MOH&FW in this regard shall be final and binding on the contractor. No claim whatsoever on this account shall be admissible.
- (xiii) RECORDS OF CONSUMPTION OF CEMENT & STEEL - For the purpose of keeping a record of cement and steel received at site and consumed in works, the contractor shall maintain a properly bound register in the form approved by the HLL/MOH&FW, showing columns like quantity received and used in work and balance in hand etc. The contractor's representative shall sign this register daily and HLL/MOH&FW's representative.
- (xiv) The register of cement & steel shall be kept at site in the safe custody of HLL/MOH&FW during progress of the work. This provision will not, however, absolve the contractor from the quality of the final product.
- (xv) In case cement or steel quantity consumed is lesser as compared to the theoretical requirement of the same as per CPWD (as the case may be) specifications/ norms, the work will be devalued and/ or a penal rate (i.e. double the rate at which cement/ steel purchased last) recovery for lesser consumption of cement/ steel shall be made in the item rates of the work done subject to the condition that the tests results fall within the acceptable criteria as per CPWD (as the case may be) specifications otherwise the work shall have to be dismantled and redone by the contractor at no extra cost. In case of cement, if actual consumption is less than 98% of the theoretical consumption, a recovery shall be affected from the contractor's dues at the penal rate for the actual quantity which is lower than 98% of theoretical consumption.
- (xvi) To ensure that the services under the scope of this contract are in accordance with the specifications, the Contractor shall adopt Quality Assurance Programme to control such activities at the necessary points.
- (xvii) The contractor shall co-operate with other agencies working in the same project, compare plans, specifications and the time schedules and so arrange his work that there will be no interference. The Contractor shall forward to the HLL/MOH&FW all correspondences and drawings exchanged. Failure to check plans for conditions

will render the Contractor responsible for bearing the cost of any subsequent change found necessary or damages done.

However, the Contractor shall afford necessary facilities to execute the work simultaneously with other agencies executing the works for the same project. The Client shall entertain no claim on this account.

(xviii) Role of DDPR Consultant

(b) Obtain permits, licenses and approvals from statutory bodies for commencement of work.

**(c) Construction Phase**

- Design DPR Consultant will initiate activities that will be necessary in the performance of the services in accordance with the Master Plan. In case any change is required in design etc it will be made. Any clarification required by clients/ Project Consultant/ contractor on design/drawing matters will also be attended. No additional cost on this account will be admissible.
- Design and DPR Consultant shall maintain adequate professional staff that will carry out visit of the works and render advice to client for establishment of the project as and when required.

**(d) Post – Construction Phase**

- Conduct inspection after confirmation from the client that the project is practically complete.
- Prepare a snag list; advise the Implementation Agency(s) to make good the defects within a specific period
- Upon completion of the remedial works, conduct a final inspection together with the Client and his representatives.

**(e) Final Acceptance**

- After all defective works are made good; certify to the effect that the project is completed in conformity with the provisions of contract documents
- Issue Certificate of Final Completion
- Submit the required documents to the statutory authorities after completion and obtain NOC for commissioning the Institute.

**(f) As-Built Drawings**

- Review AS-BUILT drawings prepared by the Contractor prior to final drafting. These shall be incorporated in the original drawings.



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**LIST OF APPROVED MAKES**

<b><u>CIVIL WORKS</u></b>		
<b>Note:- Sub-Heads are given as CPWD DSR 2007</b>		
<b>Sl No.</b>	<b>Material</b>	<b>Makes/Manufacturer</b>
<b>Concrete Work / Reinforced Concrete work</b>		
<b>1.</b>	Concrete Additive	Sika /STP/CICO/Pidilite / Fosroc / Fairmate /MC Bauchemie / Choksey.
<b>Wood and PVC Work</b>		
<b>2.</b>	Classic Dark Blue Heat Reflective Glass	Glaverbel/Asahi India Safety/ Saint Gobain/ Glavermas
<b>3.</b>	Adhesive for Wood Work	Fevicol/Vamicol/Dunlop
<b>4.</b>	Curtain Rod/Drapery Rod	Levolar / Mac Décor
<b>5.</b>	Dash Fasteners	Hilti/ Fischer/ Bosch
<b>6.</b>	Door Locks	Godrej/ Harrison/ Link
<b>7.</b>	Doors & Windows fixtures/ Fitting	Everlite / Argent/ Classic/ Crown/ Earl Bihari
<b>8.</b>	Extruded Polystyrene Board	Styrofoam by DOW Chemicals/ Insuboard by Supreme Industries
<b>9.</b>	Fire Doors	Navair/ Shakti - met Dor/ Godrej
<b>10.</b>	Flush Door Shutters	Duro/Greenply/Century/
<b>11.</b>	Hardware	Arkay/ Godrej/ D-Line/ Carl-F
<b>12.</b>	Laminates	Duro/ Century/ Greenlam/ Formica/ Decolam/ Euro,Sungolss, Sunmica, Backelite hylem
<b>13.</b>	Plywood/ Blockboard/ Ply board	Duro/ Greenply/Century/ Kitply/ Greenlam/ Novapan/ Marrino/ Greenply/ Euro/National/ Anchor
<b>14.</b>	Pre- Laminated Particle Board	Anchor/ Novapan/ Century/ Green Ply/Archidply/ Bhutan Board
<b>15.</b>	PVC continuous fillet for periphery packing of glazings/ Structural/ Glazings	Roop/ Anand/ Forex Plastic/ Nagalia/ Trading Company
<b>16.</b>	Stainless Steel bolts, Washers and Nuts	Kundan / Puja / AtulI
<b>17.</b>	Stainless steel D- handles	D- line / Giesse/ Dorma
<b>18.</b>	Stainless Steel Friction Stay	Earl Bihari/ Securistyle/ EBCO
<b>19.</b>	Stainless Steel Pressure Plate Screws	Kundan/ Puja/ Atul
<b>20.</b>	Stainless Steel Screw for Fabrication and fixing of Windows	Kundan/ Puja/ Atul
<b>21.</b>	Veneered Particle Board	Same as item No. 17 above
<b>Steel Work</b>		
<b>22.</b>	M.S. Pipe	Jindal/ Hisar/ Prakash- Surya/ BST/ Kalinga/ TATA / TT Swastik

23.	Pressed Steel Doors Frame	West Wind Concepts Pvt. Ltd., Gurgaon/ Shiva Steel Pvt. Ltd. , NOIDA/ AGEW Steel Manufacturing, Ahmedabad/ Sukri/ Godjeji/ Gurdian/ Navair
Sl No.	Material	Makes/Manufacturer
<b>Flooring</b>		
1.	Antistatic Epoxy Floor	Fosroc/ BASF/ Cico/ Sika Pidilite, MC Bouchehe
2.	Ceramic tiles	Johnson/ Somany/ Kajaria/ Spartek/ Nitco/ Orient/ Bell Ceramics
3.	Ceramic tiles Adhesive	Cico/ Bell/ Pidilite/Bal Endura/ BASF/Sika
4.	Compressed Chequered tiles	Johnson/ Somany/ Kajaria/ Spartek/ Nitco/ Orient/ Bell Ceramics
5.	Epoxy SLF Flooring	Sika/ Stonhard/ STP/ BASF/ Pidilite
6.	Glazed Tiles	Bell/ Somany/ Johnson/ kajaria/ Cera/ Spartek/Orient / Nitco
7.	PVC Flooring	Tarkett Floors/ LG Floors/ Gerflor/ Responsive/ Premier Vinyl flooring /Regent / Armstrong
8.	Vitrified Tiles	Nitco/ Naveen/ Bell/ H.R. Johnson/ Kajaria/ Somany / Euro
<b>Roofing</b>		
9.	Water Proofing	Shalimar Tar Products/ M/S IWL (India) Ltd/ M/S Lloyd Insulations India Ltd./ MIS Chemisol Adhesive Pvt. Ltd. , Mumbai/ (Chemistik) Texas Ltd./Fosroc /Sika / Cico /MC Boucheme
10.	Water Proofing Agencies	Shalimar tar products/ IWL (India) Ltd. / Llyod Insulations India Ltd. / Chemisol Adhesive Pvt. Ltd. Mumbai/ Indian Water proofing /Overseas Water Proofing/ (Chemistik) Texas Ltd/ Fosroc /Sika / Cico/ MC Boucheme
<b>Finishing</b>		
11.	Cement Based Paints	All types of paints i.e. cement based paints, Oil bound distemper, acrylic paints, plastic emulsion paints etc shall be First quality of makes ICI, Berger, Asian, Shalimar, Goodlas Narolac and Johnson & Nicholsons make, For Cement based paint add Snowcem plus and TataCem make.
12.	Cement Paint	
13.	Dry Distemper	
14.	Oil Bound Distemper/Acrylic Washable Distemper	
15.	Other Paints/ Primer	
16.	Plastic Emulsion Paint	
17.	Synthetic Enamel Paints	
18.	Resin Based Paints	
A	External Emulsion Paint	
19.	Clear Glass/ Clear Float Glass/ Toughened Glass	Modi/ Saint Gobain (SG)/ Asahi India Safety/ GSC/ Tata/ Atul
20.	Epoxy Paint	Nerolac/ Shalimar/ Cico/ Fairmate/ Sika/BASF/ Berger/ Asian / Pidilite
21.	Gypsum Board	Gypsum false ceiling Gypsum India Ltd./ Boral Gypsum/ India Gypsum / Laffarge/ USG/ St. Gobain (Gyproc)
22.	Gypsum False Ceiling	Gypsum false ceiling Gypsum India Ltd./Boral Gypsum/ India Gypsum/ Laffarge /St. Gobain (Gyproc)

23.	Metal False Ceiling	Decosonic/ Armstrong/ Durlum/ Trac/ Unimet
24.	Mineral fibre ceiling	Armstrong/ Decosonic CNBM / Daiken
25.	Modular SS Railing System	Metallica India/ Stark Steel Fabricators/ Het creators/ D-Line Internation Denmark / Mobel Hardware
Sl No.	Material	Makes/Manufacturer
1.	Polysulphide Sealant	Pidilite/ Fosroc/ Choksey/ Chematal Rai/ Cico /Sika, MC Bouchemie, BASF
2.	Powder Coating Material Pure Polyester	Jotun/ Berger/ Goodlass Nerolac
<b>Sanitary Installation</b>		
3.	Centrifugally cast C.I Rainwater intel fitting / Bronze greatings etc	Sages Metals/ GMGR/ Electro Steel / Kesoram/ IISCO / Neco / BIC. Note. In lieu of CI pipes, HDPE pipes should be used
4.	C.I Fitting	R/KS/ AVR / UNIK /Electrosteel / Kesoram / ISSCO/ Neco/ RIF
5.	C.I Manhole Covers	NECO/ R.I.F/ B.C./ HEPCO/ SKF/ HIF/ KK/ Manhole/ BIC/ B.C
6.	Centrifugally casted C.I. Pipes (IS 8329)	Electro Steel / Kesoram/ IISCO /RIF / Neco
7.	C.P. WASTE , SPREADERS, URINAL	JAQUAR/ PARKO/ KINGSTON/ GEM /Plumber
8.	Cockroach Trap	Chilly/ Player/ Carmry
9.	Drainage Pumps	Grundfos/ KSB/ Salmson Kirloskar
10.	Flush Valves	Gem/ Jaquar/ Parko/ Kingston / Plumber / Marc
11.	Handicapped Toilet	Hindware/ Parryware/ Commander
12.	INBUILT DRIP LINE	AZUD/ RAINBRID-USA/ NETAFIM
13.	Liquid Soap Container	Utech Systems/ Blue Circle (India) Pvt. Ltd., Kimberly Clark
14.	LIQUID SOAP DISPENSER	CHILLY/ EURONICS/ CARMY
15.	Mirror	Modiguard/ Atul/ Saintgobain/ Asahi India Safety/Modi Float
16.	Plastic seat cover of W.C	Commander/ Hindware/ Johnson/ Poddar/ Parryware/ Bestolite/ Jaquar
17.	POP UP CONNECTING ASSEMBLY	RAIN BIRD/ USA/ DURA/ USA/ LASCO, USA
18.	POP UP SPRAY HEAD	RAIN BIRD/USA/ TORO, USA/ NELSON, USA
19.	PVC flushing cistern	Commander/ Johnson Pedder/ Parryware/ Duralite
20.	PVC Pipes & fitting SWR Soil, Waste & Vent Pipes and fittings, Type B PVC Casing & Screen Pipes	Prince/ Supreme/ Finolex/ SKF/ Ori-Plast /Kasta / Vector
21.	R.C.C. Pipes	Indian Hume Pipe/ Pragati Concrete Udyog/ ISI Marked Pipes
22.	RCC/ SFRC MANHOLE COVERS/ PERFECT RCC GRATING	KK/ SK PRECAST CONCRETE/ ADVENT CONCRETOVISION
23.	SENSOR OPERATED AUTO FLUSHING	Jaquar/ AOS- Robo/U-tec/parry/ Angash/ Euronics

	SYSTEM URINALS	
24.	Stainless Steel Sink	Hindware/ Jayna/ Neelkanth/ Nirali/ Kingston/ AMC/ Orient/ Commander
25.	Stoneware pipes & Gully Traps	Perfect/ Burn/ SKF/ R.K/Hind (Conforming to ISI)
26.	UPVC pipes & fittings	Finolex/ Prince/ Supreme/ AKG / Kasta / Vector
27.	Vitreous China/ Sanitary ware	Parryware/ Neycer/ Cera/ Hindware
28.	White Glazed Fire Clay Sink	Sanfire/ Cera/ Neycer/ Hindware
29.	Cockroach Trap	Chilly/ Player/ Euronics/ Camry
30.	Mirrors	Modiguard/Saint Gobain/ Asahi India Safety
31.	Polythylene Water Storage Tank	Sintex/ Rotex/ Fusion/ Storex/ Plasto/Polycon / Rotomac plus
32.	PVC Water Stops	Prince/ Supreme/ Finolex/ Oriplast/ BASF/ Maruti
33.	UPVC Rain water pipes	Prince/ Supremen/ Finolex/ Oriplast / Kasta / Vector

SI No.	Material	Makes/Manufacturer
<b>Water Supply</b>		
1.	Air Release Valve	AZUD/API/ BERMAD / BIR / Kirloskar/ Venus
2.	Automatic variable temprature control/ fixed temprature control faucets	Jaquar/ AOS- Robo-U-tec/parry/ Angash/ Euronics
3.	Ball valves with floats	Zolato/ Leader/ Sant/ Jayco/ GPA
4.	Brass stop & Bib Cock	Zoloto/ Sant/ Jaquar
5.	C.I. Sluice Valve & Non Return Valve	Kirloskar/ IVC/ Leader /Zolato / L & T
6.	C.I. Valves (Fullway, Check and Globe Valves	Leader/ Kirloskar/ SKF/ Zolto/ Sant /Upadhyay
7.	C.P. Fittings Mixer/ Pillar taps/ Valves Washers, C.P. brass accessories	Parko/ Jaquar/ /Marc/ Plumber /Dripless/ Soma/ Kingston/ Gem/ Crystal/ Sanitoryware (ARK)/ Parry/ Docol (Germany) Marketed by GEM/ Ideal Orient
8.	P.T.M.T. fitting	Prience/ India/ Symet
9.	Water Meter	Capstan/ Krant/ Anand
<b>Aluminium Work</b>		
10.	Aluminium Accessories and Hardware	Classic/ Argent/ Oxford/ Newlite/ Crown/ EBCO / Earl Bihari
11.	Aluminium Cladding sheets	Aludecor/ Amstrong/ Alucobond/ Alupan/ Alstone/ Polybond
12.	Aluminium Die- Cast handles & two point locking kit	Giesse/ Securistyle/ Alu-alpha
13.	Aluminium Extrusion	Indal/ Mahavir/ Hindalco/ Jindal/
14.	Aluminium Fabricators	M/s. International glass House, M/s. AGV Alfa Lab Ltd., M/s. Consolidated Engg. Company/ M/s. Ajit (India) Pvt. Ltd. / CALCO / ALKARMA

15.	Door Closer / Floor spring	Doorking/Everite/ Hardwyn/Master
16.	Door Seal- Woolpile Weather Strip	Anand Reddiplex/ Enviroseal
17.	Glass for Aluminium Doors/ Windows	Modi Float glass (India) Saint Gobain / Asahi India Safety Glass Ltd./ Atul
18.	Glass Doors (Motorised)	Autodoor Industries/ DORMA/ Erreka
19.	Night Latch	Godrej/ Harrison/Link
<b>Water Proofing</b>		
20.	Sunken Portion Treatment	Choksey/ Sika/ Cico,MC Bouchemie/ MC Bouchemie / BASF
<b>Basic Items</b>		
21.	Cement	ACC (Associated cement co.) L&T/ Gujrat Ambuja Cement / Birla Corp. Ltd. (Cement Divn.) JK Cement/ Jaypee Rewa Cement, / Grasim Cement / Shree Cement / Lakshmi Cement / Century / Laffarge / Prism / India Cement / Bangur
22.	Reinforcement Steel	SAIL/ Rashtriya Ispat Nigam Ltd. / TISCO/ IISCO
<b>Miscellaneous Items</b>		
23.	Calcium Silicate Boards	HILUX / Aerolite
24.	Cacium Silicate Tiles	Aerolite / HILUX .
25.	Stainless Steel Clamps	Hilti/ Intellotech/ Konzept
26.	E.P.D.M. Gaskets	Anand Reddiplex/ Enviro Seals
27.	Flexi Tape	Norton/ Bizzare
28.	Glass Fibre Acoustical Tiles	ECOPHON/ UP Twiga

Sl No.	Material	Makes/Manufacturer
1.	Glass Wool	Rockwool/ UP Twiga/ Lloyds Insulation
2.	Grab bars and Disabled Hardware	Dline or equivalent
3.	Panic Exit Device	Dorma/ Dline
4.	Polycarbonate Sheets	Macrolux/ GE Plastic/ Vergola/ Skyarch/ Polytechno
5.	Silicon sealants (I) Weather Sealant (ii) Structural Glazing Sealant	GE- Silicon/ Pidilite/Choksey/ Wacker/ Forsoc/ Cico/ Dow Corning/ Sika/
6.	White Cement	Birla White/ J.K. / Grasim
	<b>Note:-</b>	
7.	In Case of different quality/ pattern of same make, the pattern /quality / cat part no shall be approved by the Engineer -in -charge.	
8.	OPC 43 grade cement shall be used in Structural work and PPC may be used for others works only.	

**VENDORS LIST (ELECTRICAL)**

<b>Sl No.</b>	<b>Material</b>	<b>Makes/Manufacturer</b>
<b>1.</b>	MCCB with variable Microprocessor based (O/C, S/C, E/F)/ Thermo magnetic releases	L&T(D-sine) , Siemens (VL), Schneider(NS compact), ABB(ISO max), GE, Legrand(DPX)
<b>2.</b>	MCBs and MCB DBs/RCCB	MDS(Legrand), Schnieder, Siemens, GE,ABB,Hager
<b>3.</b>	Wiring Cables (FRLS) and telephone cables	Polycab , Finolex , Anchor , Havells, RRRKabel, L&T
<b>4.</b>	Modular switches, boxes / accessories	Anchor Roma , Crabtree , MK , Siemens , MDS (Legrand), L&T, Finolex, SSK, Clipsal, Northwest
<b>5.</b>	Piano type switches and accessories	Anchor,Leader, Havells,L&T, Finolex, SSK
<b>6.</b>	Steel Conduits	BEC , AKG, Steel craft , MK , NIC , Kalinga
<b>7.</b>	Conduit Accessories	Rama, Novel, BEC , AKG, Steel craft, MK , NIC,
<b>8.</b>	Celling Fans	Crompton , Usha ,Orient,Bajaj,Havells,GE
<b>9.</b>	Fluorescent Tube fittings	Philips , Crompton , Wipro ,Bajaj,, Trilux, Surya, Osram, Havells, Keslec
<b>10.</b>	Lightning Arrestor	Indelec, Gersom, Helitta, MDS, Hager, Duval Messin
<b>11.</b>	Industrial Socket Outlets	MDS,Havells, ABB,Hager
<b>12.</b>	CFL Lamps	Philips, Crompton, Wipro,GE,Osram,Bajaj
<b>13.</b>	Exhaust Fan	Usha, Crompton, Havells, GE, Bajaj
<b>14.</b>	Telephone Tag block	Krone, TVS, R&M
<b>15.</b>	Telephone wire, Coaxial wires and PA System	Finolex, Delton,Skytone, Ancor, L&T
<b>16.</b>	Crimping lugs/thimbles	Dowells, Commet