

MINISTRY OF HEALTH & FAMILY WELFARE

GOVERNMENT OF INDIA, NEW DELHI

Tender No. MoHFW /AIIMS-RISHIKESH/BBW-NH/HLL/ID/2014

Request for Proposal (RFP)

for

**SETTING UP OF RESIDENTIAL COMPLEX
AT AIIMS RISHIKESH
(SH: Balance Building Works-Nurses Hostel)**

The Complete Tender Documents consist of the following:

- Volume- I (NIB & ITB)
- Volume-II (GCC & SCC)
- Volume-III (Tech. Specs)
- Volume-IV (BOQ)



B-14A, Sector – 62,
NOIDA (UP) -201307

Phone no: 0120-4071500, Fax no: 0120-4071513

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Issued

To: _____ (Contractor)

Signature of officer issuing the Documents _____

Designation _____

Date of Issue _____.

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THE COMPLETE TENDER DOCUMENTS CONSIST OF THE FOLLOWING:

- **Volume- I (NIB & ITB)**
- **Volume-II (GCC & SCC)**
- **Volume-III (Tech. Specs)**
- **Volume-IV (BOQ)**

Volume- I

- **Notice inviting Bidders**
- **Instructions to Bidders**



B-14A, Sector – 62,
NOIDA (UP) -201307

Phone no: 0120-4071500, Fax no: 0120-4071513

(March, 2014)

MINISTRY OF HEALTH & FAMILY WELFARE

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Volume- I (NIB & ITB)

- Notice Inviting Bid
- Instructions to Bidders



B-14A, Sector – 62,
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Phone no: 0120-4071500, Fax no: 0120-4071513

(March, 2014)

**MINISTRY OF HEALTH & FAMILY WELFARE
GOVERNMENT OF INDIA, NEW DELHI**

NOTICE INVITING TENDER

1. HLL Lifecare Limited (HLL) has been entrusted with the job of construction of Residential Complex for coming up of AIIMS at Rishikesh (Uttarakhand) by Ministry of Health and Family Welfare (Government of India).
2. HLL Lifecare Limited on behalf of MoH&FW invites Bid in two Bid System-Technical and Financial, as per the eligibility criteria. Details of the Project are: -

Tender No.	Name of work & Location	Estimated cost (Rs.)	Completion period	Date of issue of tender document	Last date of submission (at HLL Noida)	Bid Security / EMD (Rs. In Lacs)
MoHFW /AIIMS-RISHIKESH / BBW-NH/ HLL/ ID/2014	SETTING UP OF RESIDENTIAL COMPLEX AT AIIMS RISHIKESH (SH: Balance Building Works-Nurses Hostel)	Rs. 279.5 lakh	Four (4) Months	From 11.03.2014 to 25.03.2014	03.04.2014 at 15.00 Hrs	Rs. 5.59 Lakhs

The complete set of Tender Documents comprising four Volumes (Vol. I to IV) including Pre-qualification Criteria (Vol-I) has been made available at HLL website www.lifecarehll.com and CPP Portal. The interested applicant contractors/firms may check their eligibility for the tender. Complete set of Tender Documents along with Tender Drawings are available at the office of HLL Lifecare Limited, B-14A Sector-62, Noida-201307.

The interested applicant contractors / firms after checking their prequalification status should purchase the complete set of tender documents comprising of Volumes I,II, III, and IV and CD containing Tender Drawings in person or through Post from the office of HLL Lifecare Limited, B-14A Sector-62,Noida-201307 on any working day as mentioned above on written request mentioning the name & description of work along with a non-refundable fee of Rs. 2500/- (Rupees Twenty Five Hundred only), including service tax, through demand draft in favour of HLL Lifecare Limited payable at New Delhi.

The tender documents obtained from HLL Lifecare Limited Noida office , signed by the authorised representative of the applicant contractors/ firms shall only be submitted complete in all respects along with requisite Bid Security in the form of Bank Guarantee from a Scheduled Bank as per format given in the Tender Documents in favour of HLL Lifecare Limited /Demand Draft of a Scheduled Bank in favour of HLL Lifecare Limited Payable at New Delhi on or before due date and time as mentioned above at HLL Office B-14A, Sector-62, Noida-201307. MoHFW/HLL reserves the right to accept or reject any application without assigning any reason or incurring any liability whatsoever.

Prospective bidders are advised to regularly scan through HLL & MoHFW web sites as corrigendum/amendments etc., if any, will be notified on the HLL & CPP Portal and separate advertisement will not be made for the same.

ED (ID), HLL
For and on behalf of
Ministry of Health & Family Welfare,
Govt. of India, New Delhi

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**MINISTRY OF HEALTH & FAMILY WELFARE
GOVERNMENT OF INDIA, NEW DELHI**

DISCLAIMER

This document has been prepared by HLL Lifecare Limited, on behalf of Ministry of Health & Family Welfare (MoHFW), Government of India. The information is provided to prospective Bidders, who are interested to Bid for “SETTING UP OF RESIDENTIAL COMPLEX AT AIIMS RISHIKESH (SH: Balance Building Works-Nurses Hostel)”

This document is neither an agreement, nor an offer or invitation to perform work of any kind to any party. The purpose of this document is to provide interested parties with information to assist the preparation of their Bid. While MoHFW/HLL have taken due care in the preparation of the information contained herein, and believe it to be complete and accurate, neither any of their authorities or agencies nor any of their respective officers, employees, agents or advisors give any warranty or make any representations, expressed or implied as to the completeness or accuracy of the information contained in this document or any information which may be provided in association with it.

Further, MoHFW/HLL does not claim that the information is exhaustive. Respondents to this document are required to make their own inquiry/ survey and will be required to confirm, in writing, that they have done so and they did not rely solely on the information given herein.

MoHFW/HLL reserves the right not to proceed with the Project or to change the configuration of the Project, to alter the timetable reflected in this document or to change the process or procedure to be applied. It also reserves the right to decline to discuss the Project further with any respondent. No reimbursement of cost of any type or on any account will be made to persons or entities submitting their Bid.

**MINISTRY OF HEALTH & FAMILY WELFARE (MOHFW)
GOVERNMENT OF INDIA, NEW DELHI**

**SETTING UP OF RESIDENTIAL COMPLEX AT AIIMS RISHIKESH (SH: Balance Building Works-
Nurses Hostel)**

Definitions:

1. **"Application"** shall mean the response submitted by interested parties.
2. **"BID/ Tender"** shall mean documents issued by MOHFW/HLL to the prospective Bidder. The word "Tender" is synonymous with "Bid"
3. **"Project"** shall mean **"SETTING UP OF RESIDENTIAL COMPLEX AT AIIMS RISHIKESH (SH: Balance Building Works-Nurses Hostel)"**
4. **"Site"** shall mean the place where the works under the Project are to be carried out and the details of which are provided in this document.
5. **"Bid Security/ Earnest Money"** shall mean the amount to be deposited by the Tenderer with the Tender.
6. **"Bid Validity"** shall mean the period for which the Bids shall remain valid.
7. **"Bidder"** shall mean the party participating in the Tendering process pursuant to and in accordance with the terms of this document.
8. **"Contract Agreement"** shall mean the agreement to be signed between the Successful Tenderer and the competent authority on behalf of MOHFW/ their authorized representative.
9. **"Contract Price"** shall mean the financial bid of the Successful Tenderer as accepted by the Client.
10. **"Client/Owner/MoHFW"** shall mean Ministry of Health & Family Welfare (MoHFW), Government of India (GOI).
11. **"Employer/Principal Employer"** shall mean Ministry of Health & Family Welfare (MoHFW), Govt. of India (GOI).
12. **"HLL"** shall mean **HLL Lifecare Limited** appointed by MoHFW as Project Consultant for the project.
13. **Engineer in Charge (EIC)** means the authorized representative nominated by MoHFW/ HLL.
14. **"Evaluation Committee"** shall mean the committee constituted by MoHFW/ HLL for the evaluation of the bids.

15. **“Successful Tenderer”** shall mean the Tenderer declared technically and financially successful for the Project and with whom, the Contract Agreement shall be signed.
16. **“Letter of Award”** shall mean the letter issued by the Client/HLL to the Successful Tenderer inviting him to sign the Contract Agreement.
17. **“Date of commencement of work”** shall mean the date of Start as specified in the Schedule “F” or the date of handing over of the site, whichever is later in accordance with the phasing if any, as indicated in the tender document.
18. **“Performance Security”** shall mean the amount to be paid by the Successful Tenderer as per relevant clause mentioned elsewhere.
19. **“Similar Works”** as defined in qualifying criteria.
20. **“NIT”** means Notice Inviting Tender. The word “Notice Inviting Tenders” is synonymous with “Notice Inviting Bids (NIB)”.
21. **“Defects Liability Period/ Maintenance Period”** means the period after completion of the Project during which the Client /HLL or their authorized representative / Engineer-in –charge that will notify to the Contractor any defect noticed in the work and the Contractor is liable for rectification of such defects. Proof of dispatch of letter notifying the defect/ intimating the representative of Contractor at site on the last date of Defect liability period will make the Contractor liable for rectify all such defects.

SECTION-I
NOTICE INVITING TENDER

MINISTRY OF HEALTH & FAMILY WELFARE
GOVERNMENT OF INDIA, NEW DELHI

SETTING UP OF RESIDENTIAL COMPLEX AT AIIMS RISHIKESH
(SH: Balance Building Works-Nurses Hostel)

- 1.0** Item Rate Tenders are invited on behalf of the President of India from eligible contractors as per eligibility criteria laid down, for the work of **“SETTING UP OF RESIDENTIAL COMPLEX AT AIIMS RISHIKESH (SH: Balance Building Works-Nurses Hostel)”**
- 1.1** The work is estimated to cost as given in Table - I. This estimate, however, is merely a rough guide. Executive Director (ED), Infrastructure Development (ID), HLL Lifecare Limited, B-14-A, Sector-62 Noida-201307 will deal with all the matters relating to invitation of tenders. Any clarification shall be sought from ED (ID), HLL Lifecare Limited on Tele-Fax 0120-4071627. The NIT and other details are also available on the following websites: www.lifecarehll.com and CPP Portal

1.2 TABLE– I

a	Tender No.	MoHFW /AIIMS-RISHIKESH/ BBW-NH/HLL/ID/2014
b	Name of work & Location	SETTING UP OF RESIDENTIAL COMPLEX AT AIIMS RISHIKESH (SH: Balance Building Works-Nurses Hostel)
c	Estimated cost (Rs.)	Rs. 279.5 lacs
d	Completion period	Four (4) Months
e	Bid Processing Fee (non-refundable)	Rs.2500/- (including service tax) by DD in favour of HLL Lifecare Limited payable at New Delhi
f	Period for issue of Bid/ tender document	From 11.03.2014 to 25.03.2014 between 11.00 Hours & 16.00 Hours every day except 2 nd & 4 th Saturday, Sunday and Public Holidays
g	Last date for receipt of request for issue of tender document	Till 25.03.2014 (15: 00 Hrs.)
h	Last date for submission of queries	27.03.2014 by 5 PM
i	Pre bid meeting	On 28.03.2014 at 11.00 Hrs
	Date for issue of addendum	29.03.2014 addendum will be available at website of HLL and CPP Portal
j	Bid Security / EMD (Rs. In Lacs)	Rs. 5.59 Lakhs
k	Bid Validity	180 days
l	Last date of submission of Bids (at HLL Noida)	03.04.2014 at 15.00 Hrs

m	Date of opening of Technical Bids	03.04.2014 at 15.30 Hrs
n	Date of opening of Price Bids	To be intimated at appropriate stage
o	Address for communication in connecting with this bid	ED (ID), HLL Lifecare Limited B-14A, Sector-62,Noida – 201307 Tel No. 0120-4071500 Fax: 0120-2368144 Email: skmalhotra@lifecarehll.com

1.3 Pre bid conference will held in the Conference Room, HLL Lifecare Ltd. B-14, Sector-62, NOIDA-201307 or any other venue as decided in future for which intimation will be published on web site. ED (ID), HLL Lifecare Ltd. may also be contacted.

1.4 Eligibility Criteria:

Tenders will be issued to all intending & eligible Contractors/Firms. However, the Tenderer should meet the following minimum eligibility criteria:

- (a) The tenderers must be in existence as a contracting firm at least since last 7 years ending last day of the month previous to the one in which applications are invited.
- (b) Experience should be in the name of the tendering company and not in subsidiary/ associate company/ group of companies.
- (c) **(i)** Experience of having successfully completed works as detailed below during the last 7 years ending last day of the month previous to the one in which applications are invited:-

Three similar completed works each costing not less than the amount equal to 40% of the estimated cost put to tender (rounded to nearest Rs. 10 Lac).

Or

Two similar completed works each costing not less than the amount equal to 60% of the estimated cost put to tender (rounded to nearest Rs. 10 Lac).

Or

One similar completed work of cost not less than the amount equal to 80% of the estimated cost put to tender (rounded to nearest Rs. 10 Lac).

And

(ii) One Completed work of any nature (either part of c (i) or a separate one) costing not less than the amount equal to 40% of the estimated cost put to tender with some Central Government Department / State Government Department/Central Autonomous Body /Central Public Sector undertaking/ State Autonomous Body/ State Public Sector Undertaking.

(d) **“Similar Works”** shall mean a Project comprising Construction of any Building work.

(e) JV/ Consortium are not permitted.

(f) The value of executed works shall be brought to current costing level by enhancing the actual value of work at simple rate of 7% per annum; calculated from the date of completion to the last date of receipt of applications for tender.

- (g) **Turnover:** Average annual financial turnover on construction works should be at least 50 % of the estimated cost during the immediate last three consecutive financial years. The turnover will be considered only for bidding company and not for group of companies or subsidiary company etc.
- (h) **Profit / Loss:** The Company should have positive Net Worth and should have not occurred loss in more than 2 years in last 5 years ending F.Y. 2012-13 duly certified by the Chartered Accountant.
- (i) **Solvency Certificate:** Solvency of the amount equal to 40% of the estimated cost of the work.
- (j) The bidding capacity of the contractor should be equal to or more than the estimated cost of the work put to tender. The bidding capacity shall be worked out by the formula;

$$\text{Bidding Capacity} = (A * N^2) - B$$

Where

A= Maximum Value of construction works executed in any one year during the last 7 years taking in to account the completed as well as work in progress.

N= Number of years prescribed for completion of work for which bids has been invited.

B= Value of existing commitments and ongoing works to be completed during the period of completion of work for which bids have been invited.

- 1.5 The time allowed for carrying out the work will be as mentioned in Table-I above effective from the date of start as defined in schedule 'F' or from the first date of handing over of the site, whichever is later & in accordance with the phasing / milestones, indicated in the tender documents.
- 1.6 (i) The site for the work is located in the AIIMS Compound at Rishikesh, Uttrakhand. The site is available.
- (ii) The tender architectural and structural drawings for the work are available. The working architectural and structural drawings shall be made available in phased manner, as per requirement of the same as per approved programme of completion submitted by the contractor after award of work.
- 1.7 Tender documents consisting of plans, specifications, the schedule of quantities of the various classes of work to be done and the set of terms & Conditions of contract to be complied with by the contractor whose tender may be accepted and other necessary documents, can be obtained from the office of HLL Lifecare Ltd., B-14A, Sector-62, NOIDA-201307 as per schedule in Table 1 above.
- 1.8 The interested applicants/contractors/firms after checking their prequalification status should purchase the complete set of tender documents comprising of Vol. I, II, III, and IV in person or through Post from the office of HLL Lifecare Limited, B-14A, Sector-62, Noida-201307 on any working day as mentioned above on written request mentioning the name & description of work along with a nonrefundable fee as at Table-1 above through demand draft in favour of HLL Lifecare Limited payable at New Delhi.

- 1.9 Interested applicant contractors/firms may like to attend the pre bid meeting which is scheduled to be held at HLL Office B-14A, Sector-62, Noida-201307 as at Table-1 above.
- 1.10 The tender documents obtained from HLL Lifecare Limited Noida office , signed by the authorized Representative of the Applicant/ Contractor/ Firm shall only be submitted in complete in all respect along with requisite Bid Security in the form of Bank Guarantee from a Scheduled Bank as per format given in the Tender Documents in favour of HLL Lifecare Limited /Demand Draft of a Scheduled Bank in favour of HLL Lifecare Limited Payable at New Delhi on or before due date and time as mentioned above at HLL Office B-14A ,Sector-62, Noida-201307.
- 1.11 The tenders are invited in two bid systems i.e. Technical Bid and Financial Bid placed in separate envelopes, the Earnest Money (EMD) shall be placed in separate sealed envelope, and, each marked "Technical Bid", "Financial Bid" and "Earnest Money" respectively. All three envelopes shall be submitted together in another sealed envelope with the name of work and due date of opening written on envelope, which will be received and the Bids will be opened, as per schedule at Table 1 above, in the presence of bidders or their authorized representatives who may choose to attend, in the office of HLL Lifecare Limited, B-14A, Sector-62 Noida-201307. If such nominated date for opening of bid is subsequently declared as a public holiday, the next official working day shall be deemed as the date of opening of the bids. Technical Bid of only those tenderers/bidders shall be opened, whose earnest money, placed in the EMD envelope, is found to be in order.
- 1.12 The bidder, whose bid is accepted, will be required to furnish performance guarantee for a value of 5% of the accepted tendered amount within the period in the schedule-'F'. This Bank Guarantee shall be in the given format in the favour of HLL Lifecare Limited, Noida as per form C.
- 1.13 In case the contractor fails to deposit the said performance guarantee within the period as indicated in schedule -'F', including the extended period, if any, the earnest money deposited by the contractor shall be forfeited automatically without any notice to the contractor.
- 1.14 Evaluation of performance: - Evaluation of past performance of contractors forming part of the eligibility criteria quoted by them in their Technical Bid shall be done by Client/HLL. If required, the works executed by the bidders who otherwise qualify may be inspected by a committee or any other authority as decided by Client/HLL.
- 1.15 The brief description of the work is as follows:-

SETTING UP OF RESIDENTIAL COMPLEX AT AIIMS RISHIKESH (SH: Balance Building Works-Nurses Hostel)

Present Stage: - The work for setting up of residential complex at AIIMS Rishikesh was awarded to M/s CRS Infra Projects Ltd., New Delhi, which has since been rescinded. The contractor had executed major parts of Building Works.

Present Scope of work:- The scope of work includes the balance building works-Nurses Hostel of the residential complex of AIIMS at Rishikesh, Uttrakhand, which comprises of:

- I. Nurses Hostel

The balance buildings works in respect of above buildings are as per BOQ and additional works, if any, as per the directions of the Engineer-in-charge.

- 1.16 Copies of drawings and documents pertaining to the works will be open for inspection by bidders at the office of HLL Lifecare Ltd B-14A, Sector 62, Noida-201307 and at the site of work i.e. AIIMS Compound at Rishikesh, Uttarakhand during the period of sale of Tender Documents on all working days.
- 1.17 Tenderers are advised to inspect and examine the site and its surroundings and satisfy themselves before submitting their tenders as to the nature of the ground and sub-soil (so far as is practicable), the form and nature of the site, the means of access to the site, the accommodation they may require and in general shall themselves obtain all necessary information as to risks, contingencies and other circumstances which may influence or affect their tender. A bidder shall be deemed to have full knowledge of the site whether he inspects it or not and no extra charges consequent on any misunderstanding or otherwise shall be allowed. The bidder shall be responsible for arranging and maintaining at its own cost all materials, tools & plants, water, electricity, access, facilities for workers and all other services required for executing the work unless otherwise specifically provided for in the contract documents. Submission of a tender by a bidder implies that he has read this notice and all other contract documents and has made himself aware of the scope and specifications of the works to be done and of conditions and rates at which stores, tools and plant, etc. will be issued to him by the Client/ HLL and local conditions and other factors having a bearing on the execution of the work.
- 1.18 The competent authority of Client/HLL does not bind itself to accept the lowest or any other tender and reserves to itself the authority to reject any or all the tenders received without the assigning of any reason. All tenders in which any of the prescribed condition is not fulfilled or any condition including that of conditional rebate is put forth by the bidder shall be summarily rejected.
- 1.19 Canvassing whether directly or indirectly, in connection with tenders is strictly prohibited and the tenders submitted by the contractors who resort to canvassing will be liable to rejection.
- 1.20 The competent authority of MoHFW/ HLL reserves the right to accept or reject any or all the tenders without assigning any reason, No Bidder shall have any cause of action or claim against the MoHFW/ HLL for rejection of his tender.
- 1.21 The competent authority of MoHFW/HLL reserves to himself the right of accepting the whole or any part of the tender and the bidder shall be bound to perform the same at the rate quoted.
- 1.22 The contractor shall not be permitted to tender for works in case his near relative is Gazetted officer in Ministry of Health and Family Welfare / MOHFW or in the Managerial cadre of HLL and is directly dealing with the Project. Any breach of this condition by the contractor would disqualify him from tendering.
- 1.23 No Engineer of Gazetted rank or other Gazetted officer employed in Engineering or Administrative duties in an Engineering Department of the Government of India is allowed to work as a contractor for a period of one year after his retirement from Government service, without the prior permission of the Government of India in writing. This contract is liable to be cancelled if either the contractor or any of his employees is found any time to be such a person who had not obtained the

permission of the Government of India as aforesaid before submission of the tender or engagement in the contractor's service.

- 1.24 The tender for the works shall remain open for acceptance for a period of 180 days from the date of opening of tenders. If any bidder withdraws his tender before the said period or issue of letter of acceptance, whichever is earlier, or makes any modifications in the terms and conditions of the tender which are not acceptable to the department, then the MoHFW/ HLL shall, without prejudice to any other right or remedy, be at liberty to forfeit 100% of the said earnest money as aforesaid. Further the bidder shall not be allowed to participate in the re – tendering process of the work.
- 1.25 Bidder should either himself meet the eligibility conditions for the respective E&M components including internal Electrical works or otherwise he will have to associate a specialized agency of appropriate class meeting the eligibility requirements as per CPWD norms eligible to bid for these respective components individually. However if an approved contractor list is available for any specialized work in CPWD within the estimated cost of said specialized work or sub-head then the successful bidder/ contractor shall have to select a subcontractor for the said specialized work from the CPWD list for approval of MoHFW/HLL. The bidder should submit an undertaking as per **form 'H'** in their technical bids for his association towards undertaking respective components mentioned in para 1.15 above.
- 1.26 Before undertaking any of the specialized works e.g. placing supply orders for Lifts / HVAC equipment etc., written approval of EIC shall be required.
- 1.27 **Registration/License:**
- a) The tenderer/bidder should have Works Contract Tax/VAT Registration with the appropriate Authorities. In case of non-registration at the time of submission of bid, they will have to submit an undertaking that they will get themselves registered with the concerned authorities if they are awarded work.
 - b) The tenderer/bidder should have registration with EPFO and ESIC. In case of non-registration at the time of submission of bid, they will have to submit an undertaking that they will get themselves registered with the concerned authorities if they are awarded work.
- 1.28 The tenderer/bidder will indemnify MoHFW/HLL, as the case may be, against all penal action that may be levied/effectuated by any concerned authority for default in any labour regulation/ PF/ ESI and other statutory requirements of the relevant Acts/ Laws related to the work of the contractor and will bear the legal charges, if any, and will pay the legal charges/dues directly to the concerned authority. An undertaking in this regard is required to be submitted by applicants' along with prequalification.
- 1.29 The Contractor must not have been blacklisted/ penalized by any government agency or public sector undertaking or judicial authority/arbitration body.

1.30 **Submission of Bids**

A Bid document consists of :

- a. **Volume – I (Notice Inviting Tender(NIT),Instruction to Bidders(ITB))**
- b. **Volume – II (General Conditions of Contract (GCC) & Special Conditions of Contract (SCC))**

c. Volume-III(Technical Specifications(TS))**d. Volume – IV (Bill of Quantities(BOQ))**

Tenderer/bidder may obtain clarification, if any, in respect of this document from the office of the Executive Director (ID) HLL Lifecare Ltd B-14A, Sector 62, NOIDA-201307 till one day before Pre bid meeting.

B Sealing and Marking of Bids:

The Tenderers shall submit their Tenders in two parts i.e. TECHNICAL BID and FINANCIAL BID in two separate sealed envelopes. Both these envelopes with Earnest Money Deposit (EMD) envelope will be kept in another sealed envelope duly marked as Tender for work of **“SETTING UP OF RESIDENTIAL COMPLEX AT AIIMS RISHIKESH (SH: Balance Building Works-Nurses Hostel)”** due for opening on _____ at _____hours. The documents forming part of Technical bid and Financial bid has been explained in clause 2.3.6 & 2.3.7 of Instruction to Bidders (ITB) here-in-after.

- 1.31 This Notice Inviting bid shall form a part of the contract document. The successful Tenderer / contractor, on acceptance of his tender by the Accepting Authority, shall, within 15 days from the stipulated date of start of the work, sign the contract consisting of :-

The notice inviting tender, all the documents including General Conditions of the Contract, Special Conditions of Contract, Specifications, Bill of Quantities and drawings, if any, which form part of the tender as issued at the time of invitation of tender and acceptance thereof together with any correspondence leading thereto.

Signature**For & On behalf of President of India**

Executive Director (ID)

HLL Lifecare Ltd

B14A, Sector 62, Noida-201307

For and on behalf of

Ministry of Health & Family Welfare, New Delhi

SECTION-II

INSTRUCTIONS TO BIDDERS (ITB)

2.0 Introduction:

The Ministry of Health & Family Welfare (MoHFW), Govt. of India has set up a programme for bridging the gap between the need and availability of skilled paramedical manpower as well as standardizing the paramedical education in the country. The subject work i.e. **“SETTING UP OF RESIDENTIAL COMPLEX AT AIIMS RISHIKESH (SH: Balance Building Works-Nurses Hostel)”** is part of this programme.

2.1 Eligibility Criteria: As per Notice inviting Bids

2.2 **Disqualification.** Even if a Contractor meets the eligibility criteria, MOHFW may, at their discretion and at any stage during the selection process or execution of the Project, order disqualification of the contractor, if the Contractor has:

- 2.2.1 Made misleading or false representations in the forms, statements and attachments submitted; or
- 2.2.2 The Contractor has been blacklisted by any government agency even after bids have been opened.

2.3 BID Documents:

2.3.1 Contents of BID Documents

BID Document shall consist of the documents listed in this document along with any schedules, addendum or corrigendum etc issued by MOHFW/HLL for the purpose.

2.3.2 Pre-Bid Conference

The purpose of the Pre bid meeting will be to clarify issues/ doubts on any matter that may arise before bidding. MoHFW/HLL shall conduct pre-Bid meeting(s) at the time and venue mentioned in Notice Inviting Bid.

2.3.3 Clarifications

A prospective Contractor requiring any clarification with regards to the BID document may notify Executive Director (ID) HLL Lifecare Ltd B14A, Sector 62, Noida, in writing or by tele-fax at the mailing address indicated in Notice Inviting Bid. Executive Director (ID) will respond in writing to any request for clarification which should be received at least two days prior to the date of Pre bid meeting. Copies of the response (including an explanation on the query but without identifying the source of the inquiry) will be sent to all prospective Bidders to whom, the BID has been issued and also uploaded on the HLL website <http://www.lifecarehll.com> and CPP Portal. Only written communications / clarifications shall be considered as valid.

2.3.4 Amendment to BID Document

- i. At any time prior to the submission of Bids, MoHFW / HLL may, for any reason, whether at its own initiative or in response to a clarification or query raised by prospective Bidders, modify the BID by an amendment.
- ii. The said amendment in the form of the addendum/ corrigendum will be sent to all prospective Bidders to whom, the BID has been issued on or before the last date mentioned in Notice Inviting Bid. This communication will be in writing or by tele-fax and the same shall be binding on the Bidders. Prospective Bidders should promptly acknowledge receipt of the addendum/ corrigendum by Tele-fax/courier to client. The amendments would also be available on the HLL website <http://www.lifecarehll.com> and CPP Portal. The prospective Bidders are advised to regularly visit these websites to ensure that they are aware of the amendments. The addendum (s) / corrigendum(s) issued will form part of the BID documents.
- iii. In order to afford prospective Bidders reasonable time for preparing their Bids after taking into account such amendments, the MOHFW may, at its discretion, extend the deadline for the submission of Bids.
- iv. The above information will be placed on the HLL website <http://www.lifecarehll.com> and CPP Portal and it will be the responsibility of the bidders to read.

2.3.5 Preparation of Bid:

a) Bidder's responsibility:

- i. The Bidder is solely responsible for the details of his Bid
- ii. The Bidder is expected to examine carefully all the contents of BID document as mentioned in Notice Inviting Bids including instructions, conditions, forms, terms, etc and take them fully into account before submitting his bid. Bids, which do not satisfy all the requirements, as detailed in these documents, are liable to be rejected as being unresponsive.
- iii. The Bidder shall be deemed to have inspected the Site and its surroundings and taken into account all relevant factors pertaining to the Site, while preparing and submitting the Bid.

b) Project Inspection and Site Visit

Any Site information given in this BID is for guidance only. The Bidder is advised to visit and examine the Site of works and its surroundings at his/their cost and obtain at his/their own responsibility, any information that they may consider necessary for preparing the Bid and entering into a Contract with the Client, including availability of electricity, water and drainage, where applicable.

MoHFW/HLL shall not be liable for such visits costs, regardless the outcome of the selection process.

- c) Documents Comprising the Bid
- d) Bidder shall submit their Bids in two packages namely the technical package and the financial package. The contents of the technical and financial package are as mentioned hereinafter i.e. Clause 2.3.6 & 2.3.7.
- e) **Alternative Proposal by bidders:**
Bidders shall submit offers that comply with the requirement of the bidding documents, including basic technical design as indicated in the drawing and specifications. Alternative bids/proposals will not be considered.

2.3.6 Contents of Technical Package:

The Technical package, clearly labeled as **"TECHNICAL PACKAGE"**, has to be submitted in two parts, Part-I shall consist of information for responsiveness and other information about Bidder, as required and Part - II shall be the Technical Bid.

- a) Part –I shall comprise the following :
 - i. **Form of Bid and Appendix (Form A) for the Bid**
 - ii. **Checklist for the enclosed documents as per the format attached (Annexure I)**
 - iii. **Bid Security, in original, in a separate envelope, sealed and duly marked "Bid Security" as per the format attached (Form B),**
 - iv. **Format for Performance Security Bank Guarantee (Form C)**
 - v. **Format for Contract Agreement (Form D)**
 - vi. **Power of attorney (Form E) in favour of the person signing the Bid**
 - vii. **Litigation History (Form G)**
 - viii. **Affidavit for engaging specialized agencies (Form H)**
 - ix. **Affidavit by Bidder (Form K)**
- b) Part –II shall comprise the followings :
 - i. **Form "T-1" (Financial Information)**
 - ii. **Form "T-1-B"(Certificate from a Scheduled Bank)**
 - iii. **Form "T-2" (Details of works.....)**
 - iv. **Form "T-3" (Project under execution or awarded)**
 - v. **Form "T-4" (Performance Report of Works)**
 - vi. **Form "T-5" (Structure and Organization)**
 - vii. **Form "T-6" (Details of Technical & Administrative personnel)**
 - viii. **Form "T-7" (Details of Construction Plant for carrying out the work)**

- c) Initialed BID document, as listed in Notice Inviting Bids excluding the Bill of Quantities (Volume-IV) including amendment(s)/addendum(s)/Corrigendum(s)/Clarification(s) issued, if any, related to other than the Bill of Quantities.

2.3.7 Contents of Financial Package

The financial package VOLUME IV- BILL OF QUANTITY including amendment(s) / addendum(s)/ Corrigendum(s) / Clarification(s) issued, if any, related to the Bill of Quantities, clearly labeled as "FINANCIAL PACKAGE" will contain the following:

i. **Financial Bid**

The financial package should be submitted, in a separate sealed envelope. These prices should include all costs associated with the Project including any out of pocket / mobilization expenses, taxes, charges, levies, cess, VAT, including Service tax etc. as applicable till the date of NIT. In case Government levies/modifies any tax subsequently, the same will be adjusted plus/ minus as the case may be.

2.3.8 Bid Submission

i. **Language of Bid**

The Bid and all related correspondence and documents relating to the Project shall be in English language.

ii. **Currency of Bid**

Bid prices shall be quoted in Indian Rupees only. The amount mentioned elsewhere in the bid document will also deemed to be in Indian Rupees unless otherwise mentioned.

iii. **EMD/Bid Security**

- a) The Bidder shall enclose EMD with their Bid for an amount, as mentioned in Notice Inviting Bids.
- b) The EMD will be in the form of a bank guarantee from a scheduled commercial bank in India. The format of the bank guarantee shall be as per Form C. Bank guarantees should be irrevocable and operative for a period as mentioned in Notice inviting Bid. The Bid Security shall be endorsed/pledged in favour of HLL Life Care Limited, B-14A, Sector -62 Noida-201307 and should be valid for a period of six months from date of submission of bids and shall be submitted in a separate envelope super-scribed "**Bid Security for SETTING UP OF RESIDENTIAL COMPLEX AT AIIMS RISHIKESH (SH: Balance Building Works-Nurses Hostel)**"
- c) Bids not accompanied by EMD, shall be treated as non-responsive, and will be summarily rejected by the MoHFW.
- d) The Bid Security of the Successful Bidder shall be returned upon the Bidder executing the Contract Agreement and submitting the required Performance Security.

- e) The Bid Security shall be forfeited if a bidder withdraws his bid during the period of bid validity or in the case of the successful bidder, if he fails to furnish the necessary performance security or enter into the Contract within the specified time limit.

iv. **Extension of Bid Validity**

Prior to the expiry of the original Bid Validity Period, MoHFW may, at its discretion, request Bidders to extend the Bid Validity Period for a specified additional period.

v. **Format and Signing of Bid**

- a. Bid documents (technical package/ bid Part I and II and financial package/ bid) shall be stamped and signed on all pages by a person duly authorized to sign the Bid documents. The Bidder shall also submit a power of attorney authorizing the person signing the documents.
- b. Entries to be filled in by the Bidder shall be typed or written in indelible ink.
- c. The complete Bid shall be without alterations, overwriting, interlineations or erasures except those to accord with instructions issued by MoHFW/ HLL, or as necessary to correct errors made by the Bidder. All amendments/corrections shall be initialed by the person or persons signing the Bid.
- d. All witnesses and sureties shall be persons of status and probity and their full names, occupations and addresses shall be written below their signatures.

vi. **Sealing and Marking of Bids**

The Bid shall be submitted in accordance with the procedure detailed herein. Specified documents shall be enclosed in envelope of appropriate size each of which shall be sealed.

- a. Each Bid will be submitted in two sets one marked "Original" and the other marked "Copy" (Copy should be the photocopy of 'original').

Each set containing the two packages, TECHNICAL BID and FINANCIAL BID shall be sealed in two separate envelopes clearly marked as "TECHNICAL BID" and "FINANCIAL BID ".The two envelopes along with envelope of EMD / Bid Security shall be wrapped in an outer envelope addressed to The Executive Director (ID) HLL Lifecare Ltd.,B-14A, Sector 62, NOIDA-201307, duly super scribing on top "Bid for **SETTING UP OF RESIDENTIAL COMPLEX AT AIIMS RISHIKESH (SH: Balance Building Works-Nurses Hostel)**" and date and time of opening of the Bid_____". The envelope should also bear the name and address of the Bidder.

vii. **Submission of Bids**

Bids should be submitted to:

Executive Director (ID)
HLL Lifecare Ltd
B-14A, Sector 62, Noida-201307
For and on behalf of
Ministry of Health & Family Welfare, New Delhi

The last date for submission of completed Bids is given in Notice Inviting Bids. The MoHFW may, at their discretion, extend this date, in which case all rights and obligations of the MOHFW and the Bidder shall thereafter be subjected to the revised date as extended. If revised date for submission of Bid is subsequently declared as a public holiday, the next official working day shall be deemed as the date for submission of Bid.

- viii. The bids shall be submitted by hand or through registered post or courier service at the address mentioned above so as to reach before scheduled Date & time of submission of tenders. MoHFW/HLL shall not take any cognizance and shall not be responsible for any delay/ loss in transit or non-submission of the Bid in time.
- ix. The bids sent telegraphically or through other means of transmission (Tele-fax, E-mail etc.), which cannot be delivered in a sealed envelope, shall be treated as defective, invalid and shall stand rejected.
- x. **Modifications / Substitution / Withdrawal of Bids**
- (a) No modification or substitution of the submitted Bid shall be allowed.
- (b) A Bidder may withdraw its submitted Bid, provided that written notice of the withdrawal is received by MoHFW/HLL before the last date for submission of Bids. In case a Bidder wants to resubmit his Bid, he shall submit a fresh Bid following all the applicable conditions. Re-submission will not be permitted more than once and till last date and time of submission as notified.
- (c) Only a single copy of the withdrawal notice shall be prepared and each page of the notice shall be signed and stamped by the authorized signatory. The notice shall be duly marked "WITHDRAWAL". This withdrawal notice will be opened at the time of opening of bid and not earlier. The signature of GPA holder will be verified and in case both are same then only withdrawal will be considered.
- xi. **Bid Due Date**
- a. Bids should be received in the office of the Executive Director (ID) HLL Lifecare Ltd., NOIDA at the address mentioned in this document, on or before the stipulated/ extended time and date as specified in Notice Inviting Bids.

- b. MOHFW may, in exceptional circumstances, and at its sole discretion, extend the receipt & opening of Bids by issuing an addendum.

xii. **Late Bids**

Any Bid received in office of the Executive Director(ID) HLL Lifecare Ltd., NOIDA at the address mentioned above after the deadline prescribed for submission of Bids in Notice Inviting Bids/extended data as the case may be, will not be considered and will be returned unopened to the Bidder.

2.3.9 Power of Attorney:

Bidders shall submit, along with Part 1 of the technical Bid, a power of attorney (PoA), on a stamp paper of appropriate value , in favour of the person signing the Bid documents authorizing him to sign the Bid documents, make corrections/ modifications thereto and interacting with MOHFW/ HLL and act as the contact person. The format for the power of attorney shall be as per form E of BID. In case bids are signed by Managing Director/ Director/Partner/ Proprietor himself, power of attorney is not required.

2.3.10 Bid Opening and Evaluation:

Bid Opening

- i. The Bids will be opened in the presence of Bidders or their authorized representatives who may choose to attend on date & time as mentioned in Notice Inviting Bids. If such nominated date for opening of Bid is subsequently declared as a public holiday, the next official working day shall be deemed as the date of opening of the Bid.
- ii. Bids for which an acceptable notice of withdrawal has been submitted shall not be opened.
- iii. Bids which have not complied with one or more of the foregoing instructions may not be considered.
- iv. On opening of the main Bid envelopes, it will be checked if they contain Technical & Financial Bids and envelope of EMD/ Bid Security as detailed above.
- v. First technical package of the Bid will only be opened which will be checked for completeness and confirmation of submission of Bid Processing Fees and the requisite Bid Security. If the documents do not meet the requirements of the BID, a note will be recorded.
- vi. After technical evaluation of all bids, the financial bid of all responsive Bidders will be opened on date & time considered appropriate by MOHFW/HLL after notifying all concerned.

2.3.11 Determination of Responsiveness

- i. Prior to opening & evaluation of Financial Bids, MOHFW/HLL will determine whether each Technical Bid is responsive to the requirements of NIB.

- ii. For the purpose of this clause, a responsive Bid is one which:
 - a. Is packed, signed, sealed and marked
 - b. Is accompanied by the power(s) of attorney if required
 - c. Contains all the information as requested in NIB
 - d. Contains information in same/similar formats as those specified in NIB
 - e. the validity period of the offer is as per NIB
 - f. Is accompanied by the Bid Processing Fee (in case not paid in cash in advance).
 - g. Is accompanied by the Bid Security/ EMD,
 - h. Conforms to eligibility criteria and all the terms, conditions and specifications of NIB without material deviation or reservation. "Deviation" may include exceptions and exclusions. A material deviation or reservation is one which affects substantial way, the scope, quality, performance or administration of the works to be undertaken by the Bidder under the Contract, or which limits in a substantial way, Client's rights or the Bidder's obligations under the Contract as provided for in NIB and/ or is of an essential condition, the ramifications of which would unfairly affect the competitive position of other Bidders.
- iii. If a Technical Bid is not substantially responsive to the requirements of NIB, it will be rejected by MoHFW/HLL. The decision of the MoHFW/HLL in this regard shall be final and binding. The financial Packages of non-responsive Bidders shall be returned unopened.

2.3.12 Evaluation of Bids

- i. MOHFW/HLL would subsequently examine and evaluate Financial Bids of responsive Bidders, as per the criteria set out in this document. Form "T-8"
- ii. MoHFW/ HLL reserves the right to reject any Bid if:
 - a. At any time, a material misrepresentation is made or uncovered; **or**
 - b. The Bidder does not respond within the stipulated time to requests for supplemental information/ clarifications required for the evaluation of the Bid.
 - c. It is found that the information provided is not true or incorrect or facts/ material for the evaluation have been suppressed.
 - d. If the bidder has not quoted rates for any part of the bid.

2.3.13 Clarification of Bids

- i. Evaluation of technical Bids submitted by Bidders shall be undertaken based on details submitted therein only. Bidder shall not be allowed to submit on their own, additional information or material subsequent to the date of submission and such material / information, if submitted, will be disregarded. It is therefore essential that all details are submitted by the Bidder comprehensively, accurately and specifically in their

technical Bid, avoiding vague interpretations. However, Evaluation Committee, if it so desires, reserves the right to seek any clarification from the Bidders on the information provided in the technical package. The request for clarifications and the response shall be in writing, or by tele-fax. No change / addition in the information or substance of the Bid shall be sought, offered or permitted.

- ii. To assist in the examination, evaluation and comparison of the financial Bid, Bid Evaluation Committee may ask Bidders individually for clarifications. The request for clarification and the response shall be in writing or by tele-fax. No change in the price or substance of the Bid shall be sought, offered or permitted except as required to confirm correction of arithmetical errors observed by the Evaluation Committee during the evaluation of Bids. MoHFW/HLL reserves the right to negotiate with the lowest bidder, if considered appropriate.

2.3.14

(a) Process to be Confidential

- i. Except the public opening of the Bids, information relating to the examination, clarification, evaluation and comparison of Bids and recommendations concerning the award of Contract shall not be disclosed to Bidders or other persons not officially concerned with such process.
- ii. Any effort by a Bidder to influence MoHFW/HLL Evaluation Committee in the process of examination, clarification, evaluation and comparison of Bids and in decisions concerning award of Contract, shall result in the rejection of the Bid.

(b) Client/HLL's right to accept any Bid and to reject any or all Bids

- i. Notwithstanding anything above, MoHFW/HLL reserves the right to accept or reject any Bid at any time prior to award of Contract without thereby incurring any liability to the affected Bidder or Bidders.
- ii. MoHFW/HLL reserves the right to cancel/annul the selection process, at any stage prior to the award of the Contract, in larger public interest, on account of the following:
 - a) In case no Bid/ a single Bid is received.
 - b) Occurrence of any event due to which it is not possible to proceed with the selection process
 - c) An evidence of a possible collaboration/mischief on part of Bidders, impacting the competition and transparency of the selection process,
 - d) Any other reason, which in the opinion of the Client necessitates the cancellation of the selection process.
- iii. On occurrence of any such event, MoHFW/HLL shall notify all the Bidders within 7 days of such decision. MoHFW/HLL shall also promptly return the Bid Security submitted by the Bidders within 15

days of issue of such notice. MoHFW/HLL is not obligated to provide any reason or clarification to any Bidder on this account. MoHFW's liability under this clause is restricted to returning the Bid Security and no other reimbursements of costs/ expenses of any type shall be made by the Client/HLL on this account.

- iv. The Client further reserves the right to re-Bid the process or get the work done by a Government agency or Quasi Government agency if the Client is of the opinion that the Bids received are not economically or otherwise feasible or not acceptable due to reasons in sub clauses (a) to (d) above.

2.3.15 Award of Contract

a. Award Criteria

MoHFW/HLL or its assignees or any agency appointed by them will declare the Bidder ranked L1 as Successful Bidder and proceed to issue Letter of Award (LOA) as per the procedure mentioned in the NIB and terms and conditions set out in this NIB document.

b. Notification of Award

- i. MoHFW/HLL will issue the Letter of Award to the Successful Bidder, notifying him of being declared successful and the intent to sign the Contract Agreement with him. This letter (hereinafter and in the Conditions of Contract called 'the Letter of Award') shall mention the sum which MoHFW/HLL will pay to the Contractor in consideration of the completion and guarantee of the work to be performed by them, as prescribed therein (hereinafter and in the conditions of Contract called 'the Contract Price'). No correspondence will be entertained by MoHFW/HLL from the unsuccessful Bidders.
- ii. The Letter of Award shall form part of the Contract.
- iii. Upon submission of Performance Security by the Successful Bidder, MoHFW/HLL will promptly notify the other Bidders and discharge / return their Bid securities.

c. Performance Security

- i. The Successful Bidder shall furnish to MoHFW/HLL or its assignees or any agency appointed by them, towards Performance Security, a bank guarantee for an amount of 5% of the total Contract Price, in accordance with the provisions in the General Conditions of Contract and remaining 5% shall be retained from the running bills. The bank guarantee has to be from a scheduled commercial bank based in India. The format for bank guarantee shall be as per Form-C provided in this BID. The Performance Security shall be furnished within the time limit specified in Notice Inviting Bids.
- ii. The Bank Guarantee should be valid up to 6 (six) months beyond the Defects Liability Period.

- iii. Failure of the Successful Bidder to submit the required Performance Security shall constitute sufficient grounds for the annulment of decision to award the Contract and forfeiture of the Bid Security.

d. **Signing of Agreement**

- (i) Prior to the signing of the Contract Agreement, the Successful Bidder shall submit Performance Security.
- (ii) MoHFW/HLL shall prepare the Contract Agreement in the Proforma (Form D) included in this document, duly incorporating all the terms of agreement between the two parties. The Successful Bidder will be required to execute the Contract Agreement within 30 days from the date of issue of the Letter of Award.
- (iii) The Contract Agreement should be duly signed by MoHFW/HLL or its assignees or any agency appointed by them and Contractor through their authorized signatories.
- (iv) The Contractor shall also be required to sign the integrity agreement with the MoHFW/HLL or its assignees.
- (v) In case the Successful Bidder does not sign the Contract Agreement, MoHFW/HLL reserves the right to cancel the further process, forfeit any Bid Security and/or Performance Security, as the case may be, submitted by the Successful Bidder and either re-Bid or proceed in any other manner as it may deem fit.

e. **Sub-contracting**

- i. The Contractor shall not sub-contract the whole of the works. The Contractor shall not subcontract any part of the work without notifying and getting prior approval from the MoHFW/HLL.
- ii. The Contractor shall be responsible for observance, by all sub-contractors, of all the provisions of the Contract Agreement. The Contractor shall be responsible for the acts or defaults of any sub-contractor, his representatives or employees, as fully as if they were the acts or defaults of the Successful Bidder, his representatives or employees. The Contractor shall provide MoHFW/HLL the details of all the sub contracts including terms and conditions of the contracts entered with them. The Contractor shall be solely responsible for the performance of the sub-contractors and for making payments to them.

f. **Defects Liability Period**

- i. The Defects Liability Period shall be up to 12 months from the date of issue of completion certificate /taking over by MoHFW/HLL.
- ii. The Contractor shall, at its own risk and cost, make good, any defects, complete any leftover work as noticed and notified by MoHFW/HLL during defects liability period.

g. **Ownership of the Designs and Drawings**

- i. All copyright and other proprietary rights in the Works shall vest and stand assigned to MoHFW/HLL and MoHFW/HLL shall consequently own, absolutely and exclusively on a worldwide basis, the whole of property, rights, title and interest including all copyright in the

Works, present or future, vested or contingent, generally and without limitation, for the whole term of the copyright, including the right to modify and/or make any alterations to the Works and all the above rights shall not lapse even if such rights are not exercised by MoHFW/ HLL during the terms of the copyright and the Contractor shall be required/obliged to execute any deeds/ documents, as may be required or considered necessary, by MoHFW/HLL to give effect to and secure the above mentioned rights for MoHFW/HLL in the Works. For the purpose of this clause, the term "Works" shall include all "works" covered by the copyright Act 1957 created by the Contractor at the inception of, during the course of and until the completion of the Project and also includes any work created directly or indirectly in the performance of the obligations of the Contractor in connection with the Project.

- ii. The Contractor shall not use or allow anyone to use these drawings, designs, documents and software without the prior written permission of the Client/HLL and any such act without the permission of the Client/HLL shall constitute violation of Intellectual Property Rights.
- iii. Even in the event of stoppage / cancellation of the selection process, all documents /designs/ drawings submitted by the contractor / Bidder to the MoHFW/HLL on or before the cancellation of the selection process shall become the property of the Client and the Bidders shall have no claim on such documents/design.

h. Right to modify the design

The Client/HLL shall have the right to modify the design prepared by the Contractor. The Contractor shall comply with any such instructions by the Engineer-in-Charge or the Client/HLL and suitably modify the design and submit the same to the Client for approval.

- i. All amendments/ addendum shall be made available at Ministry's and HLL's Web site. It will be the responsibility of the bidder to see the web site regularly and update.

SECTION-III
INTEGRITY PACT

To,

.....,
.....,
.....

Sub: Tenders for SETTING UP OF RESIDENTIAL COMPLEX AT AIIMS RISHIKESH (SH: Balance Building Works-Nurses Hostel) (NIT No. MoHFW /AIIMS-RISHIKESH/ BBW-NH/HLL/ID/2014)

Dear Sir,

It is hereby declared that MOHFW/HLL is committed to follow the principle of transparency, equity and competitiveness in public procurement.

The subject Notice Inviting Tender (NIT) is an invitation to offer made on the condition that the Bidder will sign the integrity Agreement, which is an integral part of tender/bid documents, failing which the tenderer/bidder will stand disqualified from the tendering process and the bid of the bidder would be summarily rejected.

This declaration shall form part and parcel of the Integrity Agreement and signing of the same shall be deemed as acceptance and signing of the Integrity Agreement on behalf of the MoHFW/HLL.

Yours faithfully

ED (ID), HLL
For and on behalf of
Ministry of Health & Family Welfare,
Govt. of India, New Delhi

To

Executive Director (ID)

HLL Lifecare Ltd

B14A, Sector 62, NOIDA-201307

For and on behalf of

Ministry of Health & Family Welfare,

Govt. of India, New Delhi

Sub: Submission of Tenders for SETTING UP OF RESIDENTIAL COMPLEX AT AIIMS RISHIKESH (SH: Balance Building Works-Nurses Hostel) (**NIT No. MoHFW /AIIMS-RISHIKESH/BBW-NH/ HLL/ ID/ 2014**)

Dear Sir,

I/We acknowledge that MoHFW/HLL is committed to follow the principles thereof as enumerated in the Integrity Agreement enclosed with the tender/bid document.

I/We agree that the Notice Inviting Tender (NIT) is an invitation to offer made on the condition that I/We will sign the enclosed integrity Agreement, which is an integral part of tender documents, failing which I/We will stand disqualified from the tendering process. I/We acknowledge that THE MAKING OF THE BID SHALL BE REGARDED AS AN UNCONDITIONAL AND ABSOLUTE ACCEPTANCE of this condition of the NIT.

I/We confirm acceptance and compliance with the Integrity Agreement in letter and spirit and further agree that execution of the said Integrity Agreement shall be separate and distinct from the main contract, which will come into existence when tender/bid is finally accepted by MoHFW/HLL. I/We acknowledge and accept the duration of the Integrity Agreement, which shall be in the line with Article 1 of the enclosed Integrity Agreement.

I/We acknowledge that in the event of my/our failure to sign and accept the Integrity Agreement, while submitting the tender/bid, MoHFW/HLL shall have unqualified, absolute and unfettered right to disqualify the tenderer/bidder and reject the tender/bid in accordance with terms and conditions of the tender/bid.

Yours faithfully

(Duly authorized signatory of the Bidder)

To be signed by the bidder and same signatory competent / authorised to sign the relevant contract on behalf of MoHFW/HLL.

INTEGRITY AGREEMENT

This Integrity Agreement is made at on thisday of 20.....

BETWEEN

President of India represented through the Executive Director (ID), HLL Lifecare Ltd, B14A, Sector 62, NOIDA-201307, For and on behalf of Ministry of Health & Family Welfare, Govt. of India, New Delhi (Hereinafter referred as the '**Principal/Owner**', which expression shall unless repugnant to the meaning or context hereof include its successors and permitted assigns)

AND

.....(Name and Address of the Individual/ firm/Company) through..... (Hereinafter referred to as the (Details of duly authorized signatory) "**Bidder/Contractor**" and which expression shall unless repugnant to the meaning or context hereof include its successors and permitted assigns)

Preamble

WHEREAS the Principal/Owner has floated the Tender (NIT No. MoHFW /AIIMS-RISHIKESH/BBW-NH/HLL/ID/2014) (hereinafter referred to as "**Tender/Bid**") and intends to award, under laid down organizational procedure, contract for the Tenders for SETTING UP OF RESIDENTIAL COMPLEX AT AIIMS RISHIKESH (SH: Balance Building Works-Nurses Hostel), hereinafter referred to as the "**Contract**".

AND WHEREAS the Principal/Owner values full compliance with all relevant laws of the land, rules, regulations, economic use of resources and of fairness/transparency in its relation with its Bidder(s) and Contractor(s).

AND WHEREAS to meet the purpose aforesaid both the parties have agreed to enter into this Integrity Agreement (hereinafter referred to as "**Integrity Pact**" or "**Pact**"), the terms and conditions of which shall also be read as integral part and parcel of the Tender/Bid documents and Contract between the parties.

NOW, THEREFORE, in consideration of mutual covenants contained in this Pact, the parties hereby agree as follows and this Pact witnesses as under:

Article 1: Commitment of the Principal/Owner

- 1) The Principal/Owner commits itself to take all measures necessary to prevent corruption and to observe the following principles:
 - (a) No employee of the Principal/Owner, personally or through any of his/her family members, will in connection with the Tender, or the execution of the Contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.
 - (b) The Principal/Owner will, during the Tender process, treat all Bidder(s) with equity and reason. The Principal/Owner will, in particular, before and during the Tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential / additional information through which the Bidder(s) could obtain an advantage in relation to the Tender process or the

Contract execution.

- (c) The Principal/Owner shall endeavour to exclude from the Tender process any person, whose conduct in the past has been of biased nature.
- 2) If the Principal/Owner obtains information on the conduct of any of its employees which is a criminal offence under the Indian Penal code (IPC)/Prevention of Corruption Act, 1988 (PC Act) or is in violation of the principles herein mentioned or if there be a substantive suspicion in this regard, the Principal/Owner will inform the Chief Vigilance Officer and in addition can also initiate disciplinary actions as per its internal laid down policies and procedures.

Article 2: Commitment of the Bidder(s)/Contractor(s)

- 1) It is required that each Bidder/Contractor (including their respective officers, employees and agents) adhere to the highest ethical standards, and report to the Government / Department all suspected acts of **fraud or corruption or Coercion or Collusion** of which it has knowledge or becomes aware, during the tendering process and throughout the negotiation or award of a contract.
- 2) The Bidder(s)/Contractor(s) commit himself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the Tender process and during the Contract execution:
 - a) The Bidder(s)/Contractor(s) will not, directly or through any other person or firm, offer, promise or give to any of the Principal/Owner's employees involved in the Tender process or execution of the Contract or to any third person any material or other benefit which he/she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the Tender process or during the execution of the Contract.
 - b) The Bidder(s)/Contractor(s) will not enter with other Bidder(s) into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to cartelize in the bidding process.
 - c) The Bidder(s)/ Contractor(s) will not commit any offence under the relevant IPC/PC Act. Further the Bidder(s)/Contract(s) will not use improperly, (for the purpose of competition or personal gain), or pass on to others, any information or documents provided by the Principal /Owner as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.
 - d) The Bidder(s)/Contractor(s) of foreign origin shall disclose the names and addresses of agents/representatives in India, if any. Similarly Bidder(s)/ Contractor(s) of Indian Nationality shall disclose names and addresses of foreign agents/ representatives, if any. Either the Indian agent on behalf of the foreign principal or the foreign principal directly could bid in a tender but not both. Further, in cases where an agent participate in a tender on behalf of one manufacturer, he shall not be allowed to quote on behalf of another manufacturer along with the first manufacturer in a subsequent/parallel tender for the same item.

- e) The Bidder(s)/Contractor(s) will, when presenting his bid, disclose any and all payments he has made, is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the Contract.
- 3) The Bidder(s)/Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.
- 4) The Bidder(s)/Contractor(s) will not, directly or through any other person or firm indulge in fraudulent practice means a willful misrepresentation or omission of facts or submission of fake/forged documents in order to induce public official to act in reliance thereof, with the purpose of obtaining unjust advantage by or causing damage to justified interest of others and/or to influence the procurement process to the detriment of the Government interests.
- 5) The Bidder(s)/Contractor(s) will not, directly or through any other person or firm use Coercive Practices (means the act of obtaining something, compelling an action or influencing a decision through intimidation, threat or the use of force directly or indirectly, where potential or actual injury may befall upon a person, his/ her reputation or property to influence their participation in the tendering process).

Article 3: Consequences of Breach

Without prejudice to any rights that may be available to the Principal/Owner under law or the Contract or its established policies and laid down procedures, the Principal/Owner shall have the following rights in case of breach of this Integrity Pact by the Bidder(s)/Contractor(s) and the Bidder/ Contractor accepts and undertakes to respect and uphold the Principal/ Owner's absolute right:

- 1) If the Bidder(s)/Contractor(s), either before award or during execution of Contract has committed a transgression through a violation of Article 2 above or in any other form, such as to put his reliability or credibility in question, the Principal/Owner after giving 14 days' notice to the contractor shall have powers to disqualify the Bidder(s)/Contractor(s) from the Tender process or terminate/determine the Contract, if already executed or exclude the Bidder/Contractor from future contract award processes. The imposition and duration of the exclusion will be determined by the severity of transgression and determined by the Principal /Owner. **Such exclusion may be forever or for a limited period as decided by the Principal /Owner.**
- 2) **Forfeiture of EMD/Performance Guarantee/Security Deposit:** If the Principal / Owner has disqualified the Bidder(s) from the Tender process prior to the award of the Contract or terminated/determined the Contract or has accrued the right to terminate/determine the Contract according to Article 3(1), the Principal/ Owner apart from exercising any legal rights that may have accrued to the Principal/ Owner, may in its considered opinion forfeit the entire amount of Earnest Money Deposit, Performance Guarantee and Security Deposit of the Bidder/ Contractor.
- 3) **Criminal Liability:** If the Principal/Owner obtains knowledge of conduct of a Bidder or Contractor, or of an employee or a representative or an associate of a Bidder or Contractor which constitutes corruption within the meaning of IPC Act, or if the Principal/ Owner has substantive suspicion in this regard, the Principal/Owner will inform the same to law enforcing agencies for further investigation.

Article 4: Previous Transgression

- 1) The Bidder declares that no previous transgressions occurred in the last 5 years with any other Company in any country confirming to the anticorruption approach or with Central Government or State Government or any other Central/State Public Sector Enterprises in India that could justify his exclusion from the Tender process.
- 2) If the Bidder makes incorrect statement on this subject, he can be disqualified from the Tender process or action can be taken for banning of business dealings/ holiday listing of the Bidder/ Contractor as deemed fit by the Principal/ Owner.
- 3) If the Bidder/Contractor can prove that he has resorted / recouped the damage caused by him and has installed a suitable corruption prevention system, the Principal/Owner may, at its own discretion, revoke the exclusion prematurely.

Article 5: Equal Treatment of all Bidders/Contractors/Subcontractors

- 1) The Bidder(s)/Contractor(s) undertake(s) to demand from all subcontractors a commitment in conformity with this Integrity Pact. The Bidder/Contractor shall be responsible for any violation(s) of the principles laid down in this agreement/Pact by any of its Sub- contractors/sub-vendors.
- 2) The Principal/Owner will enter into Pacts on identical terms as this one with all Bidders and Contractors.
- 3) The Principal/Owner will disqualify Bidders, who do not submit, the duly signed Pact between the Principal/Owner and the bidder, along with the Tender or violate its provisions at any stage of the Tender process, from the Tender process.

Article 6- Duration of the Pact

This Pact begins when both the parties have legally signed it. It expires for the Contractor/Vendor 12 months after the completion of work/handling over of works under the contract or till the continuation of defect liability period and Operation & Maintenance period, whichever is more and for all other bidders, till the Contract has been awarded.

If any claim is made/lodged during the time, the same shall be binding and continue to be valid despite the lapse of this Pacts as specified above, unless it is discharged/determined by the Competent Authority, MoHFW/HLL.

Article 7- Other Provisions

- 1) This Pact is subject to Indian Law, place of performance and jurisdiction in the National Capital Territory of DELHI.
- 2) Changes and supplements need to be made in writing. Side agreements have not been made.
- 3) If the Contractor is a partnership or a consortium, this Pact must be signed by all the partners or by one or more partner holding power of attorney signed by all partners and consortium members. In case of a Company, the Pact must be signed by a representative duly authorized by board resolution.
- 4) Should one or several provisions of this Pact turn out to be invalid; the remainder of this Pact remains valid. In this case, the parties will strive to come to an agreement

to their original intensions.

- 5) It is agreed term and condition that any dispute or difference arising between the parties with regard to the terms of this Integrity Agreement / Pact, any action taken by the Owner/Principal in accordance with this **Integrity Agreement/ Pact or interpretation thereof shall not be subject to arbitration.**

Article 8- LEGAL AND PRIOR RIGHTS

All rights and remedies of the parties hereto shall be in addition to all the other legal rights and remedies belonging to such parties under the Contract and/or law and the same shall be deemed to be cumulative and not alternative to such legal rights and remedies aforesaid. For the sake of brevity, both the Parties agree that this Integrity Pact will have precedence over the Tender/Contact documents with regard any of the provisions covered under this Integrity Pact.

IN WITNESS WHEREOF the parties have signed and executed this Integrity Pact at the place and date first above mentioned in the presence of following witnesses:

..... (For and on behalf of Principal/Owner)

..... (For and on behalf of Bidder/Contractor)

WITNESSES:

1..... (signature, name and address)

2..... (signature, name and address)

Place:

Date :

SECTION-IV

SCOPE OF WORK

1. Project constitutes Submission of Tenders for SETTING UP OF RESIDENTIAL COMPLEX AT AIIMS RISHIKESH (SH: Balance Building Works-Nurses Hostel). The work shall be executed as per detailed engineering design and drawing and specifications as per tender documents.

- Present Stage: - The work for setting up of residential complex at AIIMS Rishikesh was awarded to M/s CRS Infra Projects Ltd., New Delhi, which has since been rescinded. The contractor had executed major parts of Building Works.

2. The activities to be carried out under the contract for the completion of the Project of SETTING UP OF RESIDENTIAL COMPLEX AT AIIMS RISHIKESH (Balance Building works- Nurses Hostel) shall include balance buildings works of Nurses Hostel as per BOQ and additional works, if any, as per the directions of the Engineer-in-charge.

- i. On account of security consideration and residential areas in the vicinity, there could be some restrictions on the working hours, movement of vehicles for transportation of materials and location of labour camp. The contractor shall be bound to follow all such restrictions and adjust the programme for execution of work accordingly.
- ii. The contractor has to ensure co-ordination with the authorities to maintain smooth disruption free working during the execution of work. This may require working rescheduling the normal working hours, working in restricted period etc. Nothing extra shall be payable on this account.
- iii. Stacking of materials and excavated earth including its disposal shall be done as per the directions of the Engineer-in-Charge. Double handling of materials or excavated earth if required shall have to be done by the contractor at his own cost.

3. Approvals Required

The Contractor shall co-ordinate with relevant statutory authorities for obtaining all necessary approvals from Municipal and other local bodies including Municipal bodies, Water supply agencies concerned, Electric Supply and inspectorate. Agencies concerned, Police and Security Agencies, Chief Controller of Explosives, concerned in accordance to prevailing rules, Building Bye-Laws etc., as the case may be w.r.t Construction/ Completion. Statutory payment on this account will be reimbursed by the client at actual on production of payment receipts.

Client/HLL may, at the written request of the Contractor, assist him in obtaining the approvals from relevant authorities. However any such request by the Contractor shall not bind the Client/HLL in any manner.

SECTION V

EVALUATION PROCESS

5.1 Evaluation Process:

The Bids will be evaluated in the following stages:

- i. Stage 1 - Technical Evaluation
- ii. Stage 2 - Financial Evaluation.

5.2 Stage 1-Technical Evaluation

- i. The technical Bids shall be evaluated as per criteria mentioned in the NIB.
- ii. The technical Bid shall be evaluated by the Evaluation Committee based on the qualification criteria laid down. The financial Bid of only those Bidders who are technically qualified shall be opened.
- iii. The financial Bids of Bidders whose technical Bids are found unacceptable shall be returned unopened.
- iv. MOHFW/HLL shall notify all the technically qualified Bidders of their technical qualification indicating the date, time and venue for opening of financial Bids.

5.3 Stage II-Financial Evaluation

- i. The financial bid of all the eligible bidders i.e. whose technical bids are found in order, shall be opened the decision of MoHFW/HLL will be final and binding.
- ii. The date and time of opening of financial bids shall be decided by the client/HLL which will be intimated to all eligible bidders.
- iii. Evaluation Committee shall open the financial Bid of the technically qualified Bidders in the presence of the Bidders/their authorized representative, who choose to attend, at the scheduled date and time.
- iv. On opening the financial Bids, the Evaluation Committee shall read out the financial Bid to all the Bidders and note the same.
- v. The Evaluation Committee shall correct arithmetic errors, if any and sign the same. If any discrepancy is found between the amount in figures and the amount in words, the amount in words shall prevail, for calculating/ correcting amounts of such items.
- vi. Only rates quoted shall be considered. Any tender containing percentage below/above the rates quoted is liable to be rejected. Rates quoted by the contractor in item rate tender in figures and words shall be accurately filled in so that there is no discrepancy in the rates written in figures and words. However, if a discrepancy is found, the rates, which correspond with the amount worked out by the contractor, shall, unless otherwise proved, be taken as correct. If the amount of an item is not worked out by the contractor or it does not correspond with the rates written either in figures or in words then the rates quoted by the contractor in words shall be taken as correct. Where the rates quoted by the contractor in figures and in words tally but the amount is not worked out

correctly, the rates quoted by the contractor will, unless otherwise proved, be taken as correct and not the amount.

- vii. Use of correcting fluid, anywhere in tender document is not permitted. Such tender is liable for rejection.
- viii. In event no rate has been quoted for any item(s), leaving space both in figures(s), word(s), and amount blank, it will be presumed that the contractor has included the cost of this/these item(s), in other items and rate for such item(s) will be considered as zero and work will be required to be executed accordingly.
- ix. All rates shall be quoted on the tender form. The amount for each item should be worked out and requisite totals given. Special care should be taken to write the rates in figures as well as in words and the amount in figures only, in such a way that interpolation is not possible. The total amount should be written both in figures and in words. In case of figures, the word 'Rs.' should be written before the figure of rupees and word 'P' after the decimal figures, e.g. 'Rs. 2.15 P' and in case of words, the word, 'Rupees' should precede and the word 'Paise' should be written at the end. Unless the rate is in whole rupees and followed by the word 'only' it should invariably be upto two decimal places. While quoting the rate in schedule of quantities, the word 'only' should be written closely following the amount and it should not be written in the next line.
- x. In the case of any tender where unit rate of any item/items appear unrealistic, such tender will be considered as unbalanced and in case the tender is unable to provide satisfactory explanation, such a tender is liable to be disqualified and rejected.
- xi. All the financial Bids shall be ranked according to the financial Bid with the Bidder quoting the least amount ranked L1, Bidder quoting next higher figure as L2 and so on.
- xii. L1 will be treated as Successful Bidder and his offer will be processed further.

5.4 Letter of Award:

The Successful Bidder would be notified in writing by MoHFW/HLL by issuing the Letter of Award (LOA) in favour of the successful Bidder.

Annexure -I Checklist

CHECK LIST OF DOCUMENTS TO BE SUBMITTED WITH THE BID

TECHNICAL PACKAGE - Part 1			
Sl.No.	Name of Document	No. of sets to be submitted	No. of sets submitted
1	Form of Bid and Appendix thereof (Form A)	Original	
2	Bid Security (Form B) in separate sealed envelope	Original & Copy	
3	Power of attorney for individuals signing on behalf of Bidders(Form E)	Original & Copy	
4	Initialed BID documents	Original	
TECHNICAL PACKAGE - Part 2			
1	Form " Form "T-1" (Financial Information)		
2	Form "T-2"		
3	Form "T-3" (Project under execution of award)		
4	Form "T-4" (Performance Report of Works)		
5	Form "T-5" (Structure and Organization)		
6	Form "T-6" (Details of Technical & Administrative personnel)		
7	Form "T-7" (Details of Construction Plant for carrying out the work)		
8	Form T-8 Criteria for Evaluation of Performance		
FINANCIAL PACKAGE COMPRISING OF:			
1	Financial bid in separate sealed cover		
Note:- Number of sets to be submitted under technical package- Part-II (Sr. Nos. 1 to 8) and Financial Package shall be "Original & Copy" i.e. two numbers.			

Form A-Form of Bid and AppendixFORM OF BID

Name of the Work: SETTING UP OF RESIDENTIAL COMPLEX AT AIIMS RISHIKESH (SH: Balance Building Works-Nurses Hostel)

To
Executive Director (ID)
HLL Lifecare Ltd
B14A, Sector 62, NOIDA -201307
For and on behalf of
Ministry of Health & Family Welfare (MOHFW),

Sub : Submission of Proposal

Having visited the Site, ascertained the Site conditions and examined the General Conditions of Contract as well as Special Conditions of Contract, Notice Inviting Bids, Instructions to Bidders etc. and addenda for the above project, we the undersigned, are pleased to submit our technical and financial Bid along with relevant documents.

1. We acknowledge that the Appendix forms an integral part of the Bid.
2. While preparing this Bid, we have gathered our own information and conducted our own inquiry/survey to our satisfaction and we did not rely solely on the information provided in this BID. We shall not hold MoHFW/HLL responsible on any account in this regard.
3. We undertake, if our Bid is accepted, we shall commence the works within the stipulated time and to complete the whole of the works comprised in the Contract within the stipulated time calculated from the start date.
4. If our Bid is accepted, we will furnish a bank guarantee as Performance security for the due performance of the Contract. The amount and form of such guarantee or bond will be in accordance with as given in the General Conditions of the Contract.
5. We are aware that in the event of delay in execution of the Project, beyond the agreed timelines due to reasons attributable to us, liquidated damages shall be recovered from us as per the conditions of the contract.
6. Our Bid is valid for your acceptance for a period of 180 days from the last date of submission of the Bid or any extension thereto by us.
7. We agree to the General Conditions of Contract and Special Conditions of Contract and the terms and conditions mentioned in the NIB.
8. We declare and confirm that before submission of this Bid no agent, middleman or any intermediary has been, or will be engaged to provide any services, or any other item of work related to the award of this Contract. We further confirm and declare that no agency commission or any payment, which may be construed as an agency commission has been, or will be, paid and that the Bid price does not include any

such amount. We acknowledge the right of MoHFW/HLL to declare our Bid to be non-compliant and if the Contract has been awarded to declare the Contract null and void, if it finds anything contrary to this declaration.

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

10. If our Bid is accepted we understand that we are to be held solely responsible for the due performance of the Contract.

11. We enclose;

a. All documents as per the checklist

b. Bank guarantee for Rs _____ (Rupees _____ only) issued by _____ (name of the bank) valid until _____ towards EMD/Bid Security.

- Note: i. The Appendix forms part of the Bid
- ii. Bidders are required to fill up all the blank spaces in this form of Bid and

Appendix.

Dated this.....day of.....**2014**

Signature

Name..... in the capacity of

duly authorized to sign Bids for and on behalf of.....

Address

.....

.....

Witness – Signature

Name

Address

.....

.....

Appendix**Form A****APPENDIX TO THE FORM OF BID**

i.	Amount of bank guarantee as Performance Guarantee to be deposited by successful bidder	5 percent of the Total Contract Price to be deposited as per Clause 1 of GCC.
ii	Amount of Security Deposit to be recovered from bills of the successful bidder	5% to be retained from the running bills as per Clause 1A of GCC.
iii	Date for commencement of work	15 days from letter of award.
iv.	Time for completion	4 (Four) Months from date of Commencement of work and thereafter 12 months of Defect Liability Period
v.	Amount of liquidated damages in case of extension of completion date due to delays by the Contractor	As given in General Conditions of Contract
vi.	Defects Liability Period from the date of issue of Taking-over certificate / Completion Certificate	12 months
vii.	Period of validity of Performance Security	180 days beyond Defects Liability Period

Signature

(Authorized Signatory)

Date

Place

Name

Address

Form BFORMAT FOR EMD(BID SECURITY)

KNOW ALL MEN by these presents that we (Name of Bank) having our registered office at (Name of country) (hereinafter called "the Bank") are bound unto HLL Lifecare Limited, B-14A, Sector-62, Noida-201307 U.P., in the sum of Rs. _____ for which payment will and truly to be made to the said Client (MOHFW /HLL), the bank binds itself, its successors and assigns by these presents.

WHEREAS.....(Name of Bidder) (hereinafter called "the Bidder") has submitted its Bid dated _____ for **"SETTING UP OF RESIDENTIAL COMPLEX AT AIIMS RISHIKESH (SH: Balance Building Works-Nurses Hostel)"**

AND WHEREAS the Bidder is required to furnish a bank guarantee for the sum of Rs. _____ (Rupees _____ Only) as Bid Security against the Bidder's offer as aforesaid.

AND WHEREAS _____ (Name of Bank) have, at the request of the Bidder, agreed to give this guarantee as hereinafter contained.

1. We further agree as follows :

1.1 That the client (MoHFW /HLL), may without affecting this guarantee grant time or other indulgence to or negotiate further with the Bidder in regard to the conditions contained in the said Bid and thereby modify these conditions or add thereto any further conditions as may be mutually agreed upon between the client (MoHFW /HLL) and the Bidder.

1.2 That the guarantee herein before contained shall not be affected by any change in the constitution of our bank or in the constitution of the Bidder.

1.3 That any account settled between the client (MoHFW /HLL) and the Bidder shall be conclusive evidence against us of the amount due hereunder and shall not be questioned by us.

1.4 That this guarantee commences from the date hereof and shall remain in force till _____ (date to be filled up)

1.5 That the expression 'the Bidder' and 'the Bank' herein used shall, unless such an interpretation is repugnant to the subject or context, include their respective successors and assigns.

2. The conditions of this obligation are :

a) if the Bidder withdraws his Bid during the period of Bid Validity, or

b) if the Bidder does not accept the correction of his Bid Price as corrected by the evaluation committee

c) if the Bidder having been notified of the acceptance of his Bid by the client (MoHFW /HLL) during the period of Bid Validity :

i. fails or refuses to furnish the required Performance Security for the amount equal to 5% of the Contract price and/ or

- ii. fails or refuses to enter into a Contract within 30 days of issue of Letter of Award by the Client (MoHFW/HLL)

We undertake to pay to the client (MoHFW/HLL) up to the above amount upon receipt of his first written demand, without the client (MoHFW/HLL) having to substantiate his demand provided that in his demand the client (MoHFW/HLL) will note that the amount claimed by him is due to him owing to the occurrence of any one or more of the conditions (a), (b), (c) mentioned above, specifying the occurred condition or conditions.

	Signature of
	Authorized Official of the Bank
Signature of the witness	Name of Official
	Designation
Name of the Witness	Stamp/Seal of the Bank
Address of the Witness	

Form-CFORM OF PERFORMANCE SECURITY BANK GUARANTEE

This deed of guarantee made this day of _____ between Bank of _____ (hereinafter called the "Bank") of the one part, and, Ministry of Health & Family Welfare, Government of India (hereinafter called "MoHFW") of the other part.

Whereas ED(ID) HLL for and on behalf of Ministry of Health & Family Welfare, (MoHFW), Government of India, has awarded the Contract "SETTING UP OF RESIDENTIAL COMPLEX AT AIIMS RISHIKESH (SH: Balance Building Works-Nurses Hostel)" to _____ (Name of the Contractor)

AND WHEREAS the Contractor is bound by the said Contract to submit to MOHFW a Performance Security for a total amount of Rs. _____ (Rupees _____ only) (Amount in figures and words).

1. Now we the undersigned _____ (Name of the Bank) being fully authorized to sign and to incur obligations for and on behalf of and in the name of _____ (Full name of Bank), hereby declare that the said Bank will guarantee MoHFW the full amount of Rs. _____ (Rupees _____ only) (Amount in figures and Words) as stated above.
2. After the Contractor has signed the afore mentioned Contract with MoHFW/HLL, the Bank is engaged to pay MoHFW/HLL, any amount up to and inclusive of the aforementioned full amount upon written order from MoHFW/HLL to indemnify MoHFW/ HLL for any liability of damage resulting from any defects or shortcomings of the Contractor or the debts he may have incurred to any parties involved in the works under the Contract mentioned above, whether these defects or shortcomings or debts are actual or estimated or expected. The Bank will deliver the money required by MOHFW immediately on demand without delay without reference to the Contractor and without the necessity of a previous notice or of judicial or administrative procedures and without it being necessary to prove to the Bank the liability or damages resulting from any defects or shortcomings or debts of the Contractor. The Bank shall pay to MOHFW/HLL any money so demanded notwithstanding any dispute/disputes raised by the Contractor in any suit or proceedings pending before any Court, Tribunal or Arbitrator/s relating thereto and the liability under this guarantee shall be absolute and unequivocal.
3. This guarantee is valid till _____ (date to be mentioned) (six months beyond the end of expected Defects Liability Period or the extended period, thereof)

At any time during the period in which this guarantee is still valid, if MoHFW/HLL agrees to grant a time extension to the Contractor or if the Contractor fails to complete the Works within the time of completion as stated in the Contract, or fails to discharge himself of the liability or damages or debts as stated under Para 2, above, it is understood that the Bank will extend this Guarantee under the same

conditions for the required time on demand by MoHFW/HLL and at the cost of the Contractor.

4. The Guarantee shall be interpreted in accordance with the laws of India.
5. The Bank represents that this Bank Guarantee has been established in such form and with such content that is fully enforceable in accordance with its terms as against the Guarantor Bank in the manner provided herein.
6. This Bank Guarantee shall not be affected in any manner by reason of merger, amalgamation, restructuring or any other change in the Constitution of the guarantor Bank or of the Contractor.
7. The neglect or forbearance of MoHFW/HLL in enforcement of payment of any moneys, the payment whereof is intended to be hereby secured or the giving of time by MoHFW/HLL for the payment hereof shall in no way relieve the bank of their liability under this deed.
8. The expressions "MoHFW/HLL", "the Bank" and "the Contractor" herein before used shall include their respective successors and assigns.

In witness whereof I/We of the bank have signed and sealed this guarantee on the - ----- day of ----- (Month) 2014 being herewith duly authorized.

For and on behalf of the.....Bank.

Signature of authorized bank official

Name:

Designation:

Stamp/Seal of the Bank:

Signed, sealed and delivered for and on behalf of the Bank by the above named _____ in the presence of:

Witness 1

Signature

Name

Address

.....

Witness 2

Signature

Name

Address

Form D
(To be furnished on a Non Judicial Stamp Paper of appropriate value)

FORM OF CONTRACT AGREEMENT

This agreement is made at New Delhi on the ---- day of ----- 2014 between President of India acting through Shri -----, ED (ID) HLL for and on behalf of Ministry of Health & Family Welfare, Government of India having its office at Nirman Bhawan, New Delhi-110011, (hereinafter called "Client" which expression shall, unless repugnant to the context or meaning thereof be deemed to mean and include its successors, legal representatives and assigns) of the **First Part.**

Second Part

M/s ----- a Company incorporated under the Companies Act 1956 having Head Office at -----, (hereinafter called the "Contractor" which expression unless repugnant to the context shall mean and include its successors-in-interest assigns etc.) of the **Second Part.**

Whereas MOHFW is desirous that certain works should be executed, for "SETTING UP OF RESIDENTIAL COMPLEX AT AIIMS RISHIKESH (SH: Balance Building Works-Nurses Hostel)" hereinafter called the "The Project" and has accepted a Tender submitted by the contractor for the execution and completion of such works as well as guarantee of such works and the remedying of defects therein. NOW THIS AGREEMENT WITNESSETH as follows:

1. In this agreement words and expression shall have the same meanings as are respectively assigned to them in the Conditions of Contract hereinafter referred to.
2. The following documents shall be deemed to form and be read and construed as part of this agreement Viz.

Volume – I (NIT& ITB)

- Notice Inviting Tender
- Instruction to Bidders

Volume- II (GCC and SCC)

- General Conditions of Contract(GCC)
- Special Conditions of Contract (SCC)

Volume – III (TS)

- Technical Specifications(TS)

Volume – IV (BOQ)

- **(Financial bid and Bill of Quantities)**

All the correspondence till award of contract i.e. addendum, LOA etc., Technical and Financial bids submitted by bidder.

3. In consideration of the payment to be made by MOHFW to the Contractor as hereinafter mentioned, the Contractor hereby covenants with MOHFW to execute and complete the Project "SETTING UP OF RESIDENTIAL COMPLEX AT AIIMS RISHIKESH (SH: Balance Building Works-Nurses Hostel)" and remedy and defects therein in conformity in all respects with the provisions of the Contract.

MOHFW hereby covenants to pay the Contractor in consideration of the execution and completion of the Project and the remedying of defects therein, the total Contract Price of Rs. ----- only) being the sum stated in the Letter of Award (LOA) subject to such additions thereto or deductions there from as may be made under the provisions of the Contract at the times and in the manner prescribed by the Contract.

4. OBLIGATION OF THE CONTRACTOR

The Contractor shall ensure full compliance with tax laws of India with regard to this Contract and shall be solely responsible for the same. The contractor shall keep MOHFW/HLL fully indemnified against liability of tax, interest, penalty etc, of the Contractor in respect thereof, which may arise.

IN WITNESS OF WHEREOF the parties hereto have caused their respective common seals to be hereunto affixed / (or have hereunto set their respective hands and seals) the day and year first above written.

For and on behalf of the Contractor

For and on behalf of the
President of India

Signature of the authorized official

Signature of the authorized
official

Name of the Contractor

Name of the authorized official

Stamp / Seal of the Contractor
official

Stamp / Seal of authorized

SIGNED, SEALED AND DELIVERED

By the said

By the Said

On behalf of the Contractor in
the presence of:

On behalf of the President of India in
the Presence of

Witness

Witness

Name

Name

Address

Address

Form E

Format for Power of Attorney for authorized signatory

FORMAT FOR POWER OF ATTORNEY FOR SIGNING OF PROPOSAL

Know all men by these presents, We.....(Name of the Tenderer and address of their registered office) do hereby constitute, appoint and authorize Mr / Ms.....(name and residential address of Power of Attorney holder) who is presently employed with us and holding the position of

As our attorney, to do in our name and on our behalf, all such acts, deeds and things necessary in connection with or incidental to our Bid for the Project and submission of all documents and providing information / responses to MoHFW/HLL, representing us in all matters before MoHFW/HLL, and generally dealing with MoHFW/HLL in all matters in connection with our proposal for the said Project.

We hereby agree to ratify all acts, deeds and things lawfully done by our said attorney pursuant to this Power of Attorney and that all acts, deeds and things done by our aforesaid attorney shall and shall always be deemed to have been done by us.

Signature:

Name and Designation:

FORM G**LITIGATION DETAILS****Court cases/ Arbitration**

Bidder should provide information on any history of litigation or arbitration resulting from contracts executed in the last five years or currently under execution.

Name of Bidder							
Year	Name of Work	Name of Client with Address	Title of the Court case / Arbitration	Detail of the Court case / Arbitration	Status (Pending/ Decided)	Disputed amount (current value in INR)	Actual Awarded Amount (in INR)

Authorized Signature of bidder with stamp

FORM H**UNDERTAKING
(NOT APPLICABLE)**

We _____ do hereby undertake to engage a specialized agency after approval of MOHFW/HLL Lifecare Limited for undertaking the execution of _____ work components of **“SETTING UP OF RESIDENTIAL COMPLEX AT AIIMS RISHIKESH (SH: Balance Building Works-Nurses Hostel)”** whose minimum qualifications shall be as under:

- A. Average annual financial turnover shall be at least 50 % of the estimated cost during the immediate last three consecutive financial years i.e 2010-11, 2011-12, 2012-13 of respective work components.
- B. **(i)** Experience of having successfully completed work components during the last 7 years ending last day of the month previous to the one in which applications are invited:-

Three similar completed works each costing not less than the amount equal to 40% of the estimated cost put to tender (rounded to nearest Rs. 10 Lac).

Or

Two similar completed works each costing not less than the amount equal to 60% of the estimated cost put to tender (rounded to nearest Rs. 10 Lac).

Or

One similar completed work of cost not less than the amount equal to 80% of the estimated cost put to tender (rounded to nearest Rs. 10 Lac).

And

(ii) One Completed work of any nature (either part of c (i) or a separate one) costing not less than the amount equal to 40% of the estimated cost put to tender with some Central Government Department / State Government Department/Central Autonomous Body /Central Public Sector undertaking/ State Autonomous Body/ State Public Sector Undertaking.

- C. The specialized agencies shall have a valid license from competent authority in the respective field.
- D. I/We shall be solely responsible for quality and successful execution/performance of the completed works by such agencies.
- E. I shall enter into work specific agreement/ MoU with the agency/ agencies approved by MoHFW/HLL, supply a copy of such MoU/ Agreement to MoHFW/HLL and retain them till completion of works in the said field.

Authorized Signature of bidder with stamp

Form K**AFFIDAVIT**

I, the undersigned, do hereby certify that the statements made in the required attachments are true and correct.

The undersigned also hereby certifies that our firm M/S have neither abandoned any contract awarded to us nor such work have been rescinded, during last five years prior to date of application.

The undersigned hereby authorize (s) and request (s) any bank , person, firm or corporation to furnish pertinent information deemed necessary and requested by the MoHFW/HLL to verify this statement or regarding my (our) competence and general reputation.

The under signed understands and agrees that further qualifying information may be requested, and agrees to furnish any such information at the request of the MoHFW/HLL.

Signed by the Authorized officer of the firm

FORM 'T-1'**FINANCIAL INFORMATION**

1. **Financial Analysis**-Details to be furnished duly supported by figures in balance sheet/ profit & loss account for the last five years duly certified by the Chartered Accountant, as submitted by the applicant to the Income tax Department (Copies to be attached) and duly certified by the Chartered Accountant mentioning the membership number issued by ICAI along with full address.

i) **Gross Annual Turnover on construction works** for last five years ending 31.03.2013

ii) **Profit / Loss** for last five years ending 31.03.2013

Financial arrangements for carrying out the proposed work. Solvency certificate from Bankers of the **bidder in the prescribed Form "T-1 B"**.

Signature of Chartered
Accountant with Seal

Signature of Applicant.

FORM 'T-1 B'**FORM OF BANKERS' CERTIFICATE FROM A SCHEDULED BANK**

This is to certify that to the best of our knowledge and information that M/s./Shri having marginally noted address, a customer of our bank are/is respectable and can be treated as good for any engagement upto a limit of Rs. (Rupees.....). This certificate is issued without any guarantee or responsibility on the bank or any of the officers.

(Signature)

For the Bank

NOTE:-

- (1) Bankers certificates should be on letter head of the Bank, sealed in cover addressed to tendering authority.
- (2) In case of partnership firm, certificate should include names of all partners as recorded with the bank.

FORM - 'T - 2'**DETAILS OF WORKS OF SIMILAR NATURE COMPLETED**

**DURING THE LAST SEVEN YEARS ENDING LAST DAY OF THE MONTH PREVIOUS
TO THE ONE IN WHICH THE BIDS ARE INVITED**

Sl. No	Name of Work/ Project & location	Owner of sponsoring Organization	Cost of Work In Lakh)*	Date of Commencement As per contract	Stipulated Date of completion	Actual date of completion	Litigation/ Arbitration Pending/ in Progress with details**	Name & address/ Telephone No. of officer to whom reference may be made	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)

* Indicate gross amount claimed and amount awarded by the Arbitrator.

** Copy of work orders of the above works should also be submitted

Signature of Applicant

FORM 'T - 3'**PROJECT UNDER EXECUTION OR AWARDED**

Sl. No	Name of Work/ Project & location	Owner of sponsoring Organization	Cost of Work	Date of Commencement As per contract	Stipulated Date of completion	Up-to-date Percentage Progress of work	Slow Progress, If any, & reasons thereof	Name & address/ Telephone No. of officer to whom reference may be made	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)

Certified that above lists of works is complete and no work has been left out and that the information given is correct to my knowledge and belief.

Signature of Applicant

FORM 'T - 4'**PERFORMANCE REPORT OF WORKS from Owner/Sponsoring organization/ Department
REFERRED TO IN FORM "T-2" TO "T-3"**

01.	Name of work / Project & Location	
02.	Agreement No.	
03.	Awarded Cost	
04.	Executed Cost	
05.	Date of Start	
06.	Date of completion :	
	i) Stipulated date of completion	
	ii) Actual date of completion	
07.	Amount of compensation levied for delayed completion, if any	
08.	Amount of reduced rate items, if any	
09.	Structures of Building Executed	
	a) No of Stories	
	b) Total height of building	
	c) Type of Structure	
10	Scope of Work	
	a) Civil works	Yes/No
	b) Electrical Work	Yes/No
11.	Performance Report :	
	a) Quality of work	Very Good / Good / Fair / Poor
	b) Financial soundness	Very Good / Good / Fair / Poor
	c) Technical Proficiency	Very Good / Good / Fair / Poor
	d) Resourcefulness	Very Good / Good / Fair / Poor
	e) General behavior	Very Good / Good / Fair / Poor

Dated: _____

Signatures of
Authorized Signatory
Official Seal of Owner/ Sponsoring Organization/ Department

Form 'T - 5'
STRUCTURE & ORGANIZATION

1.	Name & Address of the applicant	
2.	Telephone No. / Telex / Fax No.	
3.	Legal status of the applicant (attach copies of original document defining the legal status)	
	a) An Individual	
	b) A proprietary firm	
	c) A firm in partnership	
	d) A limited company or Corporation	
4.	Particulars of registration with various Government bodies (<i>attach attested photocopy</i>)	
5.	<u>Organization / Place of Registration :</u>	
	1.	
	2.	
	3.	
6.	Particulars of registration with (<i>attach attested photocopy</i>)	
	1. EPFO	
	2. ESIC	
7.	Names and Titles of Directors & Officers with designation to be concerned with this work	
8.	Designation of individuals authorized to act for the organization.	
9.	Was the applicant ever required to suspend construction for a period of more than six months continuously after commencement? If so, give the name of the project and reasons of suspension of work.	
10.	Has the applicant or any constituent partner in case of partnership firm, ever abandoned the awarded work before its completion? If so, give name of the project and reasons for abandonment.	
11.	Has the applicant or any constituent partner in case of partnership firm, ever been debarred/ black-listed for Biding in any organization at any time? If so, give details.	
12.	Has the applicant or any constituent partner in case of partnership firm, ever been convicted by a Court of Law? If so, give details.	
13.	In which field of Civil Engineering construction the applicant has specialization and interest?	
14.	Any other information considered necessary but not included above.	

Signature of Applicant

Form 'T - 6'

**DETAILS OF TECHNICAL & ADMINISTRATIVE
PERSONNEL PROPOSED TO BE EMPLOYED FOR THE WORK**

Sl. No	Designation	Total Number	Number Available For this Work	Name	Qualification	Professional experience and details of work carried out	How these would be involved in this work	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

FORM 'T - 7'**DETAILS OF CONSTRUCTION PLANT AND EQUIPMENT OWNED & LIKELY TO BE USED IN CARRYING OUT THE WORK**

Sl.No.	Name of Equipment	Nos.	Capacity of Type	Age	Condition	Ownership Status			Current Location	Remarks
						Presently	Leased	To be Purch		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Earth Moving Equipment :										
1	Excavator (various sizes)									
Equipment of concrete work										
1.	Concrete mixer (diesel)									
2.	Concrete mixer (electrical)									
3.	Needle vibrator (electrical/ Petrol)									
4.	Table vibrator (electrical/ Petrol)									
Equipment for building work										
1.	Bar bending machine									
2.	Bar cutting machine									
3.	Welding generators									
4.	Welding transformers									
5.	Cube testing machines									
6.	Steel Props									
7.	Steel Shuttering									
Power equipment :										
1	Diesel generators									

(Signature of Bidder)

Form 'T-8'							
CRITERIA FOR EVALUATION OF THE PERFORMANCE OF CONTRACTORS FOR PRE- ELIGIBILITY							
ATTRIBUTES			EVALUATION				
(a)	Financial Strength (20 Marks)		60% marks for minimum eligibility criteria				
	Average Annual Turnover (16 Marks)		100% marks for twice the minimum eligibility criteria or more				
	Solvency Certificate (4 Marks)		In between (i) & (ii) – on pro rata basis				
(b)	Experience of similar class of works (20 marks)		60% marks for minimum eligibility criteria				
			100% marks for twice the minimum eligibility criteria or more				
			In between (i) & (ii) – on pro rata basis				
(c)	Performance on works (Time over run) (20 Marks)						
	Parameter	Calculation for Point	Score			Maximum Points	
		If TOR=	1.0	1.5	2.0	>2.50	20
	(i)	Without Levy of compensation	20	15	10	10	
	(ii)	With Levy of compensation	20	5	0	-5	
	(lii)	Levy of compensation not decided	20	10	0	0	
	TOR = AT/ ST, where AT = Actual Time; ST = Stipulated Time						
	Note:- Marks for value in between the stages indicated above is to be determined by straight line variation method.						
(d)	Performance of Works (Quality) (15 Marks)		Performance		Marks		
			Very Good		15		
			Good		10		
			Fair		5		
			Poor		0		
(e)	Personnel & Establishment (10 Marks)						
	i	Graduate Engineer	3 marks for each – max. 3 marks				
	ii	Diploma Holder Engineer	2 marks for each – max. 4 marks				
	iii	Supervisor/Foreman	1 marks for each – max. 3 marks				
(f)	Plant & Equipment (15 Marks)						
	i	Concrete Mixers	1mark for each upto Max. 2 mark				
	ii	Welding Transformers	2 mark for each upto Maximum 4 marks				
	iii	Steel Props	1 mark for each 4800 cum space, Maximum 4 marks				
	iv	Mortar Mixers	1 mark for each upto Max. 2 marks				
	v	Vibration Compactor	1 mark for each upto Max. 3 mark				
	The bidders qualifying the initial criteria as set out in para 1.3 to 1.4 above will be evaluated for following criteria by scoring method on the basis of details furnished by them.						
a	Financial strength (Form 'A' & 'B') –		Maximum 20 marks				
b	Experience in similar nature of work during last five years (Form 'C')		Maximum 20 marks				
c	Performance on works (Form 'E') –		Maximum 20 marks				

	Time over run	
d	Performance on works (Form 'E') – Quality	Maximum 15 marks
e	Personnel and Establishment (Form "F" & "G")	Maximum 10 marks
f	Plant & Equipment (form "H")	Maximum 15 marks
	Total -	100 marks
<p>Details of Technical & Administrative personnel employed with the firm should be given in the format T-6 and the bidder should indicate no. of technical / administrative personnel which will be deployed for the project. Further in format T-7, the bidder should specifically give the detail of only those plants and equipment which are to be exclusively deployed for the project</p>		
<p>The department reserves the right to fix a benchmark based on the above marking criteria for deciding the technical responsiveness of the bidder.</p>		

**MINISTRY OF HEALTH & FAMILY WELFARE
GOVERNMENT OF INDIA, NEW DELHI**

Tender No. MoHFW /AIIMS-RISHIKESH/ BBW-NH/HLL/ID/2014

**Request for Proposal (RFP)
for**

**SETTING UP OF RESIDENTIAL COMPLEX
AT AIIMS RISHIKESH
(SH: Balance Building Works-Nurses Hostel)**

Volume – II

- General Conditions of Contract(GCC)



B-14A, Sector – 62,
NOIDA (UP) -201307

Phone no: 0120-4071500,
Fax no: 0120-4071513

(March, 2014)

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Section -1
CONDITIONS OF CONTRACT

Definitions

1. The **Contract** means the documents forming the tender and acceptance thereof and the formal agreement executed between the competent authority as indicated in Schedule 'F' on behalf of the President of India and the Contractor, together with the documents referred to therein including these conditions, the specifications, designs, drawings and instructions issued from time to time by the Engineer-in-charge and all these documents taken together, shall be deemed to form one contract and shall be complementary to one another.
2. In the contract the following expressions shall, unless the context otherwise requires, have the meanings, thereby respectively assigned to them:-
 - i) The **Accepting Authority** shall mean the authority mentioned in Schedule 'F'.
 - ii) The **Contractor** shall mean the individual, firm or company, whether incorporated or not, undertaking the works and shall include the legal personal representative of such individual or the persons composing such firm or company, or the successors of such firm or company and the permitted assignees of such individual, firm or company.
 - iii) The **Department** means Ministry of Health and Family Welfare Government of India which invites tenders on behalf of President of India and shall include their legal representatives, nominee, employees and permitted agencies who invite tenders on behalf of Ministry.
 - iv) The **Engineer-in-charge (EIC)** means the Engineer / Officer as mentioned in Schedule 'F' hereunder, authorized by the Department i.e. MoHFW/HLL, who shall supervise and be in charge of the work.
 - v) The **President** means the President of India and his successors.
 - vi) The **Government or Government of India** shall mean the President of India represented by officials of MoHFW.
 - vii) The MoHFW means Ministry of Health & Family Welfare, Government of India.
 - viii) The **Client** shall mean Ministry of Health & Family Welfare, Government of India represented by a Designated Officer
 - ix) The **Consultant/ Project Consultant** shall mean consultant appointed by the Client for implementing of the Project i.e. HLL Lifecare limited, having its corporate office at HLL Bhavan, Poojappura, Thiruvannathapuram-695012, Kerala (HLL).
 - x) The **site** shall mean the land/ or place on, into or through which work is to be executed under the contract or any adjacent land, path or street through which work is to be executed under the contract or any adjacent land, path or street which may be located or used for the purpose of carrying out the contract.
 - xi) The **Expected risk are** risks due to riots(other than those on account of the contractor's employees), war (whether declared or not) invasion, act of foreign enemies, hostilities, civil war, rebellion revolution, insurrection, military or usurped power, any act of Government, damage from aircraft, acts of God, such as earthquake, lightning and unprecedented floods, and other causes over which the contractor has no control and accepted as such by the Accepting Authority or causes solely due to use or occupation by Government of the part of the works in respect of which a certificate of completion has been issued or a cause solely due to Government's faulty design of work.

- xii) **Market rate** shall be the rate as decided by Engineer-in-charge on the basis of the cost of materials and labour at the site where the work is to be executed plus the percentage mentioned in Schedule 'F' to cover, all overheads and profits.
- xiii) **Specifications** means the specification mentioned in Schedule 'F', and, 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.
- xiv) **District Specifications** means the specifications followed by the State Government in the area where the work is to be executed.
- xv) **Schedule(s)** referred to in these conditions shall mean the relevant schedule(s) annexed to the tender papers or the standard Schedule of Rates of the Government mentioned in Schedule 'F' hereunder, with the amendments thereto issued up to the date of receipt of the tender.
- xvi) The **work(s)** shall, unless there be something either in the subject or context repugnant to such construction, be construed and taken to mean the works by or by virtue of the contract contracted to be executed whether temporary or permanent, and whether original, altered, substituted or additional.
- xvii) **Tendered Value** means the value of the entire work as stipulated in the letter of award.
- xviii) **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.
- xix) **Month** means calendar month without regard to the number of days worked or not worked in that month.
- xx) **Week** means seven calendar days without regard to the number of hours worked or not worked in any day in that week.
- xxi) **Day** means a calendar day of 24 hours (beginning and ending at 00 hrs. and 24 hrs. Respectively) irrespective of number of hours worked or not worked in that day.
- xxii) **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.
- xxiii) **Approved** means approved in writing, including subsequent written information of previous verbal approval and "approval" means approval in writing, including as aforesaid.
- xxiv) **As directed** means the direction given by the Engineer In-Charge/Client/ Consultant.
- xxv) **Constructional Plant** means all appliances or things 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.
- xxvi) **Material** means the materials, apparatus, equipment, fittings, fixtures and all such other materials, which are incorporated in the work.
- xxvii) **Drawings** means the drawings prepared and issued by the 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 the Consultant.
- xxviii) **I.S.** means latest revision of particular 'Indian Standards' specification issued by Bureau of Indian Standards.

- xxix) **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.
- xxx) **Permanent Works** means the permanent works to be executed (including Plant) in accordance with the Contract.
- xxxii) **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.
- xxxiii) **Urgent Works** means any urgent works which in the opinion of the Client and/or Consultant 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 for which becomes necessary for safety and security or for any other reason the Client and or Consultant may find it necessary.
- xxxiiii) **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.

Scope and performance

3. Where the context so requires, words imparting the singular only also include the plural or vice versa. Any reference to masculine gender shall whenever required include feminine gender and vice versa.
4. Heading and Marginal notes to these General Conditions of Contract shall not be deemed to form part thereof or be taken into consideration in the interpretation or construction thereof or of the contract.
5. The contractor shall be furnished, free of cost one certified copy of the contract documents except standard specifications, Schedule of rates and such other printed and published documents, together with all drawings as may be forming part of the tender papers. None of these documents shall be used for any purpose other than that of this contract.

Languages & Law

6. 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.

Works to be carried out

7. The work to be carried out under the contract shall, except as otherwise provided in these conditions, include all labour, materials, tools, plants, equipment and transport which may be required in preparation of and for and in the full and entire execution and

completion of the works. The description given in the Schedule of Quantities shall, unless otherwise stated, be held to include wastage of materials, cartage and carriage, carrying and return of empties, hoisting, setting, fitting and fixing in position and all other labour necessary in and for the full entire execution and completion of the work as aforesaid in accordance with good practice and recognized principles.

Sufficiency of tender

8. The contractor shall be deemed to have satisfied himself before tendering as to the correctness and sufficiency of his tender for the works and of the rates and price quoted in the Schedule of Quantities, which rates and price shall, except as otherwise provided, cover all his obligations under the contract and all matters and things necessary for the proper completion and maintenance of the works.

Discrepancies and Adjustment of errors

9. The several documents forming the contract are to be taken as mutually explanatory of one another, detailed drawings being followed in preference to small scale drawings and figured dimensions in preference to scale and specific conditions in preference to general conditions.
- 9.1 In the case of discrepancy between the Schedule of Quantities, the Specifications and /or the Drawings, the following order of preference shall be observed.
- a) Description of Schedule of Quantities
 - b) Particular specification and Specific Condition, if any.
 - c) Drawings
 - d) CPWD Specifications
 - e) Indian Standard Specifications of B.I.S.
 - f) For items not covered by any of the above, the work shall be done, as per sound engineering practices and as directed by the Engineer-in-charge.
- 9.2 If there are varying or conflicting provisions made in any one document forming Part of the contract, Accepting Authority shall be deciding authority with regard to the intention of the document and his decision shall be final and binding on the Contractor.
- 9.3 Any error in description, quantity or rate in schedule of quantities or any omission there from shall not vitiate the contract or release the contractor from the execution of the whole or any part of the works comprised therein according to drawings and specifications or from any of his obligation under the contract.

Errors, Omissions and Discrepancies.

- 10.1 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:
- 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.
- 10.2 Between the duplicate/subsequent copies of the tender and original tender, the original tender shall be taken as correct.
- 10.3 All 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 Engineer-in-charge. In case the Contractor does not agree with the explanation given by the Engineer-in-charge, then the matter, on his written notice, will be referred to the Client and his decision shall be final and binding to the contractor.

- 10.4 In all cases of omissions and /or doubts or discrepancies in any of the items or specifications, a reference shall be made to the Engineer-in-Charge. Elucidation, elaboration or decision of the Engineer-in-charge 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.
- 10.5 Any dispute arising due to typing mistakes/ omissions in the document shall be mutually discussed between Contractor and Engineer-in-charge and the decision of the Engineer-in-charge will be final and binding on the contractor in the matter.

Signing of Contract

11. The successful tenderer/contractor, on acceptance of his tender by the Accepting Authority, shall, within 30 days from the date of issue of LOA for the work, sign the contract consisting of documents as specified.
12. No payment for the work done will be made unless contract is signed by the contractor.

SECTION -2
CLAUSES OF CONTRACT

CLAUSE 1 **Performance Guarantee**

- (i) The contractor shall submit an irrevocable Performance Guarantee of 5% (Five per-cent) of the tendered value in addition to other deposits mentioned elsewhere in the contract for his proper performance of the contract agreement, (not withstanding and / or without prejudice to any other provisions in the contract) within period specified in Schedule 'F' from the date of issue of letter of acceptance. This period can be further extended by the Engineer-in-Charge up to a maximum period as specified in schedule 'F' on written request of the contractor stating the reason for delays in procuring the Performance Guarantee, to the satisfaction of the Engineer-in-Charge. This guarantee shall be in the form of Cash (in case guarantee amount is less than Rs. 10,000/-) or Banker's Cheque of any scheduled bank/ Demand Draft of any scheduled bank/ Pay Order of any scheduled bank (in case guarantee amount is less than Rs. 1,00,000/-) or Guarantee Bonds of any Scheduled Bank or the State Bank of India in accordance with the form annexed hereto.
- (ii) The Performance Guarantee shall be initially valid up to the stipulated date of completion of the Defect Liability Period plus 180 days beyond that. In case the time for completion of work gets enlarged, the contractor shall get the validity of Performance Guarantee extended to cover such enlarged time for completion of work. After recording of the completion certificate for the work including the defect liability period by the Engineer-in-charge, the performance guarantee shall be returned to the contractor, without any interest.
- (iii) The Engineer-in-Charge shall not make a claim under the performance guarantee except for amounts to which the President of India is entitled under the contract (not withstanding and / or without prejudice to any other provisions in the contract agreement) in the event of:
- a) Failure by the contractor to extend the validity of the Performance Guarantee as described herein above, in which event the Engineer-in-Charge may claim the full amount of the Performance Guarantee.
 - b) Failure by the contractor to pay President of India any amount due, either as agreed by the contractor or determined under any of the Clauses / Conditions of the agreement, within 30 days of the service of notice to this effect by Engineer- in-Charge.
- (iv) In the event of the Contract being determined or rescinded under provision of any of the Clause / Condition of the agreement, the performance guarantee shall stand forfeited in full and shall be absolutely at the disposal of the President of India.

CLAUSE 1A **Recovery of Security Deposit**

The person / persons whose tender(s) may be accepted (hereinafter called the contractor) shall permit Government at the time of making any payment to him for work done under the contract to deduct a sum at the rate of 5% of the gross amount of each running bill till the sum along with the sum already deposited as earnest money, will amount to security deposit of 5% of the tendered value of the work. Earnest Money if deposited in the form of FDR/DD shall be adjusted first in the Security Deposit and further recovery of the Security Deposit shall commence only when the up to date amount of Security Deposit starts exceeding the Earnest Money. Such deductions will be made and held by Government by way of Security Deposit unless he / they has / have deposited the amount of Security at the rate mentioned above in case.

All compensations or the other sums of money payable by the contractor under the terms of this contract may be deducted from, or paid by the sale of a sufficient part of his security deposit or from the interest arising there from, or from any sums which may be due to or may become due to the contractor by Government on any account whatsoever and in the event of his Security Deposit being reduced by reason of any such deductions or sale as aforesaid the contractor shall within 10 days make good in cash or fixed deposit receipt tendered by the state Bank of India or by Scheduled Banks or Government Securities (if deposited for more than 12 months) endorsed in favour of the Engineer-in-Charge, any sum or sums which may have been deducted from, or raised by sale of his security deposit or any part thereof. The security deposit shall be collected from the running bills of the contractor at the rates mentioned above and the Earnest money deposited at the time of tenders will be treated as part of the Security Deposit.

The security deposit as deducted above can be released against bank guarantee issued by a scheduled bank, on its accumulations to a minimum of Rs.5 lakh subject to the condition that amount of such bank guarantee, except last one, shall not be less than Rs.5 lakh. Provided further that the validity of bank guarantee including the one given against the earnest money shall be in conformity with provisions contained in clause 17 which shall be extended from time to time depending upon extension of contract granted under provisions of Clause 2 and Clause 5.

CLAUSE 2 Compensation for Delay

If the contractor fails to maintain the required progress in terms of clause 5 or to complete the work and clear the site on or before the contract or extended date of completion, he shall, without prejudice to any other right or remedy available under the law to the Government on account of such breach, pay as agreed compensation the amount calculated at the rates stipulated below as the authority specified in schedule 'F' (whose decision in writing shall be final and binding) may decide on the amount of the tendered value of the work for every completed day / month (as applicable) that the progress remains below that specified in Clause 5 or that the work remains incomplete.

This will also apply to items or group of items for which a separate period of completion has been specified.

Compensation for delay of work

- (i) 1% of tendered value per month, to be computed on a per day basis, for delays up to 3 months.
- (ii) 2% of tendered value, to be computed on a per day basis, per month for delays thereafter i.e. 4 to 6 months, i.e., a delay of 6 months will entail Compensation of 9%.

Provided always that the total amount of compensation for delay beyond 6 months to be paid under this Condition shall not exceed 10% of the Tendered value of the item or group of items of work for which a separate period of completion is originally given.

The amount of compensation may be adjusted or set-off against any sum payable to the Contractor under this or any other contract with the Government. In case, the contractor does not achieve a particular milestone mentioned in schedule 'F, or the re-scheduled milestone(s) in terms of Clause 5.4, the amount shown against that milestone shall be withheld, to be adjusted against the compensation levied at the final grant of Extension of Time. With-holding of this amount on failure to achieve a milestone, shall be automatic without any notice to the contractor. However, if the contractor catches up with the progress of work on the subsequent milestone(s), the withheld amount shall be released. In case the contractor fails to make up for the delay in subsequent milestone(s), amount mentioned against each milestone missed subsequently also shall be withheld. However, no interest, whatsoever, shall be payable on such withheld amount.

CLAUSE 2 A Incentive for early completion

In case, the contractor completes the work ahead of updated stipulated date of completion considering the effect of extra work (to be calculated on pro-rata basis as cost of extra work X stipulated period/ tendered cost), a bonus @ 1% (one per cent) of the tendered value per month computed on per day basis, shall be payable to the contractor, subject to a maximum limit of 5% (five per cent) of the tendered value. This shall be decided by the authority as indicated in Schedule 'F' whose decision shall be final and binding on the Contractor and conveyed to the contractor by the Engineer-in-charge. The amount of bonus/incentive, if payable, shall be paid along with final bill after completion of work. Provided always that provision of the Clause 2A shall be applicable only when so provided in 'Scheduled F'.

CLAUSE 3 When Contract can be Determined

Subject to other provisions contained in this clause, the Client may, without prejudice to his any other rights or remedy against the contractor in respect of any delay, inferior workmanship, any claims for damages and / or any other provisions of this contract or otherwise, and whether the date of completion has or has not elapsed, by notice in writing absolutely determine the contract in any of the following cases:

- (i) If the contractor having been given by the Engineer-in-Charge a notice in writing to rectify reconstruct or replace any defective work or that the work is being performed in an inefficient or otherwise improper or un-workmanlike manner shall omit to comply with the requirement of such notice for a period of seven days thereafter.
- (ii) If the contractor has, without reasonable cause, suspended the progress of the work or has failed to proceed with the work with due diligence so that in the opinion of the Engineer-in-Charge (which shall be final and binding) he will be unable to secure completion of the work by the date for completion and continues to do so after a notice in writing of seven days from the Engineer-in-Charge.
- (iii) If the contractor fails to complete the work within the stipulated date or items of work with individual date of completion, if any stipulated, on or before such date(s) of completion and does not complete them within the period specified in a notice given in writing in that behalf by the Engineer-in-Charge.
- (iv) If the Contractor persistently neglects to carry out his obligations under the contract and / or commits default in complying with any of the terms and conditions of the contract and does not remedy it or take effective steps to remedy it within 7 days after a notice in writing is given to him in that behalf by the Engineer-in-Charge.
- (v) If the contractor shall offer or give or agree to give to any person in Government service or to any other person on his behalf any gift or consideration of any kind as an inducement or reward for doing or forbearing to do or for having done or forborne to do any act in relation to the obtaining or execution of this or any other contract for Government.
- (vi) If the contractor shall enter into a contract with Government in connection with which commission has been paid or agreed to be paid by him or to his knowledge, unless the particulars of any such commission and the terms of payment thereof have been previously disclosed in writing to the Engineer-in- Charge.
- (vii) If the contractor shall obtain a contract with Government as a result of wrong tendering or other non-bonafide methods of competitive tendering.
- (viii) If the contractor being an individual, or if a firm, any partner thereof shall at any time be adjudged insolvent or have a receiving order or order for administration of his estate made against him or shall take any proceedings for liquidation or composition (other than a voluntary liquidation for the purpose of amalgamation or reconstruction) under any

Insolvency Act for the time being in force or make any conveyance or assignment of his effects or composition or arrangement for the benefit of his creditors or purport so to do, or if any application be made under any Insolvency Act for the time being in force for the sequestration of his estate or if a trust deed be executed by him for benefit of his creditors.

- (ix) If the contractor being a company shall pass a resolution or the court shall make an order that the company shall be wound up or if a receiver or a manager on behalf of a creditor shall be appointed or if circumstances shall arise which entitle the court or the creditor to appoint a receiver or a manager or which entitle the court to make a winding up order.
- (x) If the contractor shall suffer an execution being levied on his goods and allow it to be continued for a period of 21 days.
- (xi) If the contractor assigns, transfers, sublets (engagement of labour on a piece- work basis or of labour with materials not to be incorporated in the work, shall not be deemed to be subletting) or otherwise parts with or attempts to assign, transfer, sublet or otherwise parts with the entire works or any portion thereof without the prior written approval of the Engineer-in-Charge.
- (xii) When the work contractor has made himself liable for action under any of the cases aforesaid, the Client on behalf of the President of India shall have powers:
 - (a) To determine the contract as aforesaid (of which termination notice in writing to the contractor under the hand of the Engineer-in-Charge shall be conclusive evidence). Upon such determination, the Earnest Money Deposit, Security Deposit already recovered and Performance Guarantee under the contract shall be liable to be forfeited and shall be absolutely at the disposal of the Government.
 - (b) After giving notice to the contractor to measure up the work of the contractor and to take such whole, or the balance or part thereof, as shall be un-executed out of his hands and to give it to another contractor to complete the work. The contractor, whose contract is determined as above, shall not be allowed to participate in the tendering process for the balance work.

In the event of above courses being adopted by the Client, the contractor shall have no claim to compensation for any loss sustained by him by reasons of his having purchased or procured any materials or entered into any engagement or made any advances on account or with a view to the execution of the work or the performance of the contract. And in case action is taken under any of the provision aforesaid, the contractor shall not be entitled to recover or be paid any sum for any work thereof or actually performed under this contract unless and until the Engineer-in-Charge has certified in writing the performance of such work and the value payable in respect thereof and he shall only be entitled to be paid the value so certified.

CLAUSE 3A

In case, the work cannot be started due to reasons not within the control of the contractor within 1/8th of the stipulated time for completion of work, either party may close the contract. In such eventuality, the Earnest Money Deposit and the Performance Guarantee of the contractor shall be refunded, but no payment on account of interest, loss of profit or damages etc. shall be payable at all.

CLAUSE 4 Contractor liable to pay Compensation even if action not taken under Clause 3

In any case in which any of the powers conferred upon the Client by Clause-3 thereof, shall have become exercisable and the same are not exercised, the non-exercise thereof shall not constitute a waiver of any of the conditions hereof and such powers shall notwithstanding be exercisable in the event of any future case of default by the contractor and the liability of the

contractor for compensation shall remain unaffected. In the event of the Client putting in force all or any of the power vested in him under the preceding clause he may, if he so desires after giving a notice in writing to the contractor, take possession of (or at the sole discretion of the Engineer-in-Charge which shall be final and binding on the contractor) use as on hire (the amount of the hire money being also in the final determination of the Engineer-in-Charge) all or any tools, plant, materials and stores, in or upon the works, or the site thereof belonging to the contractor, or procured by the contractor and intended to be used for the execution of the work / or any part thereof, paying or allowing for the same in account at the contract rates, or in the case of these not being applicable, at current market rates to be certified by the Engineer-in-Charge, whose certificate thereof shall be final, and binding on the contractor, clerk of the works, foreman or other authorized agent to remove such tools, plant, materials, or stores from the premises (within a time to be specified in such notice) in the event of the contractor failing to comply with any such requisition, the Engineer-in-Charge may remove them at the contractor's expense or sell them by auction or private sale on account of the contractor and his risk in all respects and the certificate of the Engineer-in-Charge as to the expenses of any such removal and the amount of the proceeds and expenses of any such sale shall be final and conclusive against the contractor.

CLAUSE 5 Time and Extension for Delay

The time allowed for execution of the Works as specified in the Schedule 'F' or the extended time in accordance with these conditions shall be the essence of the Contract. The execution of the works shall commence from such time period as mentioned in schedule 'F' or from the date of handing over of the site whichever is later. If the Contractor commits default in commencing the execution of the work as aforesaid, Department shall without prejudice to any other right or remedy available in law, be at liberty to forfeit the earnest money & performance guarantee absolutely.

- 5.1** As soon as possible after the Contract is concluded, the Contractor shall submit a Time and Progress Chart for each mile stone and get it approved by the Engineer-in-charge. The Chart shall be prepared in direct relation to the time stated in the Contract documents for completion of items of the works. It shall indicate the forecast of the dates of commencement and completion of various trades of sections of the work and may be amended as necessary by agreement between the Engineer-in-Charge and the Contractor within the limitations of time imposed in the Contract documents, and further to ensure good progress during the execution of the work, the contractor shall in all cases in which the time allowed for any work, exceeds one month (save for special jobs for which a separate programme has been agreed upon) complete the work as per mile stones given in Schedule 'F'.
- 5.2** If the work(s) be delayed by: -
- (i) Force majeure, or
 - (ii) Abnormally bad weather, or
 - (iii) Serious loss or damage by fire, or
 - (iv) Civil commotion, local commotion of workmen, strike or lockout, affecting any of the traders employed on the work, or
 - (v) Delay on the part of other contractors or tradesmen engaged by Department in executing work not forming part of the Contract, or
 - (vi) Non-availability of stores, which are the responsibility of Department to supply, or
 - (vii) Non-availability or break down of tools and Plant to be supplied or supplied by Department or
 - (viii) Any other cause which, in the absolute discretion of the Engineer-in-Charge is beyond the Contractor's control.

then upon the happening of any such event causing delay, the Contractor shall immediately give notice thereof in writing to the Engineer-in-Charge but shall nevertheless use constantly his best endeavours to prevent or make good the delay and shall do all that may be reasonably required to the satisfaction of the Engineer-in-Charge to proceed with the works.

- 5.3** Request for rescheduling of Milestones and extension of time, to be eligible for consideration, shall be made by the Contractor in writing within fourteen days of the happening of the event causing delay on the prescribed form. The contractor may also, if practicable, indicate in such a request the period for which extension is desired.
- 5.4** In any such case the authority as indicated in Schedule F may give a fair and reasonable extension of time and reschedule the milestones for completion of work. Such extension shall be communicated to the Contractor by the Engineer- in-Charge in writing within 3 months of the date of receipt of such request. Non application by the contractor for extension of time shall not be a bar for giving a fair and reasonable extension by the authority as indicated in Schedule F and this shall be binding on the contractor.

CLAUSE 6 Measurements of Work Done

Engineer-in-Charge shall, except as otherwise provided, ascertain and determine by measurement, the value in accordance with the contract of work done.

All measurement of all items having value shall be entered in Measurement Book and / or level field book so that a complete record is obtained of all works performed under the contract.

All measurements and levels shall be taken jointly by Engineer-in-Charge or his authorized representative and by the contractor or his authorized representative from time to time during the progress of the work and such measurements shall be signed and dated by the Engineer-in-Charge and the contractor or their representatives in token of their acceptance. If the contractor objects to any of the measurements recorded, a note shall be made to that effect with reason and signed by both the parties.

If for any reason the contractor or his authorized representative is not available and the work of recording measurements is suspended by the Engineer-in-Charge or his representative, the Engineer-in-Charge and the Department shall not entertain any claim from contractor for any loss or damages on this account. If the contractor or his authorized representative does not remain present at the time of such measurements after the contractor or his authorized representative has been given a notice in writing three (3) days in advance or fails to countersign or to record objection within a week from the date of the measurement, then such measurements recorded in his absence by the Engineer-in-Charge or his representative shall be deemed to be accepted by the Contractor.

The contractor shall, without extra charge, provide all assistance with every appliance, labour and other things necessary for measurements and recording levels.

Except where any general or detailed description of the work expressly shows to the contrary, measurements shall be taken in accordance with the procedure set forth in the specifications notwithstanding any provision in the relevant Standard Method of measurement or any general or local custom. In the case of items which are not covered by specifications, measurements shall be taken in accordance with the relevant standard method of measurement issued by the Bureau of Indian Standards and if for any item no such standard is available, then a mutually agreed method shall be followed.

The contractor shall give, not less than seven days' notice to the Engineer-in-Charge or his authorized representative in-charge of the work, before covering up or otherwise placing beyond the reach of measurement any work in order that the same may be measured and correct dimensions thereof be taken before the same is covered up or placed beyond the reach of measurement and shall not cover up and placed beyond reach of measurement any work without

consent in writing of the Engineer-in-Charge or his authorized representative in-charge of the work who shall within the aforesaid period of seven days inspect the work, and if any work shall be covered up or placed beyond the reach of measurements without such notice having been given or the Engineer-in- Charge's or his authorized representative's consent being obtained in writing, the same shall be uncovered at the Contractor's expense, or in default thereof no payment or allowance shall be made for such work or the materials with which the same was executed.

Engineer-in-Charge or his authorized representative may cause either themselves or through another officer of the department to check the measurements recorded jointly or otherwise as aforesaid and all provisions stipulated herein above shall be applicable to such checking of measurements or levels.

It is also a term of this contract that recording of measurements of any item of work in the measurement book and / or its payment in the interim, on account or final bill shall not be considered as conclusive evidence as to the sufficiency of any work or material to which it relates nor shall it relieve the contractor from liabilities from any over measurement or defects noticed till completion of the defects liability period.

CLAUSE 6A Computerized Measurement Book

Engineer-in-Charge shall, except as otherwise provided, ascertain and determine by measurement the value of work done in accordance with the contract.

All measurements of all items having financial value shall be entered by the contractor and compiled in the shape of the Computerized Measurement Book having pages A-4 size as per the format of the CPWD so that a complete record is obtained of all the items of works performed under the contract.

All such measurements and levels recorded by the contractor or his authorized representative from time to time, during the progress of the work, shall be got checked by the contractor from the Engineer-in-Charge or his authorized representative as per interval or program fixed in consultation with Engineer-in-Charge or his authorized representative. After the necessary corrections made by the Engineer-in-Charge or his authorized representative, the measurement sheets shall be returned to the contractor for incorporating the corrections and for resubmission to the Engineer-in-Charge or his authorized representative for the dated signatures by the Engineer-in-Charge and the contractor or their representatives in token of their acceptance.

Whenever bill is due for payment the contractor would initially submit draft computerized measurement sheets and these measurements would be got checked / test checked from the Engineer-in-Charge and / or his authorized representative. The contractor will, thereafter incorporate such changes as may be done during these checks / test checks in his draft computerized measurements, and submit to the department a computerized measurement book, duly bound, and with its pages machine numbered. The Engineer-in-Charge and / or his authorized representative would thereafter check this MB, and record the necessary certificates for their checks / tests checks.

The final, fair computerized measurement book given by the contractor, duly bound, with its pages machine numbered, should be 100% correct, and no cutting or over-writing in the measurements would thereafter be allowed. If at all any error is noticed, the contractor shall have to submit a fresh computerized MB with its pages duly machine numbered and bound, after getting the earlier MB cancelled by the department. Thereafter, the MB shall be taken in the Project Cell established at site, and allotted a number as per the Register of Computerized MBs. This should be done before the corresponding bill is submitted to the Project Cell for payment. The contractor shall submit two spare copies of such computerized MB's for the purpose of reference and record by the various officers of the Engineer-in-charge or his authorized representative or the Department.

The contractor shall also submit to the Engineer-in-charge or his authorized representative separately his computerized Abstract of Cost and the bill based on these measurements, duly bound, and its pages machine numbered along with two spare copies of the "bill. Thereafter, this bill will be processed by the Project Cell and allotted a number as per the computerized record in the same way as done for the measurement book meant for measurements.

The contractor shall, without extra charge, provide all assistance with every appliance, labour computer, printer and its consumable and other things necessary for checking of measurement / levels as per required by the Engineer-in-Charge or his representative.

Except where any general or detailed description of the work expressly shows to the contrary, measurement shall be taken in accordance with the procedure set forth in the specifications notwithstanding any provision in the relevant Standard Method of measurement or any general or local custom. In the case of items which are not covered by specifications, measurements shall be taken in accordance with the relevant standard method of measurement issued by the Bureau of Indian Standards and if for any item no such standard is available then a mutually agreed method shall be followed.

The contractor shall give not less than seven days' notice to the Engineer-in-Charge or his authorized representative in charge of the work before covering up or otherwise placing beyond the reach of checking and / or test checking and / or test checking the measurement of any work in order that the same may be checked and / or test checked and correct dimensions thereof be taken before the same is covered up or placed beyond the reach of checking and / or test checking measurement and shall not cover up and place beyond reach of measurement any work without consent in writing of the Engineer-in-Charge or his authorized representative in-charge of the work who shall within the aforesaid period of seven days inspect the work, and if any work shall be covered up or placed beyond the reach of checking and/or test checking measurements without such notice having been given or the Engineer-in-Charge's or his authorized representative's consent being obtained in writing the same shall be uncovered at the Contractor's expense, or in default thereof no payment or allowance shall be made for such work or the materials with which the same was executed.

Engineer-in-Charge or his authorized representative may cause either themselves or through another officer of the department to check the measurements recorded by contractor and all provisions stipulated herein above shall be applicable to such checking of measurements or levels.

It is also a term of this contract that checking and / or test checking the measurements of any item of work in the measurement book and / or its payment in the interim, on account of final bill shall not be considered as conclusive evidence as to the sufficiency of any work or material to which it relates nor shall it relieve the contractor from liabilities from any over measurement or defects noticed till completion of the defects liability period.

CLAUSE 7 Payment on Intermediate Certificate to be Regarded as Advances

No payment shall be made for work, estimated to cost Rs. Twenty Thousand or less till after the whole of the work shall have been completed and certificate of completion given. For works estimated to cost over Rs. Twenty thousand, the interim or running account bills shall be submitted by the contractor for the work executed on the basis of such recorded measurements on the format as approved by the Engineer-in-Charge in triplicate on or before the date of every month fixed for the same by the Engineer-in-Charge. The contractor shall not be entitled to be paid any such interim payment if the gross work done together with net payment / adjustment of advances for material collected, if any, since the last such payment is less than the amount specified in Schedule 'F', in which case the interim bill shall be prepared on the appointed date of the month after the requisite progress is achieved. Engineer-in-Charge shall arrange to have the bill verified by taking or causing to be taken, where necessary, the requisite measurements of the work. In the event of the failure of the contractor to submit the bills, Engineer-in-Charge shall

prepare or cause to be prepared such bills in which event no claims whatsoever due to delays on payment including that of interest shall be payable to the contractor. Payment on account of amount admissible shall be made by the Engineer-in-Charge certifying the sum to which the contractor is considered entitled by way of interim payment at such rates as decided by the Engineer-in-Charge. The amount admissible shall be paid within thirty days after the day of certification of the bill by the Engineer-in-Charge or his authorised representative together with the account of the material issued by the department, or dismantled materials, if any along with all required supporting documents.

All such interim payments shall be regarded as payment by way of advances against final payment only and shall not preclude the requiring of bad, unsound and imperfect or unskilled work to be rejected, removed, taken away and reconstructed or re-erected. Any certificate given by the Engineer-in-Charge relating to the work done or materials delivered forming part of such payment, may be modified or corrected by any subsequent such certificate(s) or by the final certificate and shall not by itself be conclusive evidence that any work or materials to which it relates is / are in accordance with the contract and specifications. Any such interim payment, or any part thereof shall not in any respect conclude, determine or affect in any way powers of the Engineer-in-Charge under the contract or any of such payments be treated as final settlement and adjustment of accounts or in any way vary or affect the contract.

Pending consideration of extension of date of completion, interim payments shall continue to be made as herein provided without prejudice to the right of the department to take action under the terms of this contract for delay in the completion of work, if the extension of date of completion is not granted by the competent authority.

However, the Engineer-in-Charge in his sole discretion on the basis of a certificate from the his authorized representative in-charge of the work at site make interim advance payments at 75% of the assessed value, without detailed measurements, against the monthly bill for work done. The advance payment so allowed shall be adjusted in the subsequent interim bill by taking detailed measurements thereof.

CLAUSE 8 Completion Certificate and Completion Plans

Within ten days of the completion of the work, the contractor shall give notice of such completion to the Engineer-in-Charge and within thirty days of the receipt of such notice the Engineer-in-Charge shall inspect the work and if there is no defect in the work, shall furnish the contractor with a final certificate of completion, otherwise a provisional certificate of physical completion indicating defects (a) to be rectified by the contractor and / or (b) for which payment will be made at reduced rates, shall be issued. But no final certificate of completion shall be issued, nor shall the work be considered to be complete until the contractor shall have removed from the premises on which the work shall be executed all scaffolding, surplus materials, rubbish and all huts and sanitary arrangements required for his / their work people on the site in connection with the execution of the works as shall have been erected or constructed by the contractor(s) and cleaned off the dirt from all wood work, doors, windows, walls, floor or other parts of the building, in, upon, or about which the work is to be executed or of which he may have had possession for the purpose of the execution; thereof, and not until the work shall have been measured by the Engineer-in-Charge. If the contractor shall fail to comply with the requirements of this Clause as to removal of scaffolding, surplus materials and rubbish and all huts and sanitary arrangements as aforesaid and cleaning off dirt on or before the date fixed for the completion of work, the Engineer-in-Charge may at the expense of the contractor remove such scaffolding, surplus materials and rubbish etc. and dispose of the same as he thinks fit and clean off such dirt as aforesaid, and the contractor shall have no claim in respect of scaffolding or surplus materials as aforesaid except for any sum actually realized by the sale thereof.

CLAUSE 8A Contractor to keep Site Clean

When the annual repairs and maintenance of works are carried out, the splashes and droppings from white washing, colour washing, painting etc., on walls, floor, windows, etc shall be removed

and the surface cleaned simultaneously with the completion of these items of work in the individual rooms, quarters or premises etc. where the work is done without waiting for the actual completion of all the other items of work in the contract. In case the contractor fails to comply with the requirements of this clause, the Engineer-in-Charge shall have the right to get this work done at the cost of the contractor either departmentally or through any other agency. Before taking such action the Engineer-in-Charge shall give ten days' notice in writing to the contractor.

CLAUSE 8B **Completion Plans to be Submitted by the Contractor**

The contractor shall submit completion plan required as specification mentioned in Schedule "F" within thirty days of the completion of the work.

In case, the contractor fails to submit the completion plans as aforesaid, he shall be liable to pay a sum equivalent to 2.5% of the value of the work subject to a ceiling of Rs.50,00,000 (Rs.Fifty lakhs only) as may be fixed by the Engineer-in-charge and in this respect the decision of the Engineer-in-charge shall be final and binding on the contractor.

CLAUSE 9 **Payment of Final Bill**

The final bill shall be submitted by the contractor in the same manner as specified in interim bills within three months of physical completion of the work or within one month of the date of the final certificate of completion furnished by the Engineer-in-Charge whichever is earlier. No further claims shall be made by the contractor after submission of the final bill and these shall be deemed to have been waived and extinguished. Payment of those items of the bill in respect of which there is no dispute and of items in dispute, for quantities and rates as approved by Engineer-in-Charge, will, as far as possible be made within the period of six months reckoned from the date of receipt of the bill by the Engineer-in-Charge or his authorized Engineer, complete with account of materials issued by the Department and dismantled materials along with all supporting documents.

CLAUSE 9A **Payment of Contractor's Bills to Bank**

Payments due to the contractor may, if so desired by him, be made to his bank, registered financial, co-operative or thrift societies or recognized financial institutions instead of direct to him provided that the contractor furnishes to the Engineer-in-Charge (1) an authorization in the form of a legally valid document such as a power of attorney conferring authority on the bank; registered financial, co-operative or thrift societies or recognized financial institutions to receive payments and (2) his own acceptance of the correctness of the amount made out as being due to him by Government or his signature on the bill or other claim preferred against Government before settlement by the Engineer-in-Charge of the account or claim by payment to the bank, registered financial, co-operative or thrift societies or recognized financial institutions. While the receipt given by such banks; registered financial, co-operative or thrift societies or recognized financial institutions shall constitute a full and sufficient discharge for the payment, the contractor shall whenever possible present his bills duly receipted and discharged through his bank, registered financial, co-operative or thrift societies or recognized financial institutions.

Nothing herein contained shall operate to create in favour of the bank; registered financial, co-operative or thrift societies or recognized financial institutions any rights or equities vis-à-vis the President Of India.

CLAUSE 10 **Materials supplied by the HLL / Government**

Materials which HLL/ Government will supply are shown in Schedule 'B' which also stipulates quantum, place of issue and rate(s) to be charged in respect thereof. The contractor shall be bound to procure them from the Engineer-in-Charge.

As soon as the work is awarded, the contractor shall finalize the programme for the completion of work as per clause 5 of this contract and shall give his estimates of materials required on the basis of drawings/or schedule of quantities of the work. The Contractor shall give in writing his requirement to the Engineer-in-Charge which shall be issued to him keeping in view the progress of work as assessed by the Engineer-in-Charge, in accordance with the agreed phased programme of work indicating monthly requirements of various materials. The contractor shall place his indent in writing for issue of such materials at least 7 days in advance of his requirement.

Such materials shall be supplied for the purpose of the contract only and the value of the materials so supplied at the rates specified in the aforesaid schedule shall be set off or deducted, as and when materials are consumed in items of work (including normal wastage) for which payment is being made to the contractor, from any sum then due or which may therefore become due to the contractor under the contract or otherwise or from the security deposit. At the time of submission of bills, the contractor shall certify that balance of materials supplied is available at site in original good condition.

The contractor shall submit along with every running bill (on account or interim bill) material wise reconciliation statements supported by complete calculations reconciling total issue, total consumption and certified balance (diameter/section-wise in the case of steel) and resulting variations and reasons therefore. Engineer-in-Charge shall (whose decision shall be final and binding on the contractor) be within his rights to follow the procedure of recovery in clause 42 at any stage of the work if reconciliation is not found to be satisfactory.

The contractor shall bear the cost of getting the material issued, loading, transporting to site, unloading, storing under cover as required, cutting assembling and joining the several parts together as necessary. Notwithstanding anything to the contrary contained in any other clause of the contract and (or the CPWD Code) all stores/materials so supplied to the contractor or procured with the assistance of the Government shall remain the absolute property of Government and the contractor shall be the trustee of the stores/materials, and the said stores/ materials shall not be removed/disposed off from the site of the work on any account and shall be at all times open to inspection by the Engineer-in-Charge or his authorized agent. Any such stores/materials remaining unused shall be returned to the Engineer-in-Charge in as good a condition in which they were originally supplied at a place directed by him, at a place of issue or any other place specified by him as he shall require, but in case it is decided not to take back the stores/ materials the contractor shall have no claim for compensation on any account of such stores/ materials so supplied to him as aforesaid and not used by him or for any wastage in or damage to in such stores/materials.

On being required to return the stores/materials, the contractor shall hand over the stores/materials on being paid or credited such price as the Engineer-in-Charge shall determine, having due regard to the condition of the stores/materials. The price allowed for credit to the contractor, however, shall be at the prevailing market rate not exceeding the amount charged to him, excluding the storage charge, if any. The decision of the Engineer-in-Charge shall be final and conclusive. In the event of breach of the aforesaid condition, the contractor shall in addition to throwing himself open to account for contravention of the terms of the licenses or permit and/or for criminal breach of trust, be liable to Government for all advantages or profits resulting or which in the usual course would have resulted to him by reason of such breach. Provided that the contractor shall in no case be entitled to any compensation or damages on account of any delay in supply or non-supply thereof all or any such materials and stores provided further that the contractor shall be bound to execute the entire work if the materials are supplied by the Government within the original scheduled time for completion of the work plus 50% thereof or schedule time plus 6 months whichever is more if the time of completion of work exceeds 12 months, but if a part of the materials only has been supplied within the aforesaid period, then the contractor shall be bound to do so much of the work as may be possible with the materials and stores supplied in the aforesaid period. For the completion of the rest of the work, the contractor shall be entitled to such extension of time as may be determined by the Engineer-in-Charge whose decision in this regard shall be final and binding on the contractor.

The contractor shall see that only the required quantities of materials are got issued. Any such material remaining unused and in perfectly good/ original condition at the time of completion or determination of the contract shall be returned to the Engineer-in- Charge at the stores from which it was issued or at a place directed by him by a notice in writing. The contractor shall not be entitled for loading, transporting, unloading and stacking of such unused material except for the extra lead, if any involved, beyond the original place of issue.

CLAUSE 10A Materials to be provided by the Contractor

The contractor shall, at his own expense, provide all materials, required for the works, other than those which are stipulated to be supplied by the Government.

The contractor shall, at his own expense and without delay, supply to the Engineer-in- Charge or his authorized representative samples of materials to be used on the work and shall get these approved in advance. All such materials to be provided by the Contractor shall be in conformity with the specifications laid down or referred to in the contract. The contractor shall, if requested by the Engineer-in-Charge furnish proof, to the satisfaction of the Engineer-in-Charge that the materials so comply. The Engineer- in-Charge or his authorized representative shall within thirty days of supply of samples or within such further period as he may require intimate to the Contractor in writing whether samples are approved by him or not. If samples are not approved, the Contractor shall forthwith arrange to supply to the Engineer-in-Charge or his authorized representative for his approval, fresh samples complying with the specifications laid down in the contract. When materials are required to be tested in accordance with specifications, approval of the Engineer-in-Charge shall be issued after the test results are received.

The Contractor shall at his risk and cost submit the samples of materials to be tested or analyzed and shall not make use of or incorporate in the work any materials represented by the samples until the required tests or analysis have been made and materials finally accepted by the Engineer-in-Charge. The Contractor shall not be eligible for any claim or compensation either arising out of any delay in the work or due to any corrective measures required to be taken on account of and as a result of testing of materials.

The contractor shall, at his risk and cost, make all arrangements and shall provide all facilities as the Engineer-in-Charge or his authorized representative may require for collecting, and preparing the required number of samples for such tests at such time and to such place or places as may be directed by the Engineer-in-Charge or his authorized representative and bear all charges and cost of testing unless specifically provided for otherwise elsewhere in the contract or specifications. The Engineer-in- Charge or his authorized representative shall at all times have access to the works and to all workshops and places where work is being prepared or from where materials, manufactured articles or machinery are being obtained for the works and the contractor shall afford every facility and every assistance in obtaining the right to such access.

The Engineer-in-Charge shall have full powers to require the removal from the premises of all materials which in his opinion are not in accordance with the specifications and in case of default, the Engineer-in-Charge shall be at liberty to employ at the expense of the contractor, other persons to remove the same without being answerable or accountable for any loss or damage that may happen or arise to such materials. The Engineer-in-Charge shall also have full powers to require other proper materials to be substituted thereof and in case of default, the Engineer-in-Charge may cause the same to be supplied and all costs which may attend such removal and substitution shall be borne by the Contractor.

Wherever different pattern/ design/ quality of materials with same specifications/ make as specified in the contract is available in the market, Engineer-in-Charge will be sole authority to decide pattern/ design/ quality of the material which shall be final and binding on the contractor.

The contractor shall at his own expense, provide a material testing lab at the site for conducting routine field tests. The lab shall be equipped at least with the testing equipment as specified in schedule F. In addition, equipment for carrying out various tests (except chemical analysis) on

basic materials i.e. cement, fine aggregate, coarse aggregate & bricks shall be kept in the site lab. Contractor shall employ sufficient manpower to ensure that all tests are carried out in accordance with the periodicity specified in relevant IS.

CLAUSE 10B Secured Advance on Non-perishable Materials

- (i) The contractor, on signing an indenture in the form to be specified by the Engineer-in-Charge, shall be entitled to be paid during the progress of the execution of the work up to 90% of the assessed value of any materials or an amount not exceeding 90% of the material element cost in the tendered rate of the finished item of work, whichever is lower which are in the opinion of the Engineer-in-Charge non-perishable, non-fragile and non-combustible and are in accordance with the contract and which have been brought on the site in connection therewith and are adequately stored and/or protected against damage by weather or other causes but which have not at the time of advance been incorporated in the works. When materials on account of which an advance has been made under this sub-clause are incorporated in the work, the amount of such advance shall be recovered / deducted from the next payment made under any of the clause or clauses of this contract.

Such secured advance shall also be payable on other items of perishable nature, fragile and combustible with the approval of the Engineer-in-Charge provided the contractor provides a comprehensive insurance cover for the full cost of such materials. The decision of the Engineer-in-Charge shall be final and binding on the contractor in this matter. No secured advance, shall however, be paid on high-risk materials such as ordinary glass, sand, petrol, diesel etc.

(ii) Mobilization Advance

Mobilization advance not exceeding 10% of the tendered value may be given, if requested by the contractor in writing within one month of the order to commence the work. Such advance shall be in two or more instalments to be determined by the Engineer-in-Charge at his sole discretion. The first instalment of such advance shall be released by the Engineer-in-Charge to the contractor on a request made by the contractor to the Engineer-in-Charge in this behalf. The second and subsequent instalments shall be released by the Engineer-in-Charge only after the Contractor furnishes a proof of the satisfactory utilization of the earlier instalments to the entire satisfaction of the Engineer-in-Charge.

Before any instalment of advance is released, the Contractor shall execute a Bank Guarantee Bond from Scheduled Bank for the amount of advance & valid for the Contract Period. This shall be kept renewed from time to time to cover the balance amount and likely period of complete recovery, together with interest.

Provided always the provision of Clause 10 B (ii) shall be applicable only when so provided in 'Schedule F'.

(iii) Plant Machinery & Shuttering Material Advance

An advance for plant, machinery & shuttering material required for the work and brought to site by the contractor may be given if requested by the contractor in writing within one month of bringing such plant and machinery to site. Such advance shall be given on such plant and machinery, which in the opinion of the Engineer-in-Charge will add to the expeditious execution of work and improve the quality of work. The amount of advance shall be restricted to 5% per-cent of the tender value. In the case of new plant and equipment to be purchased for the work, the advance shall be restricted to 90% of the price of such new plant and equipment paid by the contractor for which the contractor shall produce evidence satisfactory to the Engineer-in-Charge. In the case of second hand and used plants and equipment, the amount of such advance shall be limited to 50% of the

depreciated value of plant and equipment as may be decided by the Engineer-in- Charge. The contractor shall, if so required by the Engineer-in-Charge, submit the statement of value of such old plant and equipment duly approved by a Registered Valuer recognized by the Central board of Direct Taxes under the Income-Tax Act, 1961. No such advance shall be paid on any plant and equipment of perishable nature and on any plant and equipment of a value less than Rs.50,000/- Seventy five per cent of such amount of advance shall be paid after the plant & equipment is brought to site and balance twenty five per-cent on successfully commissioning the same.

Leasing of equipment shall be considered at par with purchase of equipment and shall be covered by tripartite agreement with the following:

1. Leasing company which gives certificate of agreeing to lease equipment to the contractor.
2. Engineer-in-Charge, and
3. The contractor.

This advance shall further be subject to the condition that such plant and equipment (a) are considered by the Engineer-in-Charge to be necessary for the works; (b) and are in working order and are maintained in working order; (c) hypothecated to the Government as specified by the Engineer-in-Charge before the payment of advance is released. The contractor shall not be permitted to remove from the site such hypothecated plant and equipment without the prior written permission of the Engineer-in-Charge. The contractor shall be responsible for maintaining such plant and equipment in good working order during the entire period of hypothecation failing which such advance shall be entirely recovered in lump sum. For this purpose, steel scaffolding and form work shall be treated as plant and equipment.

The contractor shall insure the Plant and Machinery for which mobilization advance is sought and given, for a sum sufficient to provide for their replacement at site. Any amounts not recovered from the insurer will be borne by the contractor.

Provided always the provision of Clause 10 B (iii) shall be applicable only when so provided in 'Schedule F'.

(iv) Interest & Recovery

The mobilization advance and plant and machinery advance in (ii) & (iii) above bear simple interest at the rate of 10 per cent per annum and shall be calculated from the date of payment to the date of recovery, both days inclusive, on the outstanding amount of advance. Recovery of such sums advanced shall be made by the deduction from the contractors bills commencing after first ten per cent of the gross value of the work is executed and paid, on pro-rata percentage basis to the gross value of the work billed beyond 10% in such a way that the entire advance is recovered by the time eighty per cent of the gross value of the contract is executed and paid, together with interest due on the entire outstanding amount up to the date of recovery of the instalment. However, the net up to date interest on the mobilization advance and plant and machinery advance in (ii) & (iii) above would be deducted from all payments released to the Contractors beginning the first interim certificate.

- (v) If the circumstances are considered reasonable by the Engineer-in-Charge, the period mentioned in (ii) and (iii) for request by the contractor in writing for grant of mobilization advance and plant and equipment advance may be extended in the discretion of the Engineer-in-Charge.
- (vi) The said Bank Guarantee for advances shall initially be made for the full amount and valid for the contract period, and be kept renewed from time to time to cover the balance amount and likely period of complete recovery together with interest.

CLAUSE 10C Payment on Account of Increase in Prices/Wages due to Statutory Order(s)

If after submission of the tender, the price of any material incorporated in the works (excluding the materials covered under Clause 10CA and not being a material supplied from the Engineer-in-Charge's stores in accordance with Clause 10 thereof) and/or wages of labour increases as a direct result of the coming into force of any fresh law, or statutory rule or order (but not due to any changes in sales tax/VAT) beyond the prices/wages prevailing at the time of the last stipulated date of receipt of tenders including extensions, if any, for the work during contract period including the justified period extended under the provisions of Clause 5 of the Contract without any action under Clause 2, then the amount of contract shall accordingly be varied and provided further that any such increase shall be limited to the price/wages prevailing at the time of stipulated date of completion or as prevailing for the period under consideration, whichever is less.

If after submission of the tender, the price of any material incorporated in the works (excluding the materials covered under Clause 10CA and not being a material supplied from the Engineer-in-Charge's stores in accordance with Clause 10 thereof) and/or wages of labour as prevailing at the time of last stipulated date of receipt of tender including extensions, if any, is decreased as a direct result of the coming into force of any fresh law or statutory rules or order (but not due to any changes in sales tax/VAT), Government shall in respect of materials incorporated in the works (excluding the materials covered under Clause 10CA and not being materials supplied from the Engineer-in-Charge's stores in accordance with Clause-10 hereof) and/or labour engaged on the execution of the work after the date of coming into force of such law statutory rule or order be entitled to deduct from the dues of the contractor, such amount as shall be equivalent to the difference between the prices of the materials and/or wages as prevailed at the time of the last stipulated date for receipt of tenders including extensions if any for the work and the prices of materials and/or wages of labour on the coming into force of such law, statutory rule or order. This will be applicable for the Contract period including the justified period extended under the provisions of Clause 5 of the Contract without any action under Clause 2.

Engineer-in-charge may call books of account and other relevant documents from the contractor to satisfy himself about reasonability of increase in prices of materials and wages.

The Contractor shall, within a reasonable time of his becoming aware of any alteration in the price of any such materials and/or wages of labour, give notice thereof to the Engineer-in-Charge stating that the same is given pursuant to this condition together with all information relating thereto which he may be in position to supply.

For this purpose, the labour component of the work executed during the period under consideration shall be the percentage as specified in Schedule F, of the value of work done during that period and the increase/decrease in labour shall be considered on the minimum daily wages in rupees of any unskilled adult male mazdoor, fixed under any law, statutory rule or order.

CLAUSES 10 CA Payment due to variation in prices of materials after receipt of tender

If after submission of the tender, the price of materials specified in Schedule F increases/decreases beyond the price(s) prevailing at the time of the last stipulated date for receipt of tenders (including extensions, if any) for the work, then the amount of the contract shall accordingly be varied and provided further that any such variations shall be effected for stipulated period of Contract including the justified period extended under the provisions of clause 5 of the contract without any action under Clause 2.

However for work done/during the justified period extended as above, it will be limited to indices prevailing at the time of stipulated date of completion or as prevailing for the period under consideration, whichever is less.

The increase/decrease in prices of cement, steel reinforcement and structural steel shall be determined by the Price Indices issued by the Director General (Works), CPWD. For other items

provided in the Schedule 'F', these shall be determined by the All India Wholesale Price Indices of Materials as published by economic Advisor to government of India, Ministry of commerce and Industry and base price for cement, steel reinforcement and structural steel as issued under the authority of Director General (Works) CPWD applicable for Delhi including Noida, Gurgaon, Faridabad & Ghaziabad and for other places as issued under the authority of the Zonal Chief Engineer, CPWD and base price of other materials issued by concerned Zonal Chief Engineer as indicated in Schedule 'F' as valid on the last stipulated date of receipt of tender, including extension if any and for the period under consideration. In case, price index of a particular material is not issued by Ministry of Commerce and Industry, then the price index of nearest similar material as indicated in Schedule 'F' shall be followed.

The amount of the contract shall accordingly be varied for all such materials and will be worked out as per the formula given below for individual material:-

Adjustment for component of individual material

Where,

$$V = \frac{P \times Q \times CI - CIO}{CIO}$$

V = Variation in material cost i.e. increase or decrease in the amount in rupees to be paid or recovered.

P = Base Price of material as mentioned in Schedule 'F'.

Q = Quantity of material brought at site for bonafide use in the works since previous bill.

CIO = Price Index for cement, steel reinforcement bars and structural steel as issued by the DG(W), CPWD as valid on the last stipulated date of receipt of tenders including extensions, if any. For other items, if any, provided in Schedule 'F', All India wholesale Price Index for the material as published by the economic Advisor to government of India, Ministry of Industry and Commerce as valid on the last stipulated date of receipt of tenders including extensions, if any.

CI = Price Index for cement, steel reinforcement bars and structural steel as issued by the DG(W), CPWD for the period under consideration. For other items, if any, provided in Schedule 'F' All India Wholesale Price Index for the material for period under consideration as published by Economic advisor to Government of India, Ministry of Industry and Commerce.

Note:

(i) In respect of the justified period extended under the provisions of clause 5 of the contract without any action under clause 2, the index prevailing at the time of stipulated date of completion or the prevailing index of the period under consideration, whichever is less, shall be considered.

Provided always that provisions of preceding clause 10 C shall not be applicable in respect of Materials covered in this clause.

(ii) If during the progress of work or at the time of completion of work, it is noticed that any material brought to site is in excess of requirement, then amount of escalation if paid earlier on such excess quantity of material shall be recovered on the basis of cost indices as applied at the time of payment of escalation or as prevailing at the time of effecting recovery, whichever is higher.

CLAUSE 10 CC (As per Schedule-F)

Payment due to Increase/Decrease in Prices/Wages (excluding materials covered under clause 10CA) after Receipt of Tender for Works

If the prices of materials (not being materials supplied or services rendered at fixed prices by the

department in accordance with clause 10 & 34 thereof) and/or wages of labour required for execution of the work increase the contractor shall be compensated for such increase as per provisions detailed below and the amount of the contract shall accordingly be varied, subject to the condition that such compensation for escalation in prices and wages shall be available only for the work done during the stipulated period of the contract including the justified period extended under the provisions of clause 5 of the contract without any action under clause 2. However, for the work done during the justified period extended as above, the compensation as detailed below will be limited to prices/wages prevailing at the time of stipulated date of completion or as prevailing for the period under consideration, whichever is less. No such compensation shall be payable for a work for which the stipulated period of completion is equal to or less than the time as specified in Schedule F. Such compensation for escalation in the prices of materials and labour, when due, shall be worked out based on the following provisions:-

- (i) The base date for working out such escalation shall be the last stipulated date of receipt of tenders including extension, if any.
- (ii) The cost of work on which escalation will be payable shall be reckoned as below:
 - (a) Gross value of work done upto this quarter: (A)
 - (b) Gross Value of work done upto the last quarter: (B)
 - (c) Gross value of work done since previous quarter (A-B): (C)
 - (d) Full assessed value of Secured Advance (excluding materials covered under clause 10CA) fresh paid in this quarter: (D)
 - (e) Full assessed value of Secured Advance (excluding materials covered under clause 10CA) recovered in this quarter: (E)
 - (f) Full assessed value of Secured Advance for which escalation is payable in this quarter (D-E): (F)
 - (g) Advance payment made during this quarter: (G)
 - (h) Advance payment recovered during this quarter: (H)
 - (i) Advance payment for which escalation is payable in this quarter (G-H): (I)
 - (j) Extra Items/deviated quantities of items paid as per Clause 12 based on prevailing market rates during this quarter: (J)

$$\text{Then, } M = C + F + I - J$$

$$N = 0.85 M$$

- (k) Less cost of material supplied by the department as per Clause 10 and recovered during the quarter: (K)
- (l) Less cost of services rendered at fixed charges as per Clause 34 and recovered during the quarter (L)

Cost of work for which escalation is applicable: $W = M - (K + L)$

- (iii) Components of materials (except cement, reinforcement bars, structural steel or others materials covered under clause 10CA), labour, P.O.L., etc. shall be pre- determined for every work and incorporated in the conditions of contract attached to the tender papers included in Schedule 'F'. The decision of the Engineer-in- Charge in working out such percentage shall be binding on the contractors.
- (iv) The compensation for escalation for other materials (excluding cement, reinforcement bars, structural steel or others materials covered under clause 10CA) P.O.L. shall be worked as per the formula given below:-

Adjustment for civil component (except cement, reinforcement bars, structural steel or others materials covered under clause 10CA)/electrical component of construction

'Materials'

$$V_m = W \times \frac{X_m}{100} \times \frac{MI-MIO}{MIO}$$

VM = Variation in material cost i.e. increase or decrease in the amount in rupees to be paid or recovered.

W = Cost of work done worked out as indicated in sub-para (ii) of Clause 10CC.

XM = Component of 'materials' (except cement, reinforcement bars, structural steel or others materials covered under clause 10CA) expressed as per-cent of the total value of work.

MI = All India Wholesale Price Index for civil component/electrical component* of construction material as worked out on the basis of All India Wholesale Price Index for Individual commodities/Group Items for the period under consideration as published by Economic Advisor to Govt. Of India, Ministry of Industry & Commerce and applying weight ages to the Individual Commodities/Group Items. (In respect of the justifies period extended under the provisions of clause 5 of the contract without any action under clause 2, the index prevailing at the time of stipulated date of completion or the prevailing index of the period under consideration, whichever is less, shall be considered.)

MIO = All India Wholesale Price Index for civil component/electrical component* of construction material as worked out on the basis of all India Wholesale Price Index for Individual Commodities/group Items valid on the last stipulated date of receipt of tender including extension, if any, as published by the Economic Advisor to Govt. of India, Ministry of Industry & Commerce and applying weight ages to the Individual Commodities/Group Items.

*Note: relevant component only will be applicable.

(d) Adjustment for component of '**POL**'

$$V_F = W \times \frac{Z}{100} \times \frac{FI-FIO}{FIO}$$

VF= Variation in cost of Fuel, Oil & Lubricant i.e. increase or decrease in the amount in rupees to be paid or recovered.

W = Cost of work done worked out as indicated in sub-para (ii) of Clause 10CC.

Z = Component of Fuel, Oil & Lubricant expressed as per-cent of the total value of work.

FI = All India Wholesale Price Index for Fuel, Oil & Lubricant for the period under consideration as published by Economic Advisor to Govt. of India, Ministry of Industry & commerce, New Delhi. (In respect of the justified period extended under the provisions of clause 5 of the contract without any action under clause 2, the index prevailing at the time of stipulated date of completion or the prevailing index of the period under consideration, whichever is less, shall be considered.)

FIO = All India Wholesale Price Index for Fuel, Oil & Lubricant valid on the last stipulated date of receipt of tender including extension, if any.

(v) The following principles shall be followed while working out the indices mentioned in para (iv) above.

(a) The compensation for escalation shall be worked out at quarterly intervals and shall be with respect the cost of work done as per bills paid during the three calendar months of the said quarter. The first such payment shall be made at the end of three

months after the month (excluding) in which the tender was accepted and thereafter at three months interval. At the time of completion of the work, the last period for payment might become less than 3 months, depending on the actual date of completion.

- (b) The index (MI/FI etc.) relevant to any quarter/period for which such compensation is paid shall be the arithmetical average of the indices relevant to the three calendar months. If the period up to date of completion after the quarter covered by the last such instalment of payment, is less than three months, the index MI and FI shall be the average of the indices for the months falling within that period.
- (vi) The compensation for escalation for **labour** shall be worked out as per the formula given below:-

$$VL = W \times \frac{Y}{100} \times \frac{LI-LIO}{LIO}$$

VL = Variation in labour cost i.e. amount of increase or decrease in rupees to be paid or recovered.

W = Value of work done, worked out as indicated in sub-para (ii) above.

Y = Component of labour expressed as a percentage of the total value of the work.

LI = Minimum wage in rupees of an unskilled adult male mazdoor, fixed under any law, statutory rule or order as applicable on the last date of the quarter previous to the one under consideration. (In respect of the justified period extended under the provisions of clause 5 of the contract without any action under clause 2, the minimum wage prevailing on the last date of quarter previous to the quarter pertaining to stipulated date of completion or the minimum wage prevailing on the last date of the quarter previous to the one under consideration, whichever is less, shall be considered.)

Llo = Minimum daily wage in rupees of an unskilled adult male mazdoor, fixed under any law, statutory rule or order as on the last stipulated date of receipt of tender including extension, if any.

- (vii) The following principles will be followed while working out the compensation as per sub-Para (vi) above.
- (a) The minimum wage of an unskilled male mazdoor mentioned in sub-para (vi) above shall be the higher of the wage notified by Government of India, Ministry of Labour and that notified by the local administration both relevant to the place of work and the period of reckoning.
- (b) The escalation for labour also shall be paid at the same quarterly intervals when escalation due to increase in cost of materials and/or P.O.L. is paid under this clause. If such revision of minimum wages takes place during any such quarterly intervals, the escalation compensation shall be payable at revised rates only for work done in subsequent quarters;
- (c) Irrespective of variations in minimum wages of any category of labour, for the purpose of this clause, the variation in the rate for an unskilled adult male mazdoor alone shall form the basis for working out the escalation compensation payable on the labour component.
- (viii) In the event the price of materials and/or wages of labour required for execution of the work decrease/s, there shall be a downward adjustment of the cost of work so that such price of materials and/or wages of labour shall be deductible from the cost of work under this contract and in this regard the formula herein before stated under this Clause 10CC shall mutatis mutandis apply, provided that:

- (a) No such adjustment for the decrease in the price of materials and/or wages of labour aforementioned would be made in case of contracts in which the stipulated period of completion of the work is equal to or less than the time as specified in Schedule 'F'.
 - (b) The Engineer-in-Charge shall otherwise be entitled to lay down the procedure by which the provision of this sub-clause shall be implemented from time to time and the decision of the Engineer-in-Charge in this behalf shall be final and binding on the contractor.
- (ix) Provided always that :-
- (a) Where provisions of clause 10CC are applicable, provisions of Clause 10C will not be applicable but provisions of clause 10CA will be applicable.
 - (b) Where provisions of clause 10CC are not applicable, provisions of clause 10C and 10CA will become applicable.

CLAUSE 10 D Dismantled Material Govt. Properties

The Contractor shall treat all materials obtained during dismantling of a structure, excavation of the site for a work, etc. as Government's property and such materials shall be disposed off to the best advantage of Government according to the instructions in writing issued by the Engineer-in-Charge.

CLAUSE 11 Work to be Executed in Accordance with specifications, Drawings, Orders etc.

The Contractor shall execute the whole and every part of the work in the most substantial and workmanlike manner both as regards materials and otherwise in every respect in strict accordance with the specifications. The contractor shall also conform exactly, fully and faithfully to the design, drawings and instructions in writing in respect of the work signed by the Engineer-in-Charge and/or his authorized representative and the contractor shall be furnished free of charge one copy of the contract documents together with specifications, designs, drawings and instructions as are not included in the standard specifications of Central Public works Department specified in Schedule 'F' or in any Bureau of Indian Standard or any other, published standard or code or, Schedule of Rates or any other printed publication referred to elsewhere in the contract.

The contractor shall comply with the provisions of the contract and with the care and diligence execute and maintain the works and provide all labour and materials, tools and plants including for measurements and supervision of all works, structural plans and other things of temporary or permanent nature required for such execution and maintenance in so far as the necessity for providing these, is specified or is reasonably inferred from the contract. The Contractor shall take full responsibility for adequacy, suitability and safety of all the works and methods of construction.

CLAUSE 12 Deviations/Variations Extent and Pricing

The Engineer-in-Charge shall have power (i) to make alteration in, omissions from, additions to, or substitutions for the original specifications, drawings, designs and instructions that may appear to him to be necessary or advisable during the progress of the work, and (ii) to omit a part of the works in case of non-availability of a portion of the site or for any other reasons and the contractor shall be bound to carry out the works in accordance with any instructions given to him in writing signed by the Engineer-in-Charge and such alterations, omissions, additions or substitutions shall form part of the contract as if originally provided therein and any altered, additional or substituted work which the contractor may be directed to do in the manner specified above as part of the works, shall be carried out by the contractor on the same conditions in all respects including price on which he agreed to do the main work excepts as hereafter provided.

- 12.1 The time for completion of the works shall, in the event of any deviations resulting in additional cost over the tendered value sum being ordered be extended, if requested by the contractor, as follows:
- (i) In the proportion which the additional cost of the altered, additional or substituted work, bears to the original tendered value plus
 - (ii) 25% of the time calculated in (i) above or such further additional time as may be considered reasonable by the Engineer-in-Charge.

12.2 Deviation, Extra Items and Pricing

In the case of extra item (s) (items that are completely new, and are in addition to the items contained in the Contract), the contractor may within fifteen days of receipt of order or occurrence of the item(s) claim rates, supported by proper analysis, for the work and the Engineer-in-Charge shall within one month of the receipt of the claims supported by analysis, after giving consideration to the analysis of the rates submitted by the contractor, determine the rates on the basis of the market rates and the contractor shall be paid in accordance with the rates so determined.

In the case of substituted items (items that are taken up with partial substitution or in lieu of items of work in the contract), the rate for the agreement item (to be substituted) and substituted item shall also be determined in the manner as mentioned in the following para.

Deviation, Substituted Items, Pricing

- (a) If the market rate for the substituted item so determined is more than the market rate of the agreement item (to be substituted), the rate payable to the contractor for the substituted item shall be the rate for the agreement item (to be substituted) so increased to the extent of the difference between the market rates of substituted item and the agreement item (to be substituted).
- (b) If the market rate for the substituted item so determined is less than the market rate of the agreement item (to be substituted), the rate payable to the contractor for the substituted item shall be rate for the agreement item (to be substituted) so decreased to the extent of the difference between the market rate of substituted item and the agreement item (to be substituted)

Deviation, Deviated Quantities, Pricing

In the case of contract items, substituted items, contract cum substituted items, which exceed the limits laid down in schedule F, the contractor may within fifteen days of receipt of order or occurrence of the excess, claim revision of the rates, supported by the proper analysis for the work in excess of the above mentioned limits, provided that if the rates so claimed are in excess of the rates specified in the schedule of quantities, the Engineer –in –Charge shall within one month of receipt of the claim supported by the analysis, after giving consideration to the analysis of the rate submitted by the contractor, determine the rates on the basis of the market rates and the contractor shall be paid in accordance with the rates so determined.

- 12.3 The provisions of the preceding paragraph shall also apply to the decrease in the rates of items for the work in excess of the limits laid down in schedule F, and the Engineer–in–Charge shall after giving notice to the contractor within one month of occurrence of the excess and after taking in top consideration any reply received from him within fifteen days of the receipt of the notice, revise the rates of the work in question within one month of the expiry of the said period of fifteen days having regard to the market rates.
- 12.4 The contractor shall send to the Engineer – in – Charge once every three months, an up to date account giving complete details of all claims for additional payments to which the contractor may consider himself entitled and of all additional work ordered by the Engineer – in – Charge which he has executed during the preceding quarter failing which the contractor shall be deemed to have waived his right. However, the Engineer-in-charge may

authorize consideration of such claims on merits.

- 12.5** For the purpose of the operation of schedule F, the following work shall be treated as works relating to foundation:
- (i) For buildings: All works upto 1.2 metres above ground level or upto floor 1 level, whichever is lower.
 - (ii) For abutments, piers, and well steining: All works upto 1.2 m above bed level
 - (iii) For retaining walls, wing walls, compound walls, overhead reservoirs/tanks and other elevated structures: All works upto 1.2 metres above the ground level.
 - (iv) For reservoirs/tanks (other than overhead reservoirs/tanks): All works upto 1.2 metres above the ground level
 - (v) For basement : All works upto 1.2 m above ground level or upto floor 1 level, whichever is lower.
 - (vi) For Roads all items of excavation and filling including treatment of sub- base.
- 12.6** Any operation incidental to or necessarily has to be in contemplation of bidder while filling tender, or necessary to proper execution of the item included in the schedule of quantities or in the schedule of rates mentioned above, whether or not, specifically indicated in the description of the item and the relevant specifications, shall be deemed to be included in the rates quoted by the bidder or the rate given in the said schedule of rates, as the case may be. Nothing extra shall be admissible for such operations.

CLAUSE 13 Foreclosure of contract due to Abandonment or Reduction in scope of Work

If at any time after acceptance of the tender, the Engineer-in-charge shall decide to abandon or reduce the scope of works for any reason whatsoever and hence not require the whole or any part of the works to be carried out, the Engineer – in – Charge shall give notice in writing to that effect to the contractor and the contractor shall act accordingly in the matter. The contractor shall have no claim to any payment of compensation or otherwise whatsoever, on account of any profit or advantage which he might have derived from the execution of the works in full but which he did not derive in consequence of the foreclosure of the whole or part of the works.

The contractor shall be paid at contract rates, full amount for work executed at site and, in addition, a reasonable amount as certified by the Engineer – in – Charge for the items hereunder mentioned which could not be utilised on the work to the full extent in the view of foreclosure;

- (i) Any expenditure incurred on preliminary site work, e.g. temporary access roads, temporary labour huts, staff quarters and site office; storage accommodation and water storage tanks.
- (ii) Department/Government shall have the option to take over contractor's materials or any part of thereof either brought to site or of which the contractor is legally bound to accept delivery from suppliers (for incorporation in or incidental to the work) provided, however Department/ Government shall be bound take over the materials or such portions thereof as the contractor does not desire to retain. For materials taken over to be taken over by Department/ Government, cost of such materials as detailed by Engineer –in – Charge shall be paid. The cost shall, however, take in to account purchase price, cost of transportation and deterioration or damage which may have been caused to materials whilst in the custody of the contractor.
- (iii) If any materials supplied by the Department/Government are rendered surplus, the same except normal wastage shall be returned by the contractor to the Department/ Government at rates not exceeding those at which these were originally issued, less allowance for any deterioration or damage which may have been caused whilst the materials were in the custody of the contractor. In addition, cost of transporting such materials from site to Government stores, if so required by Department/Government, shall be paid.

- (iv) Reasonable compensation of transfer of T&P from site to contractor's permanent stores or to his other works, whichever is less. If T&P are not transported to either of the said places, no cost of transportation shall be payable.
- (v) Reasonable compensation for repatriation of contractor's site staff and imported labour to the extent necessary.

The contractor shall, if required by the Engineer – in – Charge, furnish to him, books of account, wage books, time sheet and other relevant documents and evidence as may be necessary to enable him to certify the reasonable amount payable under this condition.

The reasonable amount of items on (i), (iv) and (v) above shall not be in excess of 2% of the cost of the work remaining incomplete on the date of closure, i.e. total stipulated cost of the work as per accepted tender less the cost of work actually executed under the contract and less the cost of contractor's materials at site taken over by the Department/Government as per item (ii) above. Provided always that against any payments due to the contractor on this account or otherwise, the Engineer – in – Charge shall be entitled to recover or be credited with any outstanding balances due from the contractor for advance paid in respect of any tool, plants and materials and any other sums which at the date of termination were recoverable by the Government from the contractor under the terms of the contract

CLAUSE 14 – Carrying out part work at risk & cost of Contractor

If contractor:

- i) At any time makes default during currency of work or does not execute any part of the work with due diligence and continues to do so even after a notice in writing of 7 days in this respect from the Engineer-in-charge; or
- ii) Commits default in complying with any of the terms and conditions of the Contract and does not remedy it or takes effective steps to remedy it within 7 days even after a notice in writing is given in that behalf by the Engineer-in-Charge; or
- iii) Fails to complete the work(s) or items of work with individual dates of completion, on or before the date(s) so determined, and does not complete them within the period specified in the notice given in writing in that behalf by the Engineer-in-charge.

The Engineer-in-Charge without invoking action under clause 3 may, without prejudice to any other right or remedy against the contractor which have either accrued or accrue thereafter to Client, by a notice in writing to take the part work/part incomplete work of any item(s) out of his hands and shall have powers to:

- (a) Take possession of the site and any materials, constructional plant, implements, stores, etc., thereon; and/or
- (b) Carry out the part work/part incomplete work of any item(s) by any means at the risk and cost of the Contractor.

The Engineer-in-Charge shall determine the amount, if any, is recoverable from the Contractor for completion of the part work/part incomplete work of any item(s) taken out of his hands and execute at the risk and cost of the Contractor, the liability of contractor on account of loss or damage suffered by the Client because of action under this clause shall not exceed 10% of the tendered value of the work.

In determining the amount, credit shall be given to the contractor with the value of work done in all respect in the same manner and at the same rate as if it had been carried out by the original contractor under the terms of his contract, the value of Contractor's materials taken over and incorporated in the work and use of plant and machinery belonging to the contractor. The certificate of the Engineer-in-Charge as to the value of work done shall be final and conclusive against the contractor provided always that action under this clause shall only be taken after giving notice in writing to the contractor. Provided also that if the expenses incurred by the department are less

than the amount payable to the contractor at his agreement rates, the difference shall not be payable to the contractor.

Any excess expenditure incurred or to be incurred by the Client in completing the part work/part incomplete work of any item(s) or the excess loss of damages suffered or may be suffered by Government as aforesaid after allowing such credit shall without prejudice to any other right or remedy available to the Client in law or per as agreement be recovered from any money due to the contractor or any account, and if such money is insufficient, the contractor shall be called upon in writing and shall be liable to pay the same within 30 days.

If the contractor fails to pay the required sum within the aforesaid period of 30 days, the Engineer-in-Charge shall have the right to sell any or all of the contractor's unused materials, constructional plant, implements, temporary building at site etc. and adjust the proceed of sale thereof towards the dues recoverable from the contractor under the contract and if thereafter there remains any balance outstanding, it shall be recovered in accordance with the provisions of the contract.

In the event of above course being adopted by the Engineer-in-Charge, the contractor shall have no claim to compensation for any loss sustained by him by reason of his having purchased or procured any materials or entered into any engagements or made any advance on any account or with a view to the execution of the work or the performance of the contract.

CLAUSE 15 **Suspension of Work**

- (i) The contractor shall, on receipt of the order in writing of the Engineer – in – Charge, (whose decision shall be final and binding on the contractor) suspend the progress of the works or any part thereof for such time and in such manner as the Engineer – in – Charge may consider necessary so as not to cause any damage or injury to the work already done or endanger the safety thereof for any of the following reasons:
- (a) On account of any default on the part of the contractor or;
 - (b) For proper execution of the works or part thereof for reasons other than the default of the contractor; or
 - (c) For safety of the works or part thereof.

The contractor shall, during such suspension, properly protect and secure the works to the extent necessary and carry out the instructions given in that behalf by the Engineer – in – Charge.

- (ii) If the suspension is ordered for reasons (b) and (c) in sub-para (i) above:
- (a) The contractor shall be entitled to an extension of time equal to the period of every such suspension PLUS 25%, for completion of the item or group of items of work for which a separate period of completion is specified in the contract and of which the suspended work forms a part, and;
 - (b) If the total period of all such suspension in respect of an item or group of items or work for which a separate period of completion is specified in the contract exceeds thirty days, the contractor shall, in addition, be entitled to such compensation as the Engineer – in – Charge may consider reasonable in respect of salaries and /or wages paid by the contractor to his employees and labour at site, remaining idle during the period of suspension, adding thereto 2% to cover indirect expenses of the contractor provided the contractor submit the claim supported by details to the Engineer – in – Charge within fifteen days of the expiry of the period of 30 days.
- (iii) If the works or part thereof is suspended on the orders of the Engineer – in – Charge for more than three months at a time, except when suspension is ordered for reason (a) in sub-para (i) above, the contractor may after receipt of such order serve a written notice on the Engineer – in – Charge requiring permission within fifteen days from receipt by the Engineer – in – Charge of the said notice, to proceed with the work or part thereof in regard to which progress has been suspended and if such permission is not granted within that time, the

contractor, if he intends to treat the suspension, where it affects only a part of the works as an omission of such part by Government or where it affects whole of the works as an abandonment of the works by Government, shall within ten days of expiry of such period of 15 days give notice in writing of his intention to the Engineer –in – Charge. In the event of the contractor treating the suspension as an abandonment of the contract by the Government, he shall have no claim to payment of any compensation on account of any profit or advantage which he might have derived from the execution of the work in full but which he could not derive in consequence of the abandonment. He shall, however, be entitled to such compensation, as the Engineer – in – Charge may consider reasonable, in respect of salaries and /or wages paid by him to his employees and labour at site, remaining idle in consequence adding to the total thereof 2% to cover indirect expenses of the contractor provided the contractor submits his claim supported by details to the Engineer – in – Charge within 30 days of the expiry of the period of 3 months.

Provided, further that the contractor shall not be entitled to claim any compensation from Government for the loss suffered by him on account of delay by Government in the supply of materials in schedule 'B' where such delay is covered by difficulties relating to the supply of wagons, force majeure including non- allotment of such materials by controlling authorities, acts of God, acts of enemies of the state/country or any reasonable cause beyond the control of the Government.

CLAUSE 16 Action in case Work not done as per Specifications

All works under or in course of execution or executed in pursuance of the contract, shall at all times be open and accessible to the inspection and supervision of the Engineer – in – Charge, his authorized subordinates in charge of the work and all the superior officers, officer of the Quality Assurance Unit of the Department or any organization engaged by the Department for Quality Assurance and of the Chief Technical Examiner's Office, and the contractor shall, at all times, during the usual working hours and at all other times at which reasonable notice of the visit of such officers has been given to the contractor, either himself be present to receive orders and instructions or have a responsible agent duly accredited in writing, present for that purpose. Orders given to the Contractor's agent shall be considered to have the same force as if they had been given to the contractor himself.

If it shall appear to the Engineer – in – Charge or his authorized subordinates in charge of the work or to the Officer in charge of Quality Assurance or his subordinate officers or the officers of the organization engaged by the Department for Quality Assurance or to the Chief Technical Examiner or his subordinate officers, that any work has been executed with unsound, imperfect, or unskilful workmanship, or with materials or articles provided by him for the execution of the work which are unsound or of a quality inferior to that contracted or otherwise not in accordance with the contract, the contractor shall, on demand in writing which shall be made within twelve months (six months in the case of work costing Rs.10 Lac and below except road work) of the completion of the work from the Engineer –in – Charge specifying the work, materials or articles complained of notwithstanding that the same may have been passed, certified and paid for forthwith rectify, or remove and reconstruct the work so specified in whole or in part, as the case may require or as the case may be, remove the materials or articles so specified and provide other proper and suitable materials or articles at his own charge and cost. In the event of the failing to do so within a period specified by the Engineer – in – Charge in his demand aforesaid, then the contractor shall be liable to pay compensation at the same rate as under clause 2 of the contract (for non- completion of the work in time) for this default.

In such case the Engineer – in – Charge may not accept the item of work at the rates applicable under the contract but may accept such items at reduced rates as the authority specified in schedule 'F' may consider reasonable during the preparation of on account bills or final bill if the item is so acceptable without detriment to the safety and utility of the item and the structure or he may reject the work outright without any payment and /or get it and other connected and incidental items rectified, or removed and re – executed at the risk and the cost of the contractor. Decision of the Engineer – in – Charge to be conveyed in writing in respect of the same will be final and binding

on the contractor.

CLAUSE 17 **Contractor Liable for Damages, defects during maintenance period**

If the contractor or his working people or servants shall break, deface, injure or destroy any part of building in which they may be working, or any building, road, road kerb, fence, enclosure, water pipe, cables, drains, electric or telephone post or wires, trees, grass or grassland, or cultivated ground contiguous to the premises on which the work or any part is being executed, or if any damage shall happen to the work while in progress, from any cause whatever or if any defect, shrinkage or other faults appear in the work within twelve months (six months in the case of work costing Rs. Ten lacs and below except road work) after a certificate final or otherwise of its completion shall have been given by the Engineer – in – Charge as aforesaid arising out of defect or improper materials or workmanship the contractor shall upon receipt of a notice in writing on that behalf make the same good at his own expense or in default the Engineer – in – Charge cause the same to be made good by other workmen and deduct the expense from any sums that may be due or at any time thereafter may become due to the contractor, or from his security deposit or the proceeds of sale thereof or of a sufficient portion thereof. The security deposit of the contractor shall not be refunded before the expiry of twelve months (six months in the case of work costing Rs. Ten lacs and below except road work) after the issue of the certificate final or otherwise, of completion of work, or till the final bill has been prepared and passed whichever is later. Provided that in the case of road work, if the opinion of the Engineer – in – Charge, half of the security deposit is sufficient, to meet all liabilities of the contractor under this contract, half of the security deposit will be refundable after six months and the remaining half after twelve month of the issue of the said certificate of completion or till the final bill has been prepared and passed whichever is later.

In case of Operation & Maintenance works, the security deposit deducted from contractors shall be refunded within one month from the date of final payment or within one month from the date of completion of the maintenance contract whichever is earlier.

CLAUSE 18 **Contractors to Supply Tools & Plants etc.**

The contractor shall provide at his own cost all materials (except such special materials, if any, as may in accordance with the contract be supplied from the Engineer – in – Charge's stores), machinery, tools & plants as specified in schedule "F". In addition to this, appliances, implements, other plants, ladders, cordage, tackle, scaffolding and temporary works required for the proper execution of the work, whether original, altered or substituted and whether included in the specifications or other documents forming part of the contract or referred to in these conditions or not, or which may be necessary for the purpose of satisfying or complying with the requirements of the Engineer – in – Charge as to any matter as to which under these conditions he is entitled to be satisfied, or which he is entitled to require together with carriage therefore to and from the work. The contractor shall also supply without charge the requisite number of persons with the means and materials, necessary for the purpose of setting out works, and counting, weighing and assisting the measurement for examination at any time and from time to time of the work or materials. Failing his so doing, the same may be provided by the Engineer-in-Charge at the expense of the contractor and the expenses may be deducted, from any money due to the contractor under this contract or otherwise and /or from his security deposit or the proceeds of sale thereof, or a sufficient portions thereof.

CLAUSE 18A **Recovery of Compensation paid to workmen**

In every case in which by virtue of the provision sub-section (1) of Section 12, of the Workmen's Compensation Act.1923, Government is obliged to pay compensation to a workman employed by the contractor, in execution of the works, Government will recover from the contractor, the amount of the compensation so paid; and, without prejudice to the rights of the Government under

sub-section (2) of Section 12, of the said Act, Government shall be at liberty to recover such amount or any part thereof by deducting it from the security deposit or from any sum due by Government to the contractor whether under this contract or otherwise. Government shall not be bound to contest any claim made against it under sub-section (1) of Section 12, of the said Act, except on the written request of the contractor and upon his giving to Government full security for all costs for which Government might become liable in consequence of contesting such claim.

CLAUSE 18B **Ensuring Payment and Amenities to Workers if Contractor fails**

In every case in which by virtue of the provisions of the Contract Labour (Regulation and Abolition) Act, 1970, and of the Contract Labour (Regulation and Abolition) Central Rules, 1971, Government is obliged to pay any amounts of wages to a workman employed by the contractor in execution of the work, or to incur any expenditure in providing welfare and health amenities required to be provided under the above said Act or under the Rules framed by Government from time to time for the protection of the health and sanitary arrangements for workers employed by Contractors to be followed by the Contractor for this Project, Department/Government will recover from the contractor, the amount of wages so paid or the amount of expenditure so incurred; and without prejudice to the rights of the Government under sub-section (2) of Section 20, and sub-section (4) of Section 21, of the Contract Labour (Regulation and Abolition) Act, 1970, Government shall be at liberty to recover such amount or any part thereof by deducting it from the security deposit or from any sum due by Department/Government to the contractor whether under this contract or otherwise. Department/Government shall not be bound to contest any claim made against it under sub-section (1) of Section 20, sub-section (4) of Section 21, of the said Act, except on the written request of the contractor and upon his giving to the Department/Government full security for all costs for which the Department /Government might become liable in contesting such claim.

CLAUSE 19 **Labour Laws to be complied by the Contractor**

The contractor shall obtain a valid license under the Contract Labour (R & A) Act, 1970, and the Contract Labour (Regulation & Abolition) Central Rules, 1971, before the commencement of the work, and continue to have a valid license until the completion of the work. The contractor shall also abide by the provisions of the Child Labour (Prohibition and Regulation) Act, 1986.

The contractor shall also comply with the provisions of the Building and Other Construction Workers (Regulation of Employment & Condition of Service) Act, 1996 and the Building and Other Construction Workers Welfare Cess Act, 1996.

Any failure to fulfil these requirements shall attract the penal provisions of this contract arising out of the resultant non-execution of the work.

CLAUSE 19A

No labour below the age of fourteen years shall be employed on the work.

CLAUSE 19B **Payment of wages:**

Payment of wages:

- (i) The Contractor shall pay to labour employed by him either directly or through sub-contractors, wages not less than fair wages as per the provisions of the Contract Labour (Regulation and Abolition) Act, 1970 and the contract Labour (Regulation and Abolition) Central Rules, 1971, wherever applicable.
- (ii) The contractor shall, notwithstanding the provisions of any contract to the contrary, cause to be paid fair wage to labour indirectly engaged on the work, including any labour engaged by his sub-contractors in connection with the said work, as if the labour had been immediately employed by him.

- (iii) In respect of labour directly or indirectly employed in the works for performance of the contractor's part of this contract, the contractor shall comply with or cause to be complied with the Central Public Works Department contractor's Labour Regulations made by Government from time to time in regard to payment of wages, wage period, deduction from wages recovery of wages not paid and deductions unauthorisedly made, maintenance of wage books or wage slips, publication of scale of wages and other terms of employment, inspection and submission of periodical returns and all other matters of the like nature or as per the provisions of the Contract Labour (Regulation and Abolition) Act, 1970, and the Contract Labour (Regulation and Abolition) Central Rules, 1971, wherever applicable.
- (iv) (a) The Engineer-in-Charge concerned shall have the right to deduct from the moneys due to the contractor any sum required or estimated to be required for making good the loss suffered by a worker or workers by reason of non-fulfilment of the conditions of the contract for the benefit of the workers, non-payment of wages or of deductions made from his or their wages which are not justified by their terms of the contract or non-observance of the Regulations.
- (b) Under the provision of Minimum Wages (Central) Rules, 1950, the contractor is bound to allow to the labours directly or indirectly employed in the works one day rest for 6 days continuous work and pay wages at the same rate as for duty. In the event of default, the Engineer-in-Charge shall have the right to deduct the sum or sums not paid on account of wages for weekly holidays to any labours and pay the same to the persons entitled thereto from any money due to the contractor by the Engineer-in-Charge Concerned.
- In the case of Union Territory of Delhi, however, as the all-inclusive minimum daily wages fixed under Notification of the Delhi Administration No. F. 12 (162) MWO/DAB/43884-91, dated 31.12.1979 as amended from time to time are inclusive of wages for the weekly day of rest, the question of extra payment for weekly holiday would not arise.
- (v) The contractor shall comply with the provisions of the Payment of Wages Act, 1936, Minimum Wages Act, 1948, Employees Liability Act, 1938, Workmen's Compensation Act, 1923, Industrial Disputes Act, 1947, maternity Benefits Act, 1961, and the Contractors Labour (Regulation and Abolition) Act 1970, or the modifications thereof or any other laws relating thereto and the rules made there under from time to time.
- (vi) The contractor shall indemnify and keep indemnified Government against payments to be made under and for the observance of the laws aforesaid and the C.P.W.D Contractor's Labour Regulations without prejudice to his right to claim indemnity from his sub-contractors.
- (vii) The laws aforesaid shall be deemed to be a part of this contract and any breach thereof shall be deemed to be a breach of this contract.
- (viii) Whatever is the minimum wage for the time being, or if the wage payable is higher than such wage, such wage shall be paid by the contractor to the workman directly without the intervention of Jamadar and that Jamadar shall not be entitled to be deduct or recover any amount from the minimum wage payable to the workmen as and by way of commission or otherwise.
- (ix) The contractor shall ensure that no amount by way of commission or otherwise is deducted or recovered by the Jamadar from the wage of workmen

CLAUSE 19C

In respect of all labour directly or indirectly employed in the work for the performance of the contractors part of this contract, the contractor shall at his own expense arrange for the safety provisions as per Safety Code framed from time to time and shall at his own expense provide for all facilities in connection therewith. In case the contractor fails to make arrangement and provide necessary facilities as aforesaid, he shall be liable to pay a penalty of Rs. 200/- for each default and in

addition, the Engineer-in- Charge shall be at liberty to make arrangement and provide facilities as aforesaid and recover the costs incurred in that behalf from the contractor.

CLAUSE 19D

The contractor shall submit by the 4th and 19th of every month, to the Engineer-in- Charge, a true statement showing in respect of the second half of the preceding month and the first half of the current month respectively:-

- (1) The number of labours employed by him on the work,
- (2) Their working hours,
- (3) The wages paid to them,
- (4) The accidents that occurred during the said fortnight showing the circumstances under which they happened and the extent of damage and injury caused by them, and
- (5) The number of female workers who have been allowed maternity benefit according to Clause 19F and amount paid to them.

Failing which the contractor shall liable to pay Government, a sum not exceeding Rs.200/- for each default or materially incorrect statement. The decision of the Departmental Officer(EIC) shall be final in deducting from any bill due to the contractor, the amount levied as fine and be binding on the contractor.

CLAUSE 19E

In respect of all labour directly or indirectly employed in the works for the performance of the contractor part of this contract, the contractor shall comply with or cause to be complied with all the rules framed by Government from time to time for the protection of the health and sanitary arrangements for workers employed by the HLL/ Client and its contractors.

CLAUSE 19F

Leave and pay during leave shall be regulated as follows:-

1. Leave
 - (i) In the case of delivery – maternity leave not exceeding 8 weeks, 4 weeks up to and including the day of delivery and 4 weeks following that day,
 - (ii) In the case of miscarriage – up to 3 weeks from the date of miscarriage.
2. Pay:
 - (i) In the case of delivery – leave pay during maternity leave will be at the rate of the women's average daily earnings, calculated on total wages earned on the days when fulltime work was done during a period of three months immediately preceding the date on which she gives notice that she expects to be confined or at the rate of Rupee one only a day whichever is greater.
 - (ii) In the case of miscarriage – leave pay at the rate of average daily earning calculated on the total wages earned on the day when full time work was done during a period of three months immediately preceding the date of such miscarriage.
3. Conditions for grant of Maternity Leave:

No maternity leave benefit shall be admissible to a woman unless she has been employed for a total period of not less than six months immediately preceding the date on which she proceeds on leave.
4. The contractor shall maintain a register of Maternity (Benefit) in the Prescribed form as shown in appendix –I and II, and the same shall be kept at the place of work.

CLAUSE 19G

In the event of the contractor(s) committing a default or breach of any of the provisions of the CPWD Contractor's Labour Regulations and Model Rules for the protection of health and sanitary arrangements for the workers as amended from time to time or furnishing any information or submitting or filling any statement under the provisions of the above Regulations and Rules which is materially incorrect, he/they shall without prejudice to any other liability, pay to the Government a sum not exceeding Rs.5000/- for every default breach or furnishing, making, submitting filling such materially incorrect statements and in the event of the contractor(s) defaulting continuously in this respect, the penalty may be enhanced to Rs.5000/-per day for each day of default subject to a maximum of 5 per cent of the estimated cost of the work put to tender. The decision of the Engineer-in-Charge shall be final and binding on the parties.

Should it appear to the Engineer-in-Charge that the contractor(s) is/are not properly observing and complying with the provisions of the C.P.W.D Contractor's Labour Regulations and Model Rules and the provisions of the Contract Labour (Regulation and Abolition) Act 1970, and the Contract Labour (R&A)Central Rules 1971, for the protection of health and sanitary arrangements for work people employed by the contractor(s) (hereinafter referred as "the said Rules") the Engineer-in-Charge shall have power to give notice in writing to the contractor(s) requiring that the said Rules be complied with and the amenities prescribed therein be provided to the work-people within a reasonable time to be specified in the notice. If the contractor(s) shall fail within the period specified in the notice to comply with and/ observe the said Rules and to provide the amenities to the work-people as aforesaid, the Engineer-in-Charge shall have the power to provide the amenities hereinbefore mentioned at the cost of the contractor(s). The contractor(s) shall erect, make and maintain at his/their own expense and to approved standards all necessary huts and sanitary arrangements required for his/their work people on the site in connection with the execution of the works, and if the same shall not have been erected or constructed, according to approved standards, the Engineer-in-Charge shall have power to give notice in writing to the contractor(s) requiring that the said huts and sanitary arrangements be remodelled and/or reconstructed according to approved standards, and if the contractor(s) shall fail to remodel or reconstruct such huts and sanitary arrangements according to approved standards within the period specified in the notice, the Engineer-in-Charge shall have the power to remodel or reconstruct such huts and sanitary arrangements according to approved standards at the cost of the contractor(s).

CLAUSE 19H

The contractor(s) shall at his/their own cost provide his/their labour with a sufficient number of huts (hereinafter referred to as the camp) of the following specifications on a suitable plot of land to be approved by the Engineer-in-Charge.

- (i)
 - (a) The minimum height of each hut at the eaves level shall be 2.1m (7ft.)and the floor area to be provided will be at the rate of 2.7 sqm (30 sqft) for each member of the worker's family staying with the labourer.
 - (b) The Contractor(s) shall in addition construct suitable cooking places having a minimum area of 1.80m x 1.50m (6'x5') adjacent to the hut for each family.
 - (c) The contractor(s) shall also construct temporary latrines and urinals for the use of the labourers each on the scale of not less than four per each one hundred of the total strength, separate latrines and urinals being provided for women.
 - (d) The contractor(s) shall construct sufficient number of bathing and washing places, one unit for every 25 persons residing in the camp. These bathing and washing places shall be suitably screened.
- (ii)
 - (a) All the huts shall have walls of sun-dried or burnt- bricks laid in mud mortar or other suitable local materials as may be approved by the Engineer- in-Charge. In case of sun-

dried bricks, the walls should be plastered with mud gobi on both sides. The floor may be kutchra but plastered with mud gobi and shall be at least 15 cm (6") above the surrounding ground. The roofs shall be laid with thatch or any other materials as may be approved by the Engineer-in-Charge and the contractor shall ensure that throughout the period of their occupation, the roofs remain water-tight.

- (b) The contractor(s) shall provide each hut with proper ventilation.
- (c) All doors, windows and ventilators shall be provided with suitable leaves for security purposes.
- (d) There shall be kept an open space of at least 7.2m (8 yards) between the rows of hut which may be reduced to 6m (20 ft.) according to the availability of site with the approval of the Engineer-in-Charge. Back to back construction will be allowed.
- (iii) **Water Supply** – The contractor(s) shall provide adequate supply of water for the use of labourers. The provision shall not be less than two gallons of pure and wholesome water per head per day for drinking purposes and three gallons of clean water per head per day for bathing and washing purposes. Where piped water supply is available, supply shall be at stand posts and where the supply is from wells or river, tanks which may be of metal or masonry, shall be provided. The contractor(s) shall also at his/their own cost make arrangements for laying pipelines for water supply to his/ their labour camp from the existing mains wherever available, and shall pay all fees and charges therefore.
- (iv) The site selected for the camp shall be high ground, removed from jungle.
- (v) **Disposal of Excreta** – The contractor(s) shall make necessary arrangements for the disposal of excreta from the latrines by trenching or incineration which shall be according to the requirements laid down by the Local Health Authorities. If trenching or incineration is not allowed, the contractor(s) shall make arrangements for the removal of the excreta through the Municipal Committee/authority and inform it about the number of labourers employed so that arrangements may be made by such Committee /authority for the removal of the excreta. All charges on this account shall be borne by the contractor and paid direct by him to the Municipality/authority. The contractor shall provide one sweeper for every eight seats in case of dry system.
- (vi) **Drainage** – The contractor(s) shall provide efficient arrangements for draining away sullage water so as to keep the camp neat and tidy.
- (vii) The contractor(s) shall make necessary arrangements for keeping the camp area sufficiently lighted to avoid accidents to the workers.
- (viii) **Sanitation** – The contractor(s) shall make arrangements for conservancy and sanitation in the labour camps according to the rules of the Local Public Health and Medical Authorities.

CLAUSE 19I

The Engineer-in-Charge may require the contractor to dismiss or remove from the site of the work any person or persons in the contractor(s) employ upon the work who may be incompetent or misconduct himself and the contractor shall forthwith comply with such requirements.

CLAUSE 19J

It shall be the responsibility of the contractor to see that the building under construction is not occupied by anybody unauthorisedly during construction, and is handed over to the Engineer-in-Charge with vacant possession of complete building. If such building though completed is occupied illegally, then the Engineer-in-Charge shall have the option to refuse to accept the said building / buildings in that position. Any delay in acceptance on this account will be treated as the delay in

completion and for such delay, a levy upto 5% of tendered value of work may be imposed by the Superintending Engineer whose decision shall be final both with regard to the justification and quantum and be binding on the contractor.

However, EIC, through a notice, may require the contractor to remove the illegal occupation any time on or before construction and delivery.

CLAUSE 19K Employment of skilled /semi skilled workers

The contractor shall, at all stages of work, deploy skilled/semi-skilled tradesmen who are qualified and possess certificate in particular trade from CPWD Training Institute/ Industrial Training Institute /National institute of Construction Management and Research (NICMAR) /National Academy of Construction, CIDC or any similar reputed and recognized Institute managed /certified by State /Central Government. The number of such qualified tradesmen shall not be less than 20% of total skilled /semi-skilled workers required in each trade at any stage of work. The contractor shall submit number of man days required in respect of each trade, its scheduling and the list of qualified tradesman along with requisite certificate from recognized Institute to Engineer in charge for approval. Notwithstanding such approval if the tradesmen are found to have inadequate skill to execute the work of respective trade, the contractor shall substitute such tradesmen within two days of written notice from Engineer-in-Charge. Failure on the part of contractor to obtain approval of Engineer-in-Charge or failure to deploy qualified tradesmen will attract a compensation to be paid by contractor at the rate of Rs.100 per such tradesmen per day. Decision of Engineer in Charge as to whether particular tradesmen possess (es) requisite skill and amount of compensation in case of default shall be final and binding.

Provided always, that the provisions of this clause shall not be applicable for works with estimated cost put to tender being less than Rs.5 crores.

CLAUSE 20 Minimum Wages Act to be complied with

The contractor shall comply with all the provisions of the Minimum Wages Act, 1948, and Contract Labour (Regulation and Abolition) Act, 1970, amended from time to time and rules framed there under and other labour laws affecting contract labour that may be brought into force from time to time.

CLAUSE 21 Work not to be sublet. Action in case of insolvency

The contract shall not be assigned or sublet without the written approval of the Engineer-in-Charge. And if the contractor shall assign or sublet his contract, or attempt to do so, or become insolvent or commence any insolvency proceedings or make any composition with his creditors or attempt to do so, or if any bribe, gratuity, gift, loan, perquisite, reward or advantage pecuniary or otherwise, shall either directly or indirectly, be given promised or offered by the contractor, or any of his servants or agent to any public officer or person in the employ of Government in any way relating to his office or employment, or if any such officer or person shall become in any way directly or indirectly interested in the contract, the Engineer-in-Charge on behalf of the President of India shall have power to adopt the course specified in Clause 3 hereof in the interest of Government and in the event of such course being adopted, the consequences specified in the said Clause 3 shall ensue.

CLAUSE 22

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

CLAUSE 23 Changes in firm's Constitution to be intimated

Where the contractor is a partnership firm, the previous approval in writing of the Engineer-in-Charge shall be obtained before any change is made in the constitution of the firm. Where the contractor is an individual or a Hindu undivided family business concern, such approval as aforesaid shall likewise be obtained before the contractor enters into any partnership agreement whereunder the partnership firm would have the right to carry out the works hereby undertaken by the contractor. If previous approval as aforesaid is not obtained, the contract shall be deemed to have been assigned in contravention of Clause 21 hereof and the same action may be taken, and the same consequences shall ensue as provided in the said Clause 21.

CLAUSE 24

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

CLAUSE 25 Settlement of Disputes & Arbitration

Except where otherwise provided in the contract, all questions and disputes relating to the meaning of the specifications, design, drawings and instructions here-in before mentioned and as to the quality of workmanship or materials used on the work or as to any other question, claim, right, matter or thing whatsoever in any way arising out of or relating to the contract, designs, drawings, specifications, estimates, instructions, orders or these conditions or otherwise concerning the works or the execution or failure to execute the same whether arising during the progress of the work or after the cancellation, termination, completion, or abandonment thereof shall be dealt with as mentioned hereinafter:

- (i) If the contractor considers any work demanded of him to be outside the requirements of the contract, or disputes any drawings, record or decision given in writing by the Engineer-in-Charge on any matter in connection with or arising out of the contract or carrying out of the work, to be unacceptable, he shall promptly within 15 days request the authority as indicated in Schedule 'F' (Reviewing Authority) in writing for written instruction or decision. Thereupon, the Reviewing Authority shall give his written instructions or decision within a period of one month from the receipt of the contractor's letter.

If the Reviewing Authority fails to give his instructions or decision in writing within the aforesaid period or if the contractor is dissatisfied with the instructions or decision of the Reviewing Authority, the contractor may, within 15 days of the receipt of Reviewing Authorities' decision, appeal to the authority as indicated in Schedule 'F' (Appealing Authority) who shall afford an opportunity to the contractor to be heard, if the latter so desires, and to offer evidence in support of his appeal. The Appealing Authority shall give his decision within 30 days of receipt of contractor's appeal. If the contractor is dissatisfied with this decision, the contractor shall within a period of 30 days from receipt of the decision, give notice to the Client for appointment of arbitrator failing which the said decision shall be final binding and conclusive and not referable to adjudication by the arbitrator.

- (ii) Except where the decision has become final, binding and conclusive in terms of sub-para (i) above, disputes or difference shall be referred for adjudication through arbitration by a sole arbitrator appointed by the Client. If the arbitrator so appointed is unable or unwilling to act or resigns his appointment or vacates his office due to any reason whatsoever, another sole arbitrator shall be appointed in the manner aforesaid. Such person shall be entitled to proceed with the reference from the stage at which it was left by his predecessor.

It is a term of this contract that the party invoking arbitration shall give a list of disputes with amounts claimed in respect of each such dispute along with the notice for appointment of arbitrator and giving reference to the rejection by the Appealing Authority of the appeal.

It is also a term of this contract that no person, other than a person appointed by MoHFW or the Client, as aforesaid, should act as arbitrator.

It is also a term of this contract that if the contractor does not make any demand for appointment of arbitrator in respect of any claims in writing as aforesaid within 120 days of receiving the intimation from the Engineer-in-Charge that the final bill is ready for payment, the claim of the contractor shall be deemed to have been waived and absolutely barred and the Department/Government shall be discharged and released of all liabilities under the contract in respect of these claims.

The arbitration shall be conducted in accordance with the provisions of the Arbitration and Conciliation Act, 1996 (26 of 1996) or any statutory modifications or re-enactment thereof and the rules made thereunder and for the time being in force shall apply to the arbitration proceeding under this clause.

It is also a term of this contract that the arbitrator shall adjudicate on only such disputes as are referred to him by the appointing authority and give separate award against each dispute and claim referred to him and in all cases the arbitrator shall give reasons for the award. However the Arbitrator shall also have the power to make Interim Award.

It is also a term of the contract that if any fees are payable to the arbitrator, these shall be paid equally by both the parties.

It is also a term of the contract that the arbitrator shall be deemed to have entered on the reference on the date he issues notice to both the parties calling them to submit their statement of claims and counter statement of claims. The venue of the arbitration shall be such place as may be fixed by the arbitrator in his sole discretion. The fees, if any, of the arbitrator shall, if required to be paid before the award is made and published, be paid half and half by each of the parties. The cost of the reference and of the award (including the fees, if any, of the arbitrator) shall be in the discretion of the arbitrator who may direct to any by whom and in what manner, such costs or any part thereof shall be paid and fix or settle the amount of costs to be so paid.

CLAUSE 26 Contractor to indemnify Govt. against Patent Rights

The contractor shall fully indemnify and keep indemnified the President of India against any action, claim or proceeding relating to infringement or use of any patent or design or any alleged patent or design rights and shall pay any royalties which may be payable in respect of any article or part thereof included in the contract. In the event of any claims made under or action brought against Department/Government in respect of any such matters as aforesaid, the contractor shall be immediately notified thereof and the contractor shall be at liberty, at his own expense, to settle any dispute or to conduct any litigation that may arise there from, provided that the contractor shall not be liable to indemnify the President of India if the infringement of the patent or design or any alleged patent or design right is the direct result of an order passed by the Engineer-in-Charge in this behalf.

CLAUSE 27 Lump sum Provisions in Tender

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

CLAUSE 28 Action where no specifications are specified

In the case of any class of work for which there is no such specifications as referred to in Clause 11, such work shall be carried out in accordance with the Bureau of Indian Standards Specifications. In case there are no such specifications in bureau of Indian Standards, the work shall be carried out as per manufacturers' specifications, if not available then as per District Specifications. In case there are no such specifications as required above, the work shall be carried out in all respects in accordance with the instructions and requirements of the Engineer-in-Charge.

CLAUSE 29**With-holding and lien in respect of sums due from contractor**

- (i) Whenever any claim or claims for payment of a sum of money arises out of or under the contract or against the contractor, the Engineer-in-Charge or the Government shall be entitled to withhold and also have a lien to retain such sum or sums in whole or in part from the security, if any deposited by the contractor and for the purpose aforesaid, the Engineer-in-Charge or the Government shall be entitled to withhold the security deposit, if any, furnished as the case may be and also have a lien over the same pending finalization or adjudication of any such claim. In the event of the security being insufficient to cover the claimed amount or amounts or if no security has been taken from the contractor, the Engineer-in-Charge or the Government shall be entitled to withhold and have a lien to retain to the extent of such claimed amount or amounts referred to above, from any sum or sums found payable or which may at any time thereafter become payable to the contractor under the same contract or any other contract with the Engineer-in-Charge of the Government or any contracting person through the Engineer-in-Charge pending finalization of adjudication of any such claim.

It is an agreed term of the contract that the sum of money or moneys so withheld or retained under the lien referred to above by the Engineer-in-Charge or Government will be kept withheld or retained as such by the Engineer-in-Charge or Government till the claim arising out of or under the contract is determined by the arbitrator (if the contract is governed by the arbitration clause) by the competent court, as the case may be and that the contractor will have no claim for interest or damages whatsoever on any account in respect of such withholding or retention under the lien referred to above and duly notified as such to the contractor. For the purpose of this clause, where the contractor is a partnership firm or a limited company, the Engineer-in-Charge or the Government shall be entitled to withhold and also have a lien to retain towards such claimed amount or amounts in whole or in part from any sum found payable to any partner/limited company as the case may be, whether in his individual capacity or otherwise.

- (ii) Government shall have the right to cause an audit and technical examination of the works and the final bills of the contractor including all supporting vouchers, abstract, etc., to be made after payment of the final bill and if as a result of such audit and technical examination any sum is found to have been overpaid in respect of any work done by the contractor under the contract or any work claimed to have been done by him under the contract and found not to have been executed, the contractor shall be liable to refund the amount of overpayment and it shall be lawful for Government to recover the same from him in the manner prescribed in sub-clause (i) of this clause or in any other manner legally permissible; and 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 by Government to the contractor, without any interest thereon whatsoever.

Provided that the Government shall not be entitled to recover any sum overpaid, nor the contractor shall be entitled to payment of any sum paid short where such payment has been agreed upon between the Engineer-in-Charge on the one hand and the contractor on the other under any term of the contract permitting payment for work after assessment by the Engineer-in-Charge.

CLAUSE 29A **Lien in respect of claims in other Contracts**

Any sum of money due and payable to the contractor (including the security deposit returnable to him) under the contract may be withheld or retained by way of lien by the Engineer-in-Charge or the Government or any other contracting person or persons through Engineer-in-Charge against any claim of the Engineer-in-Charge or Government or such other person or persons in respect of payment of a sum of money arising out of or under, any other contract made by the contractor with the Engineer-in-Charge or the Government or with such other person or persons.

It is an agreed term of the contract that the sum of money so withheld or retained under this clause by the Engineer-in-Charge or the Government will be kept withheld or retained as such by the Engineer-in-Charge or the Government or till his claim arising out of the same contract or any other contract is either mutually settled or determined by the arbitration clause or by the competent court, as the case may be and that the contractor shall have no claim for interest or damages whatsoever on this account or on any other ground in respect of any sum of money withheld or retained under this clause and duly notified as such to the contractor.

CLAUSE 30 **Employment of coal mining or controlled area labour not permissible**

The contractor shall not employ coal mining or controlled area labour falling under any category whatsoever on or in connection with the work or recruit labour from area within a radius of 32 km (20 miles) of the controlled area. Subject as above the contractor shall employ imported labour only i.e., deposit imported labour or labour imported by contractors from area, from which import is permitted.

Where ceiling price for imported labour has been fixed by State or Regional Labour Committees not more than that ceiling price shall be paid to the labour by the contractor.

The contractor shall immediately remove any labourer who may be pointed out by the Engineer-in-Charge as being a coal mining or controlled area labourer,. Failure to do so shall render the contractor liable to pay to Government a sum calculated at the rate of Rs. 10/- per day per labourer. The certificate of the Engineer-in-Charge about the number of coal mining or controlled area labourer and the number of days for which they worked shall be final and binding upon all parties to this contract.

It is declared and agreed between the parties that the aforesaid stipulation in this clause is one in which the public are interested within the meaning of the exception in Section 74 of Indian contract Act, 1872.

Explanation: - Controlled Area means the following areas:

Districts of Dhanbad, Hazaribagh, Jamtara – a Sub-Division under Santhal Pargana Commissionery, Districts of Bankuara, Birbhum, Burdwan, District of Bilaspur.

Any other area which may be declared a Controlled Area by or with the approval of the Central Government.

CLAUSE 31 **Unfiltered water supply**

The contractor(s) shall make his/their own arrangements for water required for the work and nothing extra will be paid for the same. This will be subject to the following conditions.

- (i) That the water used by the contractor(s) shall be fit for construction purposes to the satisfaction of the Engineer-in-Charge.
- (ii) The Engineer-in-Charge shall make alternative arrangements for supply of water at the risk and cost of contractor(s) if the arrangements made by the contractor(s) for procurement of water are in the opinion of the Engineer-in-Charge, unsatisfactory.

CLAUSE 31A **Departmental water supply, if available**

Water if available may be supplied to the contractor by the Department subject to the following conditions:-

- (i) The water charges @ 1% shall be recovered on gross amount of the work done.
- (ii) The contractor(s) shall make his/their own arrangement of water connection and laying of pipelines from existing main of source of supply.
- (iii) The Department do not guarantee to maintain uninterrupted supply of water and it will be incumbent on the contractor(s) to make alternative arrangements for water at his/their own cost in the event of any temporary break down in the Government water main so that the progress of his/their work is not held up for want of water. No claim of damage or refund of water charges will be entertained on account of such break down.

CLAUSE 32 **Alternate water arrangements**

- (i) Where there is no piped water supply arrangement and the water is taken by the contractor from the wells or hand pump constructed by the government, no charge shall be recovered from the contractor on that account. The contractor shall, however, draw water at such hours of the day that it does not interfere with the normal use for which the hand pumps and wells are intended. He will also be responsible for all damage and abnormal repairs arising out of his use, the cost of which shall be recoverable from him. The Engineer-in-Charge shall be the final authority to determine the cost recoverable from the contractor on this account and his decision shall be binding on the contractor.
- (ii) The contractor shall be allowed to construct temporary wells in Government land for taking water for construction purposes only after he has got permission of the Engineer-in-Charge in writing. No charges shall be recovered from the contractor on this account, but the contractor shall be required to provide necessary safety arrangements to avoid any accidents or damage to adjacent buildings, roads and service lines. He shall be responsible for any accidents or damage caused due to construction and subsequent maintenance of the wells and shall restore that ground to its original condition after the wells are dismantled on completion of the work.

CLAUSE 33 **Return of Surplus materials**

Notwithstanding anything contained to the contrary in this contract, where any materials for the execution of the contract are procured with the assistance of Government either by issue from government stocks or purchase made under orders or permits or licences issued by Government, the contractor shall hold the said materials economically and solely for the purpose of the contract and not dispose of them without the written permission of the Government and return, if required by the Engineer-in-Charge, all surplus or unserviceable materials that may be left with him after the completion of the contract or at its termination for any reason whatsoever on being paid or credited such price as the Engineer-in-Charge shall determine having due regard to the condition of the materials. The price allowed to the contractor however shall not exceed the amount charged to him excluding the element of storage charges. The decision of the Engineer- in-Charge shall be final and conclusive. In the event of breach of the aforesaid condition, the contractor shall in addition to throwing himself open to action for contravention of the terms of the licence or permit and/or for criminal breach of trust, be liable to Government for all moneys, advantages or profits resulting or which in the usual course would have resulted to him by reason of such breach.

CLAUSE 34 **Hire of Plant & Machinery**

- (i) The contractor shall arrange at his own expense all tools, plant, machinery and equipment

(hereinafter referred to as T & P) required for execution of the work except for the Plant & Machinery listed in Schedule 'C' and stipulated for issue to the contractor. If the contractor requires any item of T&P on hire from the T & P available with the Government over and above the T&P stipulated for issue, the Government will, if such item is available, hire it to the contractor at rates to be agreed upon between him and the Engineer-in-Charge. In such a case, all the conditions hereunder for issue of T&P shall also be applicable to such T&P as is agreed to be issued.

- (ii) Plant and Machinery when supplied on hire charges shown in Schedule 'C' shall be made over and taken back at the departmental equipment yard/shed shown in Schedule 'C' and the contractor shall bear the cost of carriage from the place of issue to the site of work and back. The contractor shall be responsible to return the plant and machinery with condition in which it was handed over to him, and he shall be responsible for all damage caused to the said plant and machinery at the site of work or elsewhere in operation and otherwise during transit including damage to or loss of plant and for all losses due to his failure to return the same soon after the completion of the work for which it was issued. The Divisional Engineer shall be the sole judge to determine the liability of the contractor and its extent in this regard and his decision shall be final and binding on the contractor.
- (iii) The plant and machinery as stipulated above will be issued as and when available and if required by the contractor. The contractor shall arrange his programme of work according to the availability of the plant and machinery and no claim, whatsoever, will be entertained from him for any delay in supply by the Department.
- (iv) The hire charges shall be recovered at the prescribed rates from and inclusive of the date the plant and machinery made over upto and inclusive of the date of the return in good order even though the same may not have been working for any cause except major breakdown due to no fault of the contractor or faulty use requiring more than three working days continuously (excluding intervening holidays and Sundays) for bringing the plant in order. The contractor shall immediately intimate in writing to the Engineer-in-Charge when any plant or machinery gets out of order requiring major repairs as aforesaid. The Engineer-in-Charge shall record the date and time of receipt of such intimation in the log sheet of the plant or machinery. Based on this if the breakdown before lunch period or major breakdown will be computed considering half a day's breakdown on the day of complaint. If the breakdown occurs in the post lunch period of major breakdown will be computed starting from the next working day. In case of any dispute under this clause, the decision of the Engineer-in-charge shall be final and binding on the contractor.
- (v) The hire charges shown above are for each day of 8 hours (inclusive of the one hour lunch break) or part thereof.
- (vi) Hire charges will include service of operating staff as required and also supply of lubricating oil and stores for cleaning purposes. Power fuel of approved type, firewood, kerosene oil etc. for running the plant and machinery and also the full time chowkidar for guarding the plant and machinery against any loss or damage shall be arranged by the contractor who shall be fully responsible for the safeguard and security of plant and machinery. The contractor shall on or before the supply of plant and machinery sign an agreement indemnifying the Department against any loss or damage caused to the plant and machinery either during transit or at site of work.
- (vii) Ordinarily, no plant and machinery shall work for more than 8 hours a day inclusive of one hour lunch break. In case of an urgent work however, the Engineer-in-Charge may, at his discretion, allow the plant and machinery to be worked for more than normal period of 8 hours a day. In that case, the hourly hire charges for overtime to be borne by the contractor shall be 50% more than the normal proportionate hourly charges (1/8th of the daily charges) subject to a minimum of half day's normal charges on any particular day. For working out hire charges for over time, a period of half an hour and above will be charged as one hour and a period of less than half an hour will be ignored.

- (viii) The contractor shall release the plant and machinery every seventh day for periodical servicing and/or wash out which may take about three to four hours or more. Hire charges for full day shall be recovered from the contractor for the day of servicing/wash out irrespective of the period employed in servicing.
- (ix) The plant and machinery once issued to the contractor shall not be returned by him on account of lack of arrangements of labour and materials, etc. on his part, the same will be returned only when they are required for major repairs or when in the opinion of the Engineer-in-Charge, the work or a portion of work for which the same was issued is completed.
- (x) Log Book for recording the hours of daily work for each of the plant and machinery supplied to the contractor will be maintained by the Department and will be countersigned by the contractor or his authorized agent daily. In case the contractor contests the correctness of the entries and/or fails to sign the Log Book, the decision of the Engineer-in-Charge shall be final and binding on him. Hire charges will be calculated according to the entries in the Log book and will be binding on the contractor. Recovery on account of hire charges for road rollers shall be made for the minimum number of days worked out on the assumption that a roller can consolidate per day and maximum quantity of materials or area surfacing as noted against each in the annexed statement (see attached annexure).
- (xi) In the case of concrete mixers, the contractors shall arrange to get the hopper cleaned and the drum washed at the close of the work each day or each occasion.
 - (a) In case rollers for consolidation are employed by the contractor himself, log book for such rollers shall be maintained in the same manner as is done in case of departmental rollers, maximum quantity of any items to be consolidated for each roller-day shall also be same as in annexure to Clause 34(x). For less use of rollers, recovery for the less roller days shall be made at the stipulated issue rate.
- (xii) The contractor shall be responsible to return the plant and machinery in the condition in which it was handed over to him and he shall be responsible for all damage caused to the said plant and machinery at the site of work or elsewhere in operation or otherwise or during transit including damage to or loss of parts, and for all losses due to his failure to return the same soon after the completion of the work for which it was issued. The Divisional Engineer shall be the sole judge to determine the liability of the contractor and its extent in this regard and his decision shall be final and binding on the contractor.
- (xiii) The contractor will be exempted from levy of any hire charges for the number of days he is called upon in writing by the Engineer-in-Charge to suspend execution of the work, provided Government plant and machinery in question have, in fact, remained idle with the contractor because of the suspension.
- (xiv) In the event of the contractor not requiring any item of plant and machinery issued by Government though not stipulated for issue in Schedule 'C' any time after taking delivery at the place of issue, he may return it after two days written notice or at any time without notice if he agrees to pay hire charges for two additional days without, in any way, affecting the right of the Engineer-in-Charge to use the said plant and machinery during the said period of two days as he likes including hiring out to a third party.

CLAUSE 35**Condition relating to use of asphaltic materials**

- (i) The contractor undertakes to make arrangement for the supervision of the work by the firm supplying the tar or bitumen used.
- (ii) The contractor shall collect the total quantity of tar or bitumen required for the work as per standard formula, before the process of painting is started and shall hypothecate it to the Engineer-in-Charge. If any bitumen or tar remains unused on completion of the work on account of lesser use of materials in actual execution for reasons other than authorized

changes of specifications and abandonment of portion of work, a corresponding deduction equivalent to the cost of unused materials as determined by the Engineer-in-Charge shall be made and the material return to the contractors. Although the materials are hypothecated to Government, the contractor undertakes the responsibility for their proper watch, safe custody and protection against all risks. The materials shall not be removed from site of work without the consent of the Engineer-in-Charge in writing.

- (iii) The contractor shall be responsible for rectifying defects noticed within a year from the date of completion of the work and the portion of the security deposit relating to asphaltic work shall be refunded after the expiry of this period.

CLAUSE 36 Employment of Technical Staff and Employees

Contractors Superintendence, Supervision, Technical Staff & Employees

- (i) The contractor shall provide all necessary superintendence during execution of the work and all along thereafter as may be necessary for proper fulfilling of the obligations under the contract.

The contractor shall immediately after receiving letter of acceptance of the tender and before commencement of the work, intimate in writing to the Engineer-in-Charge, the name(s), qualifications, experience, age, address(s) and other particulars along with certificates, of the principal technical representative to be in charge of the work and other technical representative(s) who will be supervising the work. Minimum requirement of such technical representative(s) and their qualifications and experience shall not be lower than specified in Schedule 'F'. The Engineer-in-Charge shall within 3 days of receipt of such communication intimate in writing his approval or otherwise of such a representative(s) to the contractor. Any such approval may at any time be withdrawn and in case of such withdrawal, the contractor shall appoint another such representative(s) according to the provisions of this clause. Decision of the tender accepting authority shall be final and binding on the contractor in this respect. Such a principal technical representative and other technical representative(s) shall be appointed by the contractor soon after receipt of the approval from Engineer-in-Charge and shall be available at site before start of work.

All the provisions applicable to the principal technical representative under the Clause will also be applicable to other technical representative(s). The principal technical representative and other technical representative(s) shall be present at the site of work for supervision at all times when any construction activity is in progress and also present himself/themselves, as required, to the Engineer-in-Charge and/or his designated representative to take instructions. Instructions given to the principal technical representative or other technical representative(s) shall be deemed to have the same force as if these have been given to the contractor. The principal technical representative and other technical representative(s) shall be actually available at site fully during all stages of execution of work, during recording/checking/test checking of measurements of works and whenever so required by the Engineer-in-Charge and shall also note down instructions conveyed by the Engineer-in-Charge or his designated representative(s) in the site order book and shall affix his/their signature in token of noting down the instructions and in token of acceptance of measurements/ checked measurements/test checked measurements. The representative(s) shall not look after any other work. Substitutes, duly approved by Engineer-in-Charge of the work in similar manner as aforesaid shall be provided in event of absence of any of the representative(s) by more than two days.

If the Engineer-in-Charge, whose decision in this respect is final and binding on the contractor, is convinced that no such technical representative(s) is/are effectively appointed or is /are effectively attending or fulfilling the provision of this clause, a recovery (non-refundable) shall be effected from the contractor as specified in Schedule 'F' and the decision of the Engineer-in-Charge as recorded in the site order book and measurement

recorded checked/test checked in Measurement Books shall be final and binding on the contractor. Further if the contractor fails to appoint suitable technical Principal technical representative and/or other technical representative(s) and if such appointed persons are not effectively present or are absent by more than two days without duly approved substitute or do not discharge their responsibilities satisfactorily, the Engineer-in-Charge shall have full powers to suspend the execution of the work until such date as suitable other technical representative(s) is/are appointed and the contractor shall be held responsible for the delay so caused to the work. The contractor shall submit a certificate of employment of technical representative(s) along with every on account bill/final bill and shall produce evidence if at any time so required by the Engineer-in-Charge.

- (ii) The contractor shall provide and employ on the site only such technical assistants as are skilled and experienced in their respective fields and such foremen and supervisory staff as are competent to give proper supervision to the work.

The contractor shall provide and employ skilled, semiskilled and unskilled labour as is necessary for proper and timely execution of the work.

The Engineer-in-Charge shall be at liberty to object to and require the contractor to remove from the works any person who in his opinion misconducts himself, or is incompetent or negligent in the performance of his duties or whose employment is otherwise considered by the Engineer-in-Charge to be undesirable. Such person shall not be employed again at works site without the written permission of the Engineer-in-Charge and the persons so removed shall be replaced as soon as possible by competent substitutes.

CLAUSE 37 Levy/Taxes payable by Contractor

- (i) Sales Tax/VAT (including service tax), Building and other Construction Workers Welfare Cess or any other tax or cess in respect of this contract shall be payable by the contractor and Government shall not entertain any claim whatsoever in this respect.
- (ii) The contractor shall deposit royalty and obtain necessary permit for supply of the red bajri, stone, kankar, etc. from local authorities.
- (iii) If pursuant to or under any law, notification or order any royalty, cess or the like becomes payable by the Government of India and does not any time become payable by the contractor to the State Government/Local authorities in respect of any material used by the contractor in the works then in such a case, it shall be lawful to the Government of India and it will have the right and be entitled to recover the amount paid in the circumstances as aforesaid from dues of the contractor.
- (iv) ESI and EPF contributions in respect of this contract shall be payable by the contractor and any payment in respect of this shall be made by the contractor only and Government shall not entertain any claim whatsoever in this respect. In case of any demand from the ESI & EPF authorities against the contractor, the same shall be deducted from their bills/ dues.

CLAUSE 38 Conditions for reimbursement of levy/taxes if levied after receipt of tenders

- (v) All tendered rates shall be inclusive of all taxes and levies (including service tax) payable under respective statutes. However, if any further tax or levy or cess is imposed by Statute, after the last stipulated date for the receipt of tender including extensions if any and the contractor thereupon necessarily and properly pays such taxes/levies, the contractor shall be reimbursed the amount so paid, provided such payments, if any, is not, in the opinion of the Engineer-in-charge (whose decision shall be final and binding on the contractor) attributable to delay in execution of work within the control of the contractor.
- (vi) The contractor shall keep necessary books of accounts and other documents for the purpose of this condition as may be necessary and shall allow inspection of the same by a duly authorized representative of the Government and/or the Engineer-in-Charge and further

shall furnish such other information/document as the Engineer-in-Charge may require from time to time.

- (vii) The contractor shall, within a period of 30 days of the imposition of any such further tax or levy or cess, give a written notice thereof to the Engineer-in-Charge that the same is given pursuant to this condition, together with all necessary information relating thereto.

CLAUSE 39 Termination of Contract on death of contractor

Without prejudice to any of the rights or remedies under this contract, if the contractor dies, the authority indicated in Schedule 'F', on behalf of the President of India shall have the option of terminating the contract without compensation to the contractor.

CLAUSE 40 If relative working in MoHFW then the contractor not allowed to tender

The contractor shall not be permitted to tender for works in MoHFW (responsible for award and execution of contracts) in which his near relative is posted as Accountant or as an officer in any capacity between the grades of the Secretary and Group B Gazetted officer (both inclusive). He shall also intimate the names of persons who are working with him in any capacity or are subsequently employed by him and who are near relatives to any Gazetted Officer in the Ministry of Health and Family Welfare. Any breach of this condition by the contractor would render him liable to be debarred from tendering in the Department in future.

NOTE: By the term "near relatives" is meant wife, husband, parents and grandparents, children and grandchildren, brothers and sisters, uncles, aunts and cousins and their corresponding in-laws.

CLAUSE 41 No Gazetted Engineer to work as Contractor within one year of retirement

No Engineer of Gazetted rank or other Gazetted officer employed in Engineering or administrative duties in an engineering department of the Government of India shall work as a contractor or employee of a contractor for a period of one year after his retirement from government service without the previous permission of Government of India in writing. This contract is liable to be cancelled if either the contractor or any of his employees is found at any time to be such a person who had not obtained the permission of Government of India as aforesaid, before submission of the tender or engagement in the contractor's service, as the case may be.

CLAUSE 42 Return of material & recovery for excess material issued.

- (i) After completion of the work and also at any intermediate stage in the event of no reconciliation of materials issued, consumed and in balance – (see Clause 10), theoretical quantity of materials issued by the Government for use in the work shall be calculated on the basis and method given hereunder:-
- (a) Quantity of cement & bitumen shall be calculated on the basis of quantity of cement & bitumen required for different items of work as shown in the Schedule of Rates mentioned in Schedule 'F'. In case any item is executed for which standard constants for the consumption of cement or bitumen are not available in the above mentioned schedule/statement or cannot be derived from the same shall be calculated on the basis of standard formula to be laid down by the Engineer-in-Charge.
 - (b) Theoretical quantity of steel reinforcement or structural steel sections shall be taken as the quantity required as per design or as authorized by Engineer-in-Charge, including authorized lappages, chairs etc. plus 3% wastage due to cutting into pieces, such theoretical quantity being determined and compared with the actual issues each diameter wise, section wise and category wise separately.

- (c) Theoretical quantity of G.I. & C.I. or other pipes, conduits, wires and cables, pig lead and G.I./M.S. sheets shall be taken as quantity actually required and measured plus 5% for wastage due to cutting into pieces (except in the case of G.I./M.S. sheets it shall be 10%), such determination & comparison being made diameter wise & category wise.
- (d) For any other material as per actual requirements.
- (ii) Over the theoretical quantities of materials so computed a variation shall be allowed as specified in Schedule 'F'. The difference in the net quantities of material actually issued to the contractor and the theoretical quantities including such authorized variation, if not returned by the contractor or if not fully reconciled to the satisfaction of the Engineer-in-Charge within fifteen days of the issue of written notice by the Engineer-in-Charge to this effect shall be recovered at the rates specified in Schedule 'F', without prejudice to the provision of the relevant conditions regarding return of materials governing the contract. Decision of Engineer-in-Charge in regard to theoretical quantities of materials, which should have been actually used as per the Annexure of the standard schedule of rates and recovery at rates specified in Schedule 'F', shall be final & binding on the contractor.
- For non-scheduled items, the decision of the Superintending Engineer regarding theoretical quantities of materials which should have been actually used shall be final and binding on the contractor.
- (iii) The said action under this clause is without prejudice to the right of the Government to take action against the contractor under any other conditions of contract for not doing the work according to the prescribed specifications.

CLAUSE 43 Compensation during warlike situations

The work (whether fully constructed or not) and all materials, machines, tools and plants, scaffolding, temporary buildings and other things connected therewith shall be at the risk of the contractor until the work has been delivered to the Engineer-in-Charge and a certificate from him to that effect obtained. In the event of the work or any materials properly brought to the site for incorporation in the work being damaged or destroyed in consequence of hostilities or warlike operation, the contractor shall when ordered (in writing) by the Engineer-in-Charge to remove any debris from the site, collect and properly stack or remove in store all serviceable materials salvaged from the damaged work and shall be paid at the contract rates in accordance with the provision of this agreement for the work of clearing the site of debris, stacking or removal of serviceable material and for reconstruction of all works ordered by the Engineer-in-Charge, such payments being in addition to compensation up to the value of the work originally executed before being damaged or destroyed and not paid for. In case of works damaged or destroyed but not already measured and paid for, the compensation shall be assessed by the Engineer-in-charge or his authorized representative. The contractor shall be paid for the damages/destruction suffered and for restoring the material at the rate based on analysis of rates tendered for in accordance with the provision of the contract. The certificate of the Engineer-in-Charge regarding the quality and quantity of materials and the purpose for which they were collected shall be final and binding on all parties to this contract.

Provided always that no compensation shall be payable for any loss in consequence of hostilities or warlike operations (a) unless the contractor had taken all such precautions against air raid as are deemed necessary by the A.R.P. Officers or the Engineer-in-Charge (b) for any material etc. not on the site of the work or for any tools, plant, machinery, scaffolding, temporary building and other things not intended for the work.

In the event of the contractor having to carry out reconstruction as aforesaid, he shall be allowed such extension of time for its completion as is considered reasonable by the Divisional Officer.

CLAUSE 44 Apprentices Act provisions to be complied with

The contractor shall comply with the provisions of the Apprentices Act, 1961 and the rules and orders issued there under from time to time. If he fails to do so, his failure will be a breach of the contract and the Client may, in his discretion, cancel the contract. The contractor shall also be liable for any pecuniary liability arising on account of any violation by him of the provisions of the said Act.

CLAUSE 45 Release of Security deposit after labour clearance

Security Deposit of the work shall not be refunded till the contractor produces a clearance certificate from the Labour Officer. As soon as the work is virtually complete the contractor shall apply for the clearance certificate to the Labour Officer under intimation to the Engineer-in-Charge. The Engineer-in-Charge, on receipt of the said communication, shall write to the Labour Officer to intimate if any complaint is pending against the contractor in respect of the work. If no complaint is pending, on record till after 3 months after completion of the work and/or no communication is received from the Labour Officer to this effect till six months after the date of completion, it will be deemed to have received the clearance certificate and the Security Deposit will be released if otherwise due.

CLAUSE 46 Insurance

46.1 Without limiting the Contractor's obligations and responsibilities stated elsewhere in the Contract, the Contractor shall at his own cost arrange, secure and maintain insurance in the joint names of the HLL/ Client and the contractor with an insurance company selected by the contractor and acceptable to the HLL/ Client/Consultant, in such a manner that the HLL/ Client and the contractor are covered for all time during the period of contract i.e. the time period allowed for completion of work, extended period and the defect liability period. The insurance shall be effected in accordance with terms approved by the HLL/ Client and the contractor shall submit the insurance policies to the Engineer-In-Charge within one week of signing of the agreement along with the receipt of premium. The contractor shall timely pay and submit the receipts of payment of premiums for extensions of policies, if any. The insurance shall cover the following: -

a) Contractor's All Risks Insurance

The contractor shall insure the work for a sum equivalent to the Contract value together with materials and Plant for incorporation therein, to the full replacement cost and it being understood that such insurance shall provide for compensation to be payable to rectify the loss or damage incurred, and, an additional sum of 15 (%) per-cent of such replacement cost to cover any additional costs of and incidental to the rectification of loss or damage including professional fees and the cost of demolishing and removing any part of the Works and of removing debris of whatsoever nature, and it being understood that such insurance shall provide for compensation to be payable to rectify the loss or damage incurred or such additional sums as specified and the interests of the HLL/ Client against ALL RISKS claims, proceedings, loss or damages, costs, charges and expenses from whatsoever cause arising out of or in consequence of the execution and maintenance of the work for which the contractor is responsible under the contract.

b) Workman Compensation & Employers Liability Insurance.

This insurance shall be effected for all the contractor's employees engaged in the performance of the contract. The HLL/ Client shall not be liable in respect of any damages or compensation payable at law in respect of or in consequence of any accident or injury to any workman or any other person in the employment of the contractor and the contractor shall indemnify and keep indemnified the HLL/Client against all such damages and compensation and against all claims, demands, proceedings, costs, charges and expenses, whatsoever in respect or in relation thereof.

c) Third Party Insurance.

The contractor shall be responsible for making good to the satisfaction of the Engineer-in-Charge any loss or any damage to all structures and properties belonging to the HLL/ Client or being executed or procured or being procured by the HLL/ Client or of the other agencies within the premises of all work of the HLL/ Client if such loss or damage is due to fault and or the negligence or willful acts or omissions of the contractor, his employees, agents, representatives.

The contractor shall take sufficient care in moving his plants, equipment and materials from one place to another so that they do not cause any damage to any person or to the property of the HLL/ Client or any third party including overhead and underground cables and in the event of any damage resulting to the property of the HLL/ Client or to a third party during the movement of the aforesaid plant, equipment or materials, the cost of such damages including eventual loss of production, operation or services in any plant or establishment as estimated by the HLL/ Client or ascertained or demanded by the third party, shall be borne by the contractor.

Before commencing the execution of the work, the contractor, shall insure and indemnify and keep the HLL/ Client harmless of all claims, against the contractor's liability for any materials or physical damage, loss or injury which may occur to any property, including that of the HLL/ Client or to any person including any employee of HLL/ Client, or arising out of the execution of the work or in the carrying out of the contract, otherwise than due to the matters referred to in the provision to (a) above. Such insurance shall be effected for an amount sufficient to cover such risks. The terms shall include a provision whereby, in the event of any claim in respect of which the contractor, would be entitled to receive indemnify under the policy being brought or made against the HLL/ Client, the insurer willfully indemnify HLL/ Client against such claims and any costs, charges and expenses in respect thereof.

- d) The contractor shall also at times indemnify the HLL/ Client against all claims, damages or compensation under the provisions of Payment or Wages Act, 1936, Minimum Wages Act, 1948, Employer's Liability Act, 1938, the Workman's Compensation Act, 1947, Industrial Disputes Act, 1947 and Maternity Benefit Act, 1961, or any modification thereof or any other law relating thereof and rules made there under from time to time.
- e) The Contractor shall also at his own cost carry and maintain any and all other insurance(s) which he may be required for the Contractor's Equipment and other things brought onto the Site by the Contractor, for a sum sufficient to provide for their replacement at the Site
- f) The Contractor shall also at his own cost carry and maintain any and all other insurance(s) which he may be required to take out under any law or regulation from time to time. He shall also carry and maintain any other insurance, which may be required by the Engineer-in-Charge.
- g) **Cross liabilities:** -The insurance policy shall include a cross liability clause such that the insurance shall apply to the contractor and to the client/HLL as separate insured.

46.2.1 The Contractor shall prove to the Engineer-in-charge from time to time he has taken out all the insurance policies referred to above and has paid the necessary premiums for keeping the policies alive till expiry of the Defects Liability Period.

46.2.2 Evidence and Terms of Insurance

The Contractor shall provide evidence to the Consultant as soon as practicable after the respective insurance have been taken out but in any case prior to the start of work at the Site that insurance required under the Contract have been effected and shall, within 84 days of the Commencement Date, provide the insurance policies to the Client/HLL. When providing such evidence and such policies to the Client/HLL, the Contractor shall notify to the Engineer in Charge also. Such insurance policies shall be consistent with the general terms agreed prior to the issue of the Letter of Acceptance. The Contractor shall effect all insurance for which he is responsible with insurers and in terms approved by the Consultant.

46.2.3 Adequacy and cancellation of Insurance

- a) The Contractor shall notify the insurers of changes in the nature, extent or programme for the execution of the Works and ensure the continuity and adequacy of the insurance at all times in accordance with the terms of the Contract and shall, when required, produce to the Consultant the insurance policies in force and the receipts for payment of the current premiums.
- b) The aforesaid insurance policies shall provide that they shall not be cancelled till the Engineer-in-charge has agreed for cancellation.

46.3 Remedy on the contractor's failure to insure

If the contractor shall fail to effect and keep in force the insurance referred to above or any other insurance which he/they may be required to effect under the terms of the contract then and in any such case Engineer-in-charge may without being bound to, effect and keep in force any such insurance and pay such premium or premiums, as may be necessary for that purpose and from time to time deduct the amount so paid by the Engineer-in-charge from any moneys due or which may become due to the contractor or recover the same as a debt due from the contractor.

46.4 Compliance with Policy Conditions

In the event that the Contractor fails to comply with conditions imposed by the insurance policies effected pursuant to the Contract, the Contractor indemnify the Client/HLL against all losses and claims arising from such failure.

SECTION-3**SAFETY CODE**

1. Suitable scaffolds should be provided for workmen for all works that cannot safely be done from the ground, or from solid construction except such short period work as can be done safely from ladders. When a ladder is used an extra Mazdoor shall be engaged for holding the ladder and if the ladder is used for carrying materials as well suitable footholds and hand-hold shall be provided on the ladder and the ladder shall be given an inclination not steeper than $\frac{1}{4}$ to 1 (1/4 horizontal and 1 vertical).
2. Scaffolding of staging more than 3.6 m (12 ft.) above the ground or floor, swung or suspended from an overhead support or erected with stationary support shall have a guard rail properly attached or bolted, braced and otherwise secured at least 90 cm (3 ft.) high above the floor or platform of such scaffolding or staging and extending along the entire length of the outside and ends thereof with only such opening as may be necessary for the delivery of materials. Such scaffolding or staging shall be so fastened as to prevent it from swaying from the building or structure.
3. Working Platforms, gangways and stairways should be so constructed that they should not sag unduly or unequally, and if the height of the platform or the gangway or the stairway is more than 3.6 m (12 ft.) above ground level or floor level, they should be closely boarded, should have adequate width and should be suitably fastened as described in (2) above.
4. Every opening in the floor of a building or in a working platform shall be provided with suitable means to prevent the fall of person or materials by providing suitable fencing or railing whose minimum height shall be 90 cm (3 ft.).
5. Safe means of access shall be provided to all working platforms and other working places. Every ladder shall be securely fixed. No portable single ladder shall be over 9 m (30 ft) in length while the width between side rails in rung ladder shall in no case be less than 29 cm. (11 $\frac{1}{2}$ ") for ladder up to and including 3 metre (10 ft.) in length. For longer ladders this width should be increased at least $\frac{1}{4}$ " for each additional 30 cm.(1 foot) of length. Uniform step spacing of not more than 30 cm shall be kept. Adequate precautions shall be taken to prevent danger from electrical equipment. No materials on any of the sites or work shall be so stacked or placed as to cause danger or inconvenience to any person or the public. The contractor shall provide all necessary fencing and lights to protect the public from accident and shall be bound to bear the expenses of defence of every suit, action or other proceedings at law that may be brought by any person for injury sustained owing to neglect of the above precautions and to pay any damages and cost which may be awarded in any such suit, action or proceedings to any such person or which may, with the consent of the contractor, be paid to compensate any claim by any such person.
6. Excavation and trenching- All trenches 1.2 m (4 ft.) or more in depth, shall at all times be supplied with at least one ladder for each 30 metre (100 ft) in length or fraction thereof. Ladder shall extend from bottom of the trench to at least 90 cm. (3 ft) above the surface of the ground. The sides of the trenches, which are 1.5 m (5 ft) or more in depth shall be stepped back to give suitable slope or securely held by timber bracing, so as to avoid the danger of sides collapsing. The excavated material shall not be placed within 1.5 m (5 ft) of the edges of the trench or half of the depth of the trench whichever is more. Cutting shall be done from top to bottom. Under no circumstances undermining or undercutting shall be done.
7. Demolition. - Before any demolition work is commenced and also during the progress of the work,
 - i) All roads and open areas adjacent to the work site shall either be closed or suitably protected.
 - ii) No electric cable or apparatus which is liable to be a source of danger or a cable or apparatus used by the operator shall remain electrically charged.

- iii) All practical steps shall be taken to prevent danger to persons employed from risk of fire or explosion or flooding. No floor, roof or other part of the building shall be so overloaded with debris or materials as to render it unsafe.
8. All necessary personal safety equipment as considered adequate by the Engineer- in-Charge should be kept available for the use of the person employed on the site and maintained in a condition suitable for immediate use, and the contractor should take adequate steps to ensure proper use of equipment by those concerned. The following safety equipment shall invariably be provided.
- i) Workers employed on mixing asphaltic materials, cement and lime mortars shall be provided with protective footwear and protective goggles.
 - ii) Those engaged in whitewashing and mixing or stacking of cement bags or any material, which is injurious to the eyes, shall be provided with protective goggles.
 - iii) Those engaged in welding works shall be provided with welder's protective eye shields.
 - iv) Stone breakers shall be provided with protective goggles and protective clothing and seated at sufficiently safe intervals.
 - v) When workers are employed in sewers and manholes, which are in active use, the contractors shall ensure that the manhole covers are opened and ventilated at least for an hour before the workers are allowed to get into manholes and the manholes so opened shall be cordoned off with suitable railing and provided with warning signals or boards to prevent accident to the public. In addition, the contractor shall ensure that the following safety measures are adhered to:-
 - a) Entry for workers into the line shall not be allowed except under supervision of the Engineer in Charge or any other higher officer.
 - b) At least 5 to 6 manholes upstream and downstream should be kept open for at least 2 to 3 hours before any man is allowed to enter into the manhole for working inside.
 - c) Before entry presence of toxic gases should be tested by inserting wet lead acetate paper, which changes colour in the presence of such gases and gives indication of their presence.
 - d) Presence of oxygen should be verified by lowering a detector lamp into the manhole. In case, no oxygen is found inside the sewer line, worker should be send only with oxygen kit.
 - e) Safety belt with rope should be provided to the workers. While working inside the manhole such rope should be handled by two men standing outside to enable him to be pulled out during emergency.
 - f) The area should be barricaded or cordoned off by suitable means to avoid mishaps of any kind. Proper warning signs should be displayed for the safety of the public whenever for the cleaning works are undertaken during night or day.
 - g) No smoking or open flames shall be allowed near the blocked manhole being cleaned.
 - h) The malba obtained on account of cleaning of blocked manholes and sewer lines should be immediately removed to avoid accidents on account of slippery nature of the malba.
 - i) Workers should not be allowed to work inside the manhole continuously. He should be given rest intermittently. The Engineer-in-Charge may decide the time upto which worker may be allowed to work continuously inside the manhole.
 - j) Gas masks with Oxygen cylinder should be kept at site for use in emergency.
 - k) Air blowers should be used for flow of fresh air through the manholes.
Whenever called for, portable air blowers are recommended for ventilating the manholes. The motors for these, shall be vapour proof and of totally enclosed type. Non-sparking gas engines also could be used but they should be placed at least 2 metres away from the opening and on the leeward side, protected from wind so that

they will not be the source of friction on any inflammable gas that might be present.

- l) The workers engaged for cleaning the manholes/sewers should be properly trained before allowing working in the manhole.
 - m) The worker shall be provided with Gumboots or non-sparking shoes bump helmets and gloves non-sparking tools and safety lights and gas masks and portable air-blowers (when necessary). They must be supplied with barrier cream for anointing the limits before working inside the sewer lines.
 - n) Workmen descending a manhole shall try each ladder stop or rung carefully before putting his full weight on it to guard against insecure fastening due to corrosion of the rung fixed to manhole well.
 - o) If a man has received a physical injury, he should be brought out of the sewer immediately and adequate medical aid should be provided to him.
 - p) The extent to which these precautions are to be taken depend on individual situation but the decision of the Engineer-in-Charge regarding the steps to be taken in this regard in an individual case will be final.
 - vi) The contractor shall not employ men and women below the age of 18 years on the work of painting with products containing lead in any form. Whenever men above the age of 18 years are employed on the work of lead painting, the following precautions should be taken: -
 - a) No paint containing lead or lead products shall be used except in the form of paste or readymade paint.
Suitable face masks should be supplied for use by the workers when paint is applied in the form of spray or a surface having lead paint is dry rubbed and scrapped.
 - b) Overalls shall be supplied by the contractors to the workmen and adequate facilities shall be provided to enable the working painters to wash during and on the cessation of work.
9. As per additional clause (viii)(i)of Government Safety Code(iv), the Contractor shall not employ women and men below the age of 18 years on the work of painting with product containing lead in any form. Whenever men above the age of 18 are employed on the work of lead painting, the following principles must be observed for such use:
- i) White lead, sulphate of lead or product containing these pigments, shall not be used in painting operation except in the form of pastes or paint ready for use.
 - ii) Measures shall be taken, wherever required in order to prevent danger arising from the application of paint in the form of spray.
 - iii) Measures shall be taken, wherever practicable to prevent danger arising out of from dust caused by dry rubbing down and scrapping.
 - iv) Adequate facilities shall be provided to enable working painters to wash during and on cessation of work
 - v) Overall shall be worn by working painters during the whole of working period.
 - vi) Suitable arrangement shall be made to prevent clothing put off during working hours being spoiled by painting materials.
 - vii) Cases of lead poisoning and suspected lead poisoning shall be notified and shall be subsequently verified by medical man appointed by the competent authority of Department.
 - viii) Department may require, when necessary, medical examination of workers.
 - ix) Instructions with regard to special hygienic precautions, to be taken in the painting trade, shall be distributed to working painters.
10. When the work is done near any place where there is risk of drowning, all necessary equipment should be provided & kept ready for use and all necessary steps taken for prompt rescue of any person in danger and adequate provision, should be made for prompt first aid

treatment of all injuries likely to be obtained during the course of the work.

11. Use of hoisting machines and tackle including their attachments, anchorage and supports shall conform to the following standards or conditions: -
 - (i) (a) These shall be of good mechanical construction, sound materials and adequate strength and free from patent defects and shall be kept repaired and in good working order.
 - (b) Every rope used in hoisting or lowering materials or as means of suspension shall be of durable quality and adequate strength, and free from patent defects.
 - (ii) Every crane driver or hoisting appliance operator shall be properly qualified and no person under the age of 21 years should be in charge of any hoisting machine including any scaffolding winch or give signals to operator.
 - (iii) In case of every hoisting machine and of every chain ring hook, shackle swivel and pulley blocks used in hoisting or as means of suspension the safe working load shall be ascertained by adequate means. Every hoisting machine and all gear referred to above shall be plainly marked with the safe working load. In case of hoisting machine having a variable safe working load each safe working load and the condition under which it is applicable shall be clearly indicated. No part of any machine or any gear, referred to above in this paragraph shall be loaded beyond the safe working load except for the purpose of testing.
 - (iv) In case of departmental machines, the safe working load shall be notified by the Electrical Engineer-in-Charge. As regard contractor's machines the contractors shall notify the safe working load of the machines to the Engineer-in-Charge whenever he brings any machinery to the site of work and get it verified by the Electrical Engineer concerned.
12. Motors, gearing, transmission, electric wiring and other dangerous parts of hoisting appliances should be provided with efficient safeguards. Hoisting appliances should be provided with such means as will reduce to the minimum the risk of accidental descent of the load. Adequate precautions should be taken to reduce to the minimum the risk of any part of a suspended load becoming accidentally displaced. When workers are employed on electrical installations, which are already energised, insulating mats, wearing apparel, such as gloves, sleeves and boots, as may be necessary, should be provided. The worker should not wear any rings, watches and carry keys or other materials, which are good conductors of electricity.
13. All scaffolds ladders and other safety devices mentioned or described herein shall be maintained in safe condition and no scaffold, ladder or equipment shall be altered or removed while it is in use. Adequate washing facilities should be provided at or near places of work.
14. These safety provisions should be brought to the notice of all concerned by display on a notice board at a prominent place at work spot. The person responsible for compliance of the safety code shall be named therein by the contractor.
15. To ensure effective enforcement of the rules and regulations relating to safety precautions the arrangements made by the contractor shall be open to inspection by Labour Officer or the Engineer-in-Charge or their representatives.
16. Notwithstanding the above clauses from (1) to (15) there is nothing in these to exempt the contractor from the operations of any other Act or Rule in force in the Republic of India.

SECTION -4**RULES FOR THE PROTECTION OF HEALTH AND SANITARY ARRANGEMENTS FOR WORKERS EMPLOYED BY CONTRACTORS****1. APPLICATION**

These rules shall apply to all buildings and construction works in charge of the MoHFW in which twenty or more workers are ordinarily employed or are proposed to be employed in any day during the period during which the contract work is in progress.

2. DEFINITION

Work place means a place where twenty or more workers are ordinarily employed in connection with construction work, on any day during the period, during which the contract work is in progress.

3. FIRST-AID FACILITIES

- i) At every work place there shall be provided and maintained, so as to be easily accessible during working hours, first aid boxes at the rate of not less than one box for 150-contract labour or part thereof ordinarily employed.
- ii) The first-aid box shall be distinctly marked with a red cross on white back ground and shall contain the following equipment: -
 - a) For work places in which the number of contract labour employed does not exceed 50- Each first-aid box shall contain the following equipment: -
 1. 6 small sterilised dressings.
 2. 3 medium size sterilised dressings.
 3. 3 large size sterilised dressings.
 4. 3 large sterilised burn dressings.
 5. 1 (30 ml.) bottle containing a two per-cent alcoholic solution of iodine
 6. 1 (30ml) bottle containing salvolatile having the dose and mode of administration indicated on the label.
 7. 1 snakebite lancet.
 8. 1 (30gms.) bottle of potassium permanganate crystals.
 9. 1 pair scissors.
 10. 1 copy of the first-aid leaflet issued by the Director General, Factory Advice Service and Labour Institute, Government of India or his Client.
 11. 1 Bottle containing 100 tablets (each of 5 gms.) of aspirin.
 12. Ointment for burns.
 13. A bottle of suitable surgical antiseptic solution
 - b) For workplaces in which the number of contract labour exceeds 50- Each first-aid- box shall contain the following equipment.
 1. 12 small sterilized dressing.
 2. 6 medium size sterilised dressings.
 3. 6 large size sterilised dressings.
 4. 6 large size sterilised burn dressings.
 5. 6 (15-gms.) packets sterilised cotton wool.

6. 1 (60 ml.) bottle containing two per-cent alcoholic solution iodine.
 7. 1 (60-ml.) bottle containing salvolatile having the dose and mode of administration indicated on the label.
 8. 1 roll of adhesive plaster.
 9. 1 snake bite lancet.
 10. 1 (30gms.) Bottle of potassium permanganate crystals.
 11. 1 pair of scissors.
 12. 1copy of the first-aid leaflet issued by the Director General Factory Advice Service and Labour Institute/ Government of India or Client of India.
 13. A bottle containing 100 tablets (each of 5 gms.) of aspirin.
 14. Ointment for burns.
 15. A bottle of suitable surgical antiseptic solution.
- iii) Adequate arrangements shall be made for immediate procurement of the equipment when necessary.
 - iv) Nothing except the prescribed contents shall be kept in the First-aid box.
 - v) The first-aid box shall be kept in charge of a responsible person who shall always be readily available during the working hours at the work place.
 - vi) A person in charge of the first-aid box shall be a person trained in First-Aid treatment, at the work places where the number of contract labour employed is 150 or more.
 - vii) In work places where the number of contract labour employed is 500 or more and hospital facilities are not available within easy distance from the works, First-aid posts shall be established and run by a trained compounder. The compounder shall be on duty and shall be available at all hours when the workers are at work.
 - viii) Where work places are situated in places, which are not towns or cities, a suitable motor transport shall be kept readily available to carry injured person or person suddenly taken ill to the nearest hospital.

4. DRINKING WATER

- i) In every work place, there shall be provided and maintained, at suitable places, easily accessible to labour, a sufficient supply of cold water fit for drinking.
- ii) Where drinking water is obtained from an intermittent public water supply, each work place shall be provided with storage where such drinking water shall be stored.
- iii) Every water supply or storage shall be at a distance of not less than 50 feet from any latrine drain or other source of pollution. Where water has to be drawn from an existing well, which is within such proximity of latrine, drain or any other source of pollution, the well shall be properly chlorinated before water is drawn from it or for drinking. All such wells shall be entirely closed in and be provided with a trap door, which shall be dust and waterproof.
- iv) A reliable pump shall be fitted to each covered well, the trap door shall be kept locked and opened only for cleaning or inspection which shall be done at least once a month.

5. WASHING FACILITIES

- i) In every work place adequate and suitable facilities for washing shall be provided and maintained for the use of contract labour employed therein.
- ii) Separate and adequate cleaning facilities shall be provided for the use of male and female workers.
- iii) Such facilities shall be conveniently accessible and shall be kept in clean and hygienic condition.

6. LATRINES AND URINALS

- i) Latrines shall be provided in every work place on the following scale namely:-
- a) Where female are employed there shall be at least one latrine for every 25 females.
 - b) Where males are employed, there shall be at least one latrine for every 25 males.
- Provided that where the number of males or females exceeds 100, it shall be sufficient if there is one latrine for 25 males or females as the case may be up to the first 100, and one for every 50 thereafter.
- ii) Every latrine shall be under cover and so partitioned off as to secure privacy, and shall have a proper door and fastenings.
- iii) Construction of latrines: The inside walls shall be constructed of masonry or some suitable heat-resisting non-absorbent materials and shall be cement washed inside and outside at least once a year. Latrines shall not be of a standard lower than bore-hole system.
- iv)
 - a) Where workers of both sexes are employed, there shall be displayed outside each block of latrine and urinal, a notice in the language understood by the majority of the workers "For Men only" or "For Women only" as the case may be.
 - b) The notice shall also bear the figure of a man or a woman, as the case may be.
 - v) There shall be at least one urinal for up to 50 number of male workers and one for upto 50 number of female workers employed at a time, provided that where the number of male or female workers, as the case may be, exceeds 500, it shall be sufficient if there is one urinal for every 50 males or females, up to the first 500 and one for every 100 or part thereafter.
 - vi)
 - a) The latrines and urinals shall be adequately lighted and shall be maintained in a clean and sanitary condition at all times.
 - b) Latrines and urinals other than those connected with a flushes wage system shall comply with the requirements of the Public Health Authorities.
 - vii) Water shall be provided by means of tap or otherwise so as to be conveniently accessible in or near the latrines and urinals.
 - viii) Disposal of excreta: - Unless otherwise arranged for by the local sanitary authority, arrangements for proper disposal of excreta by incineration at the work place shall be made by means of a suitable incinerator. Alternately excreta may be disposed off by putting a layer of night soil at the bottom of a pucca tank prepared for the purpose and covering it with a 15 cm. layer of waste or refuse and then covering it with a layer of earth for a fortnight (When it will turn to manure).
 - ix) The contractor shall at his own expense, carry out all instructions issued to him by the Engineer-in-Charge to effect proper disposal of night soil and other conservancy work in respect of the contractor's workmen or employees on the site. The contractor shall be responsible for payment of any charges, which may be levied by Municipal or Cantonment Authority for execution of such on his behalf.

7. PROVISION OF SHELTER DURING REST

At every place there shall be provided, free of cost, four suitable sheds, two for meals and the other two for rest separately for the use of men and women labour. The height of each shelter shall not be less than 3 metres (10 ft.) from the floor level to the lowest part of the roof. These shall be kept clean and the space provided shall be on the basis of 0.6 sq. m. (6 sft.) per head.

Provided that the Engineer-in-Charge may permit, subject to his satisfaction, a portion of the building under construction or other alternative accommodation to be used for the purpose.

8. CRECHES

- i) At every work place, at which 20 or more women worker are ordinarily employed, there shall be provided two rooms of reasonable dimensions for the use of their children under the age of six years. One room shall be used as a playroom for the children and the other as their bedroom. The rooms shall be constructed with specifications as per clause 19 H (ii) a, b & c.
- ii) The rooms shall be provided with suitable and sufficient openings for light and ventilation. There shall be adequate provision of sweepers to keep the places clean.
- iii) The contractor shall supply adequate number of toys and games in the playroom and sufficient number of cots and beddings in the bedroom.
- iv) The contractor shall provide one ayah to look after the children in the crèche when the number of women workers does not exceed 50 and two when the number of women workers exceeds 50.
- v) The use of the room sear marked as crèches shall be restricted to children, their attendants and mothers of the children.

9. CANTEENS

- i) In every work place where the work regarding the employment of contract labour is likely to continue for six months and where in contract labour numbering one hundred or more are ordinarily employed, an adequate canteen shall be provided by the contractor for the use of such contract labour.
- ii) The contractor shall maintain the canteen in an efficient manner.
- iii) The canteen shall consist of atleast a dining hall, kitchen, storeroom, pantry and washing places, separately for workers and utensils.
- iv) The canteen shall be sufficiently lighted at all times when any person has access to it.
- v) The floor shall be made of smooth and impervious materials and inside walls shall be lime-washed or colour washed atleast once in each year. Provided that the inside walls of the kitchen shall be lime-washed every 4 months.
- vi) The premises of the canteen shall be maintained in a clean and sanitary condition.
- vii) Wastewater shall be carried away in suitable covered drains and shall not be allowed to accumulate so as to cause a nuisance.
- viii) Suitable arrangements shall be made for the collection and disposal of garbage.
- ix) The dining hall shall accommodate at a time 30 percent of the contract labour working at a time.
- x) The floor area of the dining hall, excluding the area occupied by the service counter and any furniture, except tables and chairs, shall not be less than one square metre (10 sft.) per diner to be accommodated as prescribed in sub-Rule 9.
 - a) A portion of the dining hall and service counter shall be partitioned off and reserved for women workers in proportion to their number.
 - b) Washing places for women shall be separate and screened to secure privacy.
- xii) Sufficient tables' stools, chair or benches shall be available for the number of diners to be accommodated as prescribed in sub-Rule 9
- xiii) a)
 1. There shall be provided and maintained, sufficient utensils, crockery, furniture and

- any other equipment's, necessary for the efficient running of the canteen.
2. The furniture utensils and other equipment shall be maintained in a clean and hygienic condition.
- b)
1. Suitable clean clothes for the employees serving in the canteen shall be provided and maintained.
 2. A service counter, if provided, shall have top of smooth and impervious material.
 3. Suitable facilities including an adequate supply of hot water shall be provided for the cleaning of utensils and equipment's.
- xiv) The foodstuffs and other items to be served in the canteen shall be in conformity with the normal habits of the contract labour.
- xv) The charges for foodstuffs, beverages and any other items served in the canteen shall be based on 'No profit, No loss' and shall be conspicuously displayed in the canteen.
- xvi) In arriving at the price of food stuffs, and other articles served in the canteen, the following items shall not be taken into consideration as expenditure namely: -
- a) The rent of land and building.
 - b) The depreciation and maintenance charge for the building and equipment's provided for the canteen.
 - c) The cost of purchase, repairs and replacement of equipment's including furniture, crockery, cutlery and utensils.
 - d) The water charges and other charges incurred for lighting and ventilation.
 - e) The interest and amounts spent on the provision and maintenance of equipment's provided for the canteen.
- xvii) The accounts pertaining to the canteen shall be audited once every 12 months by registered accountants and auditors.

10. ANTI-MALARIAL PRECAUTIONS

The contractor shall at his own expense, conform to all anti-malarial instructions given to him by the Engineer-in-Charge including the filling-up of any borrow pits which may have been dug by him.

- 11.** The above rules shall be incorporated in the contracts and in notices inviting tenders and shall form an integral part of the contracts.

12. AMENDMENTS

Department may, from time to time, add to or amend these rules and issue directions it may consider necessary for the purpose of removing any difficulty, which may arise in the administration thereof.

SECTION-5**CONTRACTOR'S LABOUR REGULATIONS TO BE FOLLOWED IN THIS PROJECT****1. SHORT TITLE**

These may be called Contractors Labour Regulations and shall be followed by the Contractor for this Project.

2. DEFINITIONS

i) **Workman** means, any person employed by Department or its contractor directly or indirectly, through a subcontractor, with or without the knowledge of the Department, to do any skilled, semiskilled or unskilled, manual, supervisory, technical or clerical work, for hire or reward, whether the terms of employment are expressed or implied, but does not include any person: -

- a) Who is employed mainly in a managerial or administrative capacity; or,
- b) Who, being employed in a supervisory capacity draws wages exceeding five hundred rupees per mensem or exercises either by the nature of the duties attached to the office or by reason of powers vested in him, functions mainly of managerial nature; or,
- c) Who is an out worker, that is to say, person to whom any article or materials are given out by or on behalf of the principal employers to be made up cleaned, washed, altered, ornamental finished, repaired adopted or otherwise processed for sale for the purpose of the trade or business of the principal employers and the process is to be carried out either in the home of the out worker or in some other premises, not being premises under the control and management of the principal employer.

No person below the of 14 years shall be employed to act as a workman

- ii) **Fair Wages** means wages whether for time or piecework fixed and notified under the provision of the Minimum Wages Act from time to time.
- iii) **Contractors** shall include every person who undertakes to produce a given result other than a mere supply of goods or articles of manufacture through contract labour or who supplies contract labour for any work and includes a subcontractor.
- iv) **Wages** shall have the same meaning as defined in the Payment of Wages Act.

3.

- i) Normally working hours of an adult employee should not exceed 9 hours a day. The working day shall be so arranged that inclusive of interval for rest, if any, it shall not spread over more than 12 hours on any day.
- ii) When an adult worker is made to work for more than 9 hours on any day or for more than 48 hours in any week he shall be paid over time for the extra hours put in by him at double the ordinary rate of wages.
- iii) a) Every worker shall be given a weekly holiday normally on a Sunday, in accordance with the provisions of Minimum Wages (Central) Rules 1960, as amended from time to time, irrespective of whether such worker is governed by the Minimum Wages Act or not.
 - b) Where the minimum wages prescribed by the Government, under the Minimum Wages Act, are not inclusive of the wages for the weekly day of rest, the worker shall be entitled to rest day wages, at the rate applicable to the next preceding day, provided he has worked under the same contractor for a continuous period of not less than 6 days.
 - c) Where a contractor is permitted by the Engineer-in-Charge to allow a worker to work

on a normal weekly holiday, he shall grant a substituted holiday to him for the whole day, on one of the five days, immediately before or after the normal weekly holiday, and pay wages to such worker for the work performed on the normal weekly holiday at the overtime rate.

4. **DISPLAY OF NOTICE REGARDING WAGES ETC.**

The contractor shall, before he commences his work on contract, display and correctly maintain and continue to display and correctly maintain, in a clear and legible condition in conspicuous places on the work, notices in English and in local Indian languages spoken by the majority of the workers, giving the minimum rates of the wages fixed under Minimum Wages Act, the actual wages being paid, the hours of work for which such wage are earned, wages periods, dates of payments of wages and other relevant information as per Appendix 'III'.

5. **PAYMENT OF WAGES.**

- i) The contractor shall fix wage periods in respect of which wages shall be payable.
- ii) No wage period shall exceed one month.
- iii) The wages of every person employed as contract labour in an establishment or by a contractor, where less than one thousand such persons are employed, shall be paid before the expiry of seventh day and in other cases before the expiry of tenth day after the last day of the wage period in respect of which the wages are payable.
- iv) Where the employment of any worker is terminated by or on behalf of the contractor the wages earned by him shall be paid before the expiry of the second working day from the date on which his employment is terminated.
- v) All payment of wages shall be made on a working day at the work premises and during the working time and on a date notified in advance and in case the work is completed before the expiry of the wage period, final payment shall be made within 48 hours of the last working day.
- vi) Wages due to every worker shall be paid to him direct or to other person authorised by him in this behalf.
- vii) All wages shall be paid in current coin or currency or in both.
- viii) Wages shall be paid without any deductions of any kind except those specified by the Central Government by general or special order in this behalf or permissible under the Payment of Wages Act 1956.
- ix) A notice showing the wages period and the place and time of disbursement of wages shall be displayed at the place of work and a copy sent by the contractor to the Engineer-in-Charge under acknowledgement.
- x) It shall be the duty of the contractor to ensure the disbursement of wages in presence of authorised representative of the Engineer-in-Charge who will be required to be present at the place and time of the disbursement of wages by the contractor to workmen.
- xi) The contractor shall obtain from the junior engineer or any other authorised representative of the Engineer-in-Charge, as the case may be, a certificate under his signature at the end of the entries in the "Register of Wages" or the "Wage-cum-Muster Roll", as the case may be, in the following form: -

"Certified that the amount shown in the column No.....has been paid to the workman concerned in my presence on.....at....."

6. FINES AND DEDUCTIONS WHICH MAY BE MADE FROM WAGES

- (i) The wages of a worker shall be paid to him without any deduction of any kind except the following: -
- (a) Fines
 - (b) Deductions for absence from duty i.e. from the place or the places where by the terms of his employment he is required to work. The amount of deduction shall be in proportion to the period for which he was absent.
 - (c) Deductions for damage to or loss of goods expressly entrusted to the employed person for custody, or for loss of money or any other deductions which he is required to account, where such damage or loss is directly attributable to his neglect or default.
 - (d) Deduction for recovery of advances or for adjustment of overpayment of wages, advances granted shall be entered in a register.
 - (e) Any other deduction, which the Central Government may from time to time, allows.
- (ii) No fines should be imposed on any worker save in respect of such acts and omissions on his part as have been approved of by the Chief Labour Commissioner.

Note:- An approved list of Acts and Omission for which fines can be imposed is enclosed at Appendix-1.

- (iii) No fine shall be imposed on a worker and no deduction for damage or loss shall be made from his wages until the worker has been given an opportunity of showing cause against such fines or deductions.
- (iv) The total amount of fine, which may be imposed, in any one-wage period, on a worker, shall not exceed an amount equal to three paise in a rupee of the total wages, payable to him in respect of that wage period.
- (v) No fine imposed on any worker shall be recovered from him by instalment, or after the expiry of sixty days from the date on which it was imposed.
- (vi) Every fine shall be deemed to have been imposed on the day of the act or omission in respect of which it was imposed.

7. LABOUR RECORDS

- (i) The contractor shall maintain a **Register of Persons employed** on work on contract in Form XIII of the CL (R&A) Central Rules 1971 (Appendix IV)
- (ii) The contractor shall maintain a **Muster Roll** register in respect of all workmen employed by him on the work under Contract in Form XVI of the CL (R&A) Rules 1971 (Appendix V)
- (iii) The contractor shall maintain a **Wage Register** in respect of all workmen employed by him on the work under contract in Form XVII of the CL (R&A) Rules 1971 (Appendix VI)
- (iv) **Register of accident** – The contractor shall maintain a register of accidents in such form as may be convenient at the work place but the same shall include the following particulars:
 - a) Full Particulars of the labourers who met with accident.
 - b) Rate of wages.
 - c) Sex
 - d) Age
 - e) Nature of accident and cause of accident

- f) Time and date of accident
 - g) Date and time when admitted in hospital
 - h) Date of discharge from the hospital
 - i) Period of treatment and result of treatment
 - j) Percentage of loss of earning capacity and disability as assessed by Medical Officer.
 - k) Claim required to be paid under Workmen's Compensation Act.
 - l) Date of payment of compensation
 - m) Amount paid with details of the person to whom the same was paid
 - n) Authority by whom the compensation was assessed
 - o) Remarks.
- v) The contractor shall maintain a **Register of Fines** in the Form XII of the CL (R&A) Rules 1971 (Appendix XI). The contractor shall display in a good condition and in a conspicuous place of work the approved list of acts and omission for which fines can be imposed (Appendix X)
 - vi) The contractor shall maintain a Register of deductions for damage or loss in Form XX of the CL (R&A) Rules 1971 (Appendix XII).
 - vii) The contractor shall maintain a **Register of Advances** in Form XXIII of the CL (R&A) Rules 1971 (Appendix-XIII).
 - viii) The contractor shall maintain a **Register of Overtime** in Form XXIII of the CL (R&A) Rules 1971 (Appendix-XIV).

8. **ATTENDANCE CARD-CUM WAGE SLIP**

- i) The contractor shall issue an **Attendance card cum wage slip** to each workman employed by him in the specimen form at (Appendix-VII).
- ii) The card shall be valid for each wage period.
- iii) The contractor shall mark the attendance of each workman on the card twice each day, once at the commencement of the day and again after the rest interval, before he actually starts work.
- iv) The card shall remain in possession of the worker during the wage period under reference.
- v) The contractor shall complete the wage slip portion on the reverse of the card at least a day prior to the disbursement of wages in respect of the wage period under reference.
- vi) The contractor shall obtain the signature or thumb impression of the worker on the wage slip at the time of disbursement of wages and retain the card with him.

9. **EMPLOYMENT CARD**

The contractor shall issue an **Employment Card** in the Form XIV of CL (R&A) Central Rules 1971 to each worker within three days of the employment of the worker (Appendix-VIII).

10. **SERVICE CERTIFICATE**

On termination of employment for any reason whatsoever the contractor shall issue to the workman whose services have been terminated, a Service Certificate in the Form XV of the CL (R&A) Central Rules 1971 (Appendix-IX).

11. **PRESERVATION OF LABOUR RECORDS**

All records required to be maintained under Regulations Nos. 6 & 7 shall be preserved in original for a period of three years from the date of last entries made in them and shall be made available for inspection by the Engineer-in- Charge or Labour Officer or any other officers authorised by the Ministry of Health and Family Welfare in this behalf.

12. POWER OF LABOUR OFFICER TO MAKE INVESTIGATIONS OR ENQUIRY

The labour officer or any person authorised by the Central Government on their behalf shall have power to make enquiries with a view to ascertaining and enforcing due and proper observance of Fair Wage Clauses and provisions of these Regulations. He shall investigate into any complaint regarding the default made by the contractor or subcontractor in regard to such provision.

13. REPORT OF LABOUR OFFICER

The Labour Officer or other persons authorised as aforesaid shall submit a report of result of his investigation or enquiry to the Engineer in charge concerned indicating the extent, if any, to which the default has been committed with a note that necessary deductions from the contractor's bill be made and the wages and other dues be paid to the labourers concerned. In case an appeal is made by the contractor under Clause 13 of these regulations, actual payment to labourers will be made by the Engineer in charge after superintending engineer has given his decision on such appeal.

- i) Engineer in charge shall arrange payments to the labour concerned within 45 days from the receipt of the report from or the superintending engineer as the case may be the Labour Officer

14. APPEAL AGAINST THE DECISION OF LABOUR OFFICER

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

15. PROHIBITION REGARDING REPRESENTATION THROUGH LAWYER

- i) A workman shall be entitled to be represented in any investigation or enquiry under these regulations by: -
 - a) An officer of a registered trade union of which he is a member.
 - b) An officer of a federation of trade unions to which the trade union referred to in Clause (a) is affiliated.
 - c) Where the employer is not a member of any registered trade union, by an officer of a registered trade union, connected with the industry in which the worker is employed or by any other workman employed in the industry in which the worker is employed.
- ii) An employer shall be entitled to be represented in any investigation or enquiry under these regulations by:-
 - a) An officer of an association of employers of which he is a member.
 - b) An officer of a federation of associations of employers to which association referred to in Clause (a) is affiliated.
 - c) Where the employer is not a member of any association of employers, by an officer of association of employer connected with the industry, in which the employer is engaged or by any other employer, engaged in the industry in which the employer is engaged.
- iii) No party shall be entitled to be represented by a legal practitioner in any investigation inquiry under these regulations.

16. INSPECTION OF BOOKS AND SLIPS

The contractor shall allow inspection of all the prescribed labour records to any of his workers or to his agent at a convenient time and place after due notice is received or to the Labour Officer or any other person, authorised by the Central Government on his behalf.

17. SUBMISSION OF RETURNS

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

18. AMENDMENTS

The Central Government may from time to time add to or amend the regulations and on any question as to the application/interpretation or effect of those regulations the decision of the EIC concerned shall be final.

Appendix 'I'**REGISTER OF MATERNITY BENEFITS (Clause 19F)**

Name and address of the contractor _____

Name and Location of the work _____

Name of the Employee	Father's/ husband's name	Nature of Employment	Period of actual confinement	Date on which notice of confinement given
1	2	3	4	5

Date on which maternity leave commenced and ended				
Date of Delivery/ Miscarriage	In case of delivery		In case of miscarriage	
	Commenced	Ended	Commenced	Ended
6	7	8	9	10

Leave pay paid to the employee				Remarks
In case of delivery		In case of miscarriage		
Rate of leave pay	Amount paid	Rate of leave pay	Amount paid	
11	12	13	14	15

Appendix 'II'**SPECIMEN FORM OF THE REGISTER, REGARDING MATERNITY BENEFIT ADMISSIBLE TO THE CONTRACTOR'S LABOUR IN****MINISTRY OF HEALTH AND FAMILY WELFARE.**

Name and address of the contractor _____

Name and location of the work _____

1. Name of the woman and her husband's name.
2. Designation
3. Date of appointment.
4. Date with months and years in which she is employed.
5. Date of discharge / dismissal, if any.
6. Date of production of certificates in respect of pregnancy.
7. Date on which the woman informs about the expected delivery.
8. Date of delivery / miscarriage / death.
9. Date of production of certificates in respect of delivery / miscarriage.
10. Date with the amount of maternity/ death benefit paid in advance of expected delivery.
11. Date with amount of subsequent payment of maternity benefit.
12. Name of the person nominated by the woman to receive the payment of the maternity benefit after her death.
13. If the woman dies, the date of death, the name of the person to whom maternity benefit amount was paid, the month thereof and the date of payment.
14. Signature of the contractor authenticating entries in the register.
15. Remarks column for the use of inspecting officer.

Appendix 'III'**LABOUR BOARD**

Name of work: _____

Name of Contractor: _____

Address of Contractor: _____

Name and address of Government divn. _____

Name of CLIENT Labour Officer: _____

Address of CLIENT Labour Officer: _____

Name of Labour Enforcement Officer: _____

Address of Labour Enforcement Officer: _____

SI.No	Category	Minimum wage Fixed	Actual wage paid	Number Present	Remarks

Weekly holiday _____

Wage period _____

Date of payment of Wages _____

Working hours _____

Rest interval _____

Appendix 'IV'

Form-XIII (See Rule 75)

Register of Workmen Employed by Contractor

Name and address of contractor _____

Name and address of establishment under which contract is carried on _____

Nature and location of Work _____

Name and address of Principal Employer _____

Sl. No.	Name and surname of Workman	Age and Sex	Father's/husband Name	Nature of employment / designation.	Permanent home address of the workman (Village and Tehsil, Taluka and District)	Local Address	Date of commencement of employment	Signature or thumb impression of the workman	Date of Termination of employment.	Reasons For terminations.	Remarks
1	2	3	4	5	6	7	8	9	10	11	12

Appendix 'V'

Form-XVI (See Rule 78(2)(a))

Muster Roll

Name and address of the contractor _____

Name and address of establishment under which contract is carried on _____

Nature and location of work _____

Name and address of Principal Employer _____

For the month of fortnight _____

Sl. No.	Name of workman	Sex	Father's/ Husband's Name	Dates					Remarks
				1	2	3	4	5	
1	2	3	4	5					6
				1	2	3	4	5	

Appendix 'VI'**Form –XVII (See Rule 78(2)(a))****Register of Wages**

Name and address of the contractor _____

Name and address of establishment under which contract is carried on _____

Nature and location of work _____

Name and address of Principal Employer _____

Wages period _____ Monthly/fortnightly

Sl.No.	Name of workman	Serial No.in the register of workman	Designation of Nature of work done	No. of days worked	Units of work done	Daily rate of wages/piece rate	Basic Wages
1	2	3	4	5	6	7	8

Dearness allowances	Overtime	Other cash payments (Indicate nature)	Total	Deductions (indicate nature)	Net amount paid	Signature or thumb impression	Initial of his representativ
9	10	11	12	13	14	15	16

Wage Card No. _____

Wage Card

Appendix 'VII' (Observe)

Name and address of the contractor Date of issue _____

Name and location of work Designation _____

Name of Workman _____

Month/fortnight-----

Rate of Wages _____

		DATE																															
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Initial	Morning																																
	Evening																																

Rate _____ Amount_

Received from_ the sum of Rs. _____ on account of my wages.

Signature

The wage card is valid for one month from the date of issue

Appendix 'VII' (Reverse)

Form-XIX(See rule 78(2)(b))

Wages Slip

Name and address of the contractor _____

Name and Father's/Husband's name of workman _____

Nature and location of work _____

For the Week/Fortnight/Month ending _____

1. No. of days worked _____

2. No. of units worked in case of piece rate workers _____

3. Rate of daily wages/piece rate _____

4. Amount of overtime wages _____

5. Gross wages payable _____

6. Deduction, if any _____

7. Net amount of wages paid _____

Initials of the Contractors or his representative

Appendix 'VIII'

Form-XIV (See rule 76)

Employment Card

Name and address of the contractor_____

Name and address of establishment under which contract is carried on_____

Nature of work and location of work_____

Name and address of Principal Employer_____

1. Name of Workman_____
2. SI No. in the register of workman employed_____
3. Nature of employment/designation_____
4. Wage rate (with particulars of unit in case of piece work)_____
5. Wages period_____
6. Tenure of employment_____
7. Remarks_____

Signature of contractor

Appendix 'IX'

Form-XV (See Rule 77)

Service Certificate

Name and address of the contractor _____

Nature and location of work _____

Name and Address of workman _____

Age or date of birth _____

Identification marks _____

Father's/Husband's name _____

Name and address of establishment in under which contract is carried on _____

Name and address of Principal Employer _____

Sl.No.	Total period for which employed		Nature of work done	Rate of Wages (with particulars of unit in case of piece work)	Remarks
	From	To			
1	2	3	4	5	6

Signature

Appendix 'X'**LIST OF ACTS AND OMISSIONS FOR WHICH FINES CAN BE IMPOSED**

In accordance with rule 7 (v) of the CPWD Contractor's Labour Regulations to be displayed prominently at the site of work both in English and local Language.

1. Wilful insubordination or disobedience, whether along or in combination with other.
2. Theft fraud or dishonestly in connection with the contractors beside a business or property of Department.
3. Taking or giving bribes or any illegal gratifications.
4. Habitual late attendance.
5. Drunkenness fighting, riotous or disorderly or indifferent behaviour.
6. Habitual negligence.
7. Smoking near or around the area where combustible or other materials are locked.
8. Habitual indiscipline.
9. Causing damage to work in the progress or to property of the Department or of the contractor.
10. Sleeping on duty.
11. Malingering or slowing down work.
12. Giving of false information regarding name, age, father's name etc.
13. Habitual loss of wage cards supplied by the employers.
14. Unauthorized use of employer's property of manufacturing or making of unauthorized particles at the work place.
15. Bad workmanship in construction and maintenance by skilled workers which is not approved by the Department and for which the contractors are compelled to undertake rectification.
16. Making false complaints and/or misleading statements.
17. Engaging on trade within the premises of the establishments.
18. Any unauthorized divulgence of business affairs of the employees.
19. Collection or canvassing for the collection of any money within the premises of an establishment unless authorized by the employer.
20. Holding meeting inside the premises without previous sanction of the employers.
21. Threatening or intimidating any workman or employer during the working hours within the premises.

Appendix 'XI'

Form-XII (See Rule 78(2)(d))

Register of Fines

Name and address of the contractor _____

Name and address of establishment in under which contract is carried on _____

Nature and location of work _____

Name and address of Principal Employer _____

Sl.No.	Name of workman	Father's/Husband's name	Designation/nature of employment	Act/Omission For which fine imposed	Date of Offence
1	2	3	4	5	6

Whether workman Showed cause against fine	Name of person in whose presence employees explanation was heard	Wage period and wages payable	Amount of fine imposed	Date on which fine realized	Remarks.
7	8	9	10	11	12

Appendix 'XII'

Form-XX(See Rule 78(2)(d))

Register of Deduction for Damage or Loss

Name and address of the contractor _____

Name and address of establishment in under which contract is carried on _____

Nature and location of work _____

Name and address of Principal Employer _____

Sl.No.	Name of workman	Father's/Husband's name	Designation/nature of employment	Particulars of damage or loss	Date of damage or loss
1	2	3	4	5	6

Whether workman showed cause against fine	Name of person in whose presence employees explanation was heard	Amount of deduction imposed	No. of instalments	Date of recovery		Remarks
				First instalment	Last instalment	
7	8	9	10	11	12	13

Appendix 'XIII'**Register of Advances**

Name and address of the contractor _____

Name and address of establishment in under which contract is carried on _____

Nature and location of work _____

Name and address of Principal Employer _____

Sl. No.	Name of workman	Father's/Husband's name	Designation nature of employment	Wage period and wages payable	Date and Amount of Advance given	Purpose(s) for which Advance made	Number of Instalments by which advance to be repaid	Date and amount of each instalments repaid	Date on which last Instalments was repaid	Remarks
1	2	3	4	5	6	7	8	9	10	11

Appendix 'XIV'

Form-XXIII (See Rule 78(2)(e))

Register of Overtime

Name and address of the contractor _____

Name and address of establishment in under which contract is carried on

Nature and location of work _____

Name and address of Principal Employer _____

Sl.No.	Name of workman	Father's/husband's name	Sex	Designation /nature of employment	Date on which Overtime worked	Total overtime worked or production in case of piece rated	Normal rate of wages	Overtime rate of wages	Overtime earnings	Rate on which overtime wages paid	Remarks
1	2	3	4	5	6	7	8	9	10	11	12

Section -6
Formats

GUARANTEE TO BE EXECUTED BY THE CONTRACTOR FOR REMOVAL OF DEFECTS AFTER COMPLETION IN RESPECT OF WATER SUPPLY AND SANITARY INSTALLATIONS

The agreement made this..... Day of Two thousand and between S/O..... (Hereinafter called the GUARANTOR of the one part) and the (herein after called the Client of the other part). WHEREAS THIS agreement is supplementary to the contract. (Herein after called the Contract) dated.....and made between the GUARANTOR OF THE ONE PART AND the Client of the other part, whereby the contractor interalia, undertook to render the work in the said contract recited structurally stable workmanship and use of sound materials.

AND WHEREAS THE GUARANTOR agreed to give a guarantee to the effect that the said work will remain structurally stable and guarantee against faulty workmanship, finishing, manufacturing defects of materials and leakages etc.

NOW THE GUARANTOR hereby guarantee that work executed by him will remain structurally stable, after the expiry of maintenance period prescribed in the contract for the minimum life of ten years, to be reckoned from the date after the expiry of maintenance period prescribed in the contract.

The decision of the Engineer- in- charge with regard to nature and cause of defects shall be final.

During the period of guarantee the guarantor shall make good all defects to the satisfaction of the Engineer- in- charge calling upon him to rectify the defects, failing which the work shall be got done by the Client by some other contractor at the guarantor’s cost and risk. The decision of the Engineer –in- charge as to the cost payable by the Guarantor shall be final and binding.

That if the guarantor fails to make good all the defects, commits breach there-under then the guarantor will indemnify the Principal and his successor against all loss, damage cost expense or otherwise which may be incurred by him by reason of any default on the part of THE GUARANTOR in performance and observance of this supplementary agreement. As to the amount of loss and/or damage and/or cost incurred by the Client the decision of the Engineer in charge will be final and binding on the parties.

IN WITNESS WHEREOF those presents have been executed by the obligator. And by for and on behalf of the Client on the day, month and year first above written. Signed sealed and delivery by OBLIGATOR in the presence of:

- 1
- .
- 2
- .

SIGNED FOR AND ON BEHALF OF ----- BY..... in the present of:

- 1
- .
- 2
- .

**GUARANTEE BOND TO BE EXECUTED BY THE CONTRACTOR FOR WATERPROOFING
TREATMENT FOR BASEMENT/TERRACE/TOILETS.**

The agreement made this _____ day of __two thousand and _____ between _____ S/o _____ (hereinafter called the GUARANTOR of the one part) and the ----- (hereinafter called the Client of the other part).

WHEREAS this agreement is supplementary to a contract. (Herein after called the Contract) dated _____ and made between the GUARANTOR OF THE ONE PART AND the Client of the other part, whereby the contractor interalia, undertook to render the structures in the said contract of the work in the said contract recited completely water and leak proof.

THE GUARANTOR hereby guarantee that the water proofing treatment given by him will render the structures completely leak proof and the minimum life of such water proofing treatment shall be ten years to be reckoned from the date after the expiry of maintenance period prescribed in the contract. Provided that the guarantor will not be responsible for leakage caused by earthquake or structural defects.

The decision of the Engineer in charge with regard to cause of leakage shall be final. During the period of guarantee the guarantor shall make good all defects and in case of any defects being found render the structure water proof to the satisfaction of the Engineer in charge at his cost and shall commence the work for such rectification within seven days from the date of issue of notice from the Engineer in charge calling upon him to rectify the defects, failing which the work shall be got done by the Client through some other contractor at the guarantor's cost and risk. The decision of the Engineer in charge as to the cost payable by the Guarantor shall be final and binding.

That if the guarantor fails to execute the water proofing, or commits breach there-under then the guarantor will indemnify the Principal and his successor against all loss, damage, cost of expenses or otherwise which may be incurred by him by reason of any of any default on the part of the GUARANTOR in performance and observance of this supplementary agreement. As to the amount of loss and/or cost incurred by the Client on the decision of the Engineer in charge will be final and binding on the parties.

IN WITNESS WHEREOF those presents have been executed by the obligator _____ and by _____ by for and on behalf of ----- on the day, month and year first above written.

Signed sealed and delivered by OBLIGATOR in presence of:

1. _____ 2. _____

SIGNED FOR AND ON BEHALFOF ----- BY _____

In presence of:

1. _____ 2. _____

SECTION 7**PROFORMA OF SCHEDULES****(Operative Schedules)**

SCHEDULE 'A'		
	Schedule of quantities (BOQ)	Attached as Volume –IV, Bill of Quantities.
SCHEDULE 'B'		
	Schedule of materials to be issued to the contractor	NIL – No material to be issued to the Contractor
SCHEDULE 'C'		
	Tools and plants to be hired to the contractor	NIL - No tools and plants to be hired to the Contractor
SCHEDULE 'D'		
	Extra schedule for specific requirements/document for the work, if any.	NIL
SCHEDULE 'E'		
	Reference to General Conditions of Contract	
	Name of work :	SETTING UP OF RESIDENTIAL COMPLEX AT AIIMS RISHIKESH, (SH: Balance Building Works-Nurses Hostel)
	Estimated cost of work:	As per NIT
	Earnest money:	As per NIT
	Performance Guarantee:	5% of Accepted Tendered Value.
	Security Deposit:	5% of Accepted Tendered Value.
SCHEDULE 'F'		
	GENERAL RULES & DIRECTIONS	
	Officer inviting bid	Executive Director (ID), HLL Lifecare Ltd,B14A, Sector 62, NOIDA-201307, For and on behalf of Ministry of Health & Family Welfare, Govt. of India, New Delhi
	DEFINITIONS	
1	Authority executing the agreement on behalf of the President of India	Executive Director (ID), HLL Lifecare Ltd,B14A, Sector 62, NOIDA-201307, For and on behalf of Ministry of Health & Family Welfare, Govt. of India, New Delhi
2(i)	Accepting Authority	Executive Director (ID), HLL Lifecare Ltd,B14A, Sector 62, NOIDA-201307, For and on behalf of Ministry of Health & Family Welfare, Govt. of India, New Delhi
2(vi)	Engineer-in-Charge	Authorized representative nominated by MoHFW / HLL
2(ix)	Percentage on cost of materials and labour to cover all Overheads and profits.	15%
2(xi)	Standard Schedule of Rates	Latest CPWD Schedule of Rates, with up to date correction slips
2(xii)	Department	Ministry of Health & Family Welfare, Government of India, Nirman Bhawan, New Delhi or their authorised representative

CLAUSES OF CONTRACT			
Clause 1	(i) Time allowed for submission of Performance Guarantee from the date of issue of letter of acceptance		30 days
	(ii) Maximum allowable extension beyond the period provided in (i) above		NIL
Clause 2	Authority for fixing compensation under Clause 2.	Executive Director (ID), HLL Lifecare Ltd, B14A, Sector 62, NOIDA-201307, For and on behalf of Ministry of Health & Family Welfare, Govt. of India, New Delhi	
	Authority for deciding incentive under Clause 2A.	Executive Director (ID), HLL Lifecare Ltd, B14A, Sector 62, NOIDA-201307, For and on behalf of Ministry of Health & Family Welfare, Govt. of India, New Delhi	
	Whether Clause 2A shall be applicable	YES	
Clause 5	Time Allowed for execution of Works	4 (Four) Months	
	Number of days from the date of issue of letter of acceptance for reckoning date of Start	15 Days	
	Authority to decide shifting of date of start in case of delay in handing over of site.	Executive Director (ID), HLL Lifecare Ltd, B14A, Sector 62, NOIDA-201307, For and on behalf of Ministry of Health & Family Welfare, Govt. of India, New Delhi	
Mile stone(s) will be as per table given below:-			
Mile Stone No	Milestone		Amount to be withheld in case of non-achievement of milestone
	Financial Progress	Time Allowed (From date of start)	
1.	1/8 th (Of the whole work)	1/4 th (Of the whole work)	In the event of not achieving the necessary progress as assessed from the running payments, 1% of the tendered value of work will be withheld for failure of each milestone
2.	3/8 th (Of the whole work)	1/2 th (Of the whole work)	
3.	3/4 th (Of the whole work)	3/4 th (Of the whole work)	
4.	Full	Full	
Note:			
	(i) If the Milestone(s) are not completed as per Time Schedule specified above, then the amount as given in the table above will be withheld against the respective Milestone(s) from the payment due to the Contractor. However if the subsequent milestone (inclusive of the earlier milestones) are achieved within the Time Allowed/Specified herein, then the amount withheld for non-completion of previous milestone(s) shall be released in the payments thereafter.		
	(ii) The total amount with held under the above milestones shall be adjusted against any levy of compensation decided by the competent authority under Clause 2 above.		
Clause 5.4	Authority for deciding Extension of Time and rescheduling of Milestones	Executive Director (ID), HLL Lifecare Ltd, B14A, Sector 62, NOIDA-201307, For and on behalf of Ministry of Health & Family Welfare, Govt. of India, New Delhi	
Clause 6, 6A	Clause applicable – (6 or 6A)	6A	
Clause 7	Gross work to be done together with net payment /adjustment of advances for material collected, if any, since the last such payment for	Rs. Fifty Lakhs Only	

						being eligible to interim payment.	
Clause 8B						Completion Plans to be Submitted by the Contractor as per specifications	Latest General CPWD Specifications for Electrical works (Part – I Internal) and (Part – II External)
Clause 10A						List of testing equipment to be provided by the contractor at site laboratory.	As per Annexure-I and II
Clause 10B						Whether Clause 10 B (ii) shall be applicable	Yes
						Whether Clause 10 B (iii) shall be applicable	NO
Clause 10C						Component of labour expressed as per-cent of value of work	25%
Clause 10CA							Not Applicable
Clause 10CC						Clause 10 CC to be applicable in contracts with stipulated period of completion exceeding the period shown in next column	Not Applicable
Clause 11						Specifications to be followed for execution of work	Latest CPWD Specifications for Civil, Electrical and all other works with up to date correction slips for all sub heads of work as applicable, and, Technical Specifications included in the tender documents, wherever applicable
Clause 12							
	12.2 & 12.3					Deviation Limit beyond which clauses 12.2 & 12.3 shall apply for building work.	30 % of Items
	12.5					Deviation Limit beyond which clauses 12.5 shall apply for foundation work.	100 % of Items
Clause 16						Competent Authority for deciding reduced rates	Executive Director (ID), HLL Lifecare Ltd,B14A, Sector 62, NOIDA-201307, For and on behalf of Ministry of Health & Family Welfare, Govt. of India, New Delhi
Clause 18						List of mandatory machinery, tools & plants to be deployed at site.	<ol style="list-style-type: none"> 1. Scaffolding 2. D.G.Set. 3. As required as per direction of the Engineer-in-charge
Clause 25						Reviewing Authority	ED(ID) ,HLL Lifecare Limited
						Appealing Authority	Director (F) ,HLL Lifecare Limited
Clause 36 (i)						Minimum Requirement of Technical Representative(s) and monthly recovery Rate	
S. No.	Designation (Principal Technical/ Technical representative)	Discipline	Minimum Qualification of Technical Representative	Minimum Experience	Minimum Nos.	Rate at which recovery shall be made from the contractor in the event of not fulfilling provision of clause 36 (i)	
						Rate per month	

1.	Project Manager	Civil	Degree	10	1	Rs 1,00,000/-
2.	Project Engineer & Quality Control	Electrical/ Mechanical	Degree/Diploma	5/8	1	Rs 75,000/-
3.	Project Engineer & Billing Engineer	Civil/PHE	Degree/Diploma	5/8	1	Rs 75,000/-
4.	Engineer/ Supervisors	Civil/Elect	Degree/Diploma	3/5	1	Rs 50,000/-

Note: The staffs at Sr. No. 1 & 2 above are required to be in position at site immediately on commencement of work. The balance along with other staff for specialised works to be in position at site as per requirements at project site or within 30 days of directions of Engineer-in-Charge, whichever is earlier.

Clause 39	Authority having option of terminating the Contract in event of death of Contractor	Executive Director (ID), HLL Lifecare Ltd, B14A, Sector 62, NOIDA-201307, For and on behalf of Ministry of Health & Family Welfare, Govt. of India, New Delhi
Clause 42	I. Schedule/statement for determining theoretical quantity of cement & bitumen	On the basis of Delhi schedule of Rates 2013, printed by C.P.W.D.
	II. Variations permissible on theoretical quantities	
	(a) Cement	
	(i) For works with estimated cost put to tender not more than Rs. 5 lakh.	3% plus/minus
	(ii) For work with estimated cost put to tender more than Rs. 5 lakh.	2% plus/minus.
	(b) Bitumen all works	2.5% on plus only & nil on minus side.
	(c) Steel reinforcement and structural steel sections for each diameter, section and category	2% plus/minus.
	(d) All other materials	Nil

RECOVERY RATES FOR QUANTITIES BEYOND PERMISSIBLE VARIATION

		Rates in figure and words at which recovery shall be made from the contractor	
S. No.	Description of item	Excess beyond permissible variation	Less use beyond permissible variation
1	Cement	Nil	1.10* (base price + CI)
2	Steel reinforcement	Nil	1.10* (base price + CI)

<u>Annexure – I</u>	
A-List of Equipment for Field Testing Laboratory (Minimum)	
S.No	
1	Balances
(i)	7 kg. to 10 kg. capacity, semi-self-indicating type – accuracy 10 gm.
(ii)	500 gm. Capacity, semi-self-indicating type – accuracy 1 gm.
(iii)	Pan balance- 5 kg. Capacity – accuracy 10 gms.
2	Ovens-electrically operated thermostatically controlled upto 1100C – sensitivity 10 C.
3	Sieves: as per IS 460-1962.
(i)	I.S. sieves – 450mm internal dia, of sizes 100mm, 80mm, 63mm, 50mm, 40mm, 25mm, 20mm, 12.5mm, 10mm, 6.3mm, 4.75mm, complete with lid and pan
(ii)	I.S. sieves – 200mm internal dia (brass frame) consisting of 2.36mm, 1.18mm, 600 microns, 425 microns, 300 microns, 212 microns, 150 microns, 90 microns, 75 microns, with lid and pan.
4	Sieve shaker capable of 200 mm and 300 mm dia sieves, manually operated with timing switch assembly.
5	Equipment for slump test – Slump cone, steel plate, tamping rod, steel scale, scoop.
6	6. Dial gauges, 25 mm travel – 0.01 mm/ division least count – 2 nos.
7	7. 100 tonnes compression testing machine, electrical-cum manually operated.
8	8. Graduated measuring cylinders 200 ml capacity – 3 Nos.
9	9. Enamel trays (for efflorescence test for bricks).
(i)	300 mm x 250 mm x 40 mm – 2 nos.
(ii)	Circular plates of 250 mm dia – 2 nos.
10	Cube Mould – as per requirement
	Note: The above list is indicative and is bare minimum. However Contractors are advised to provide Laboratory Testing Equipment in required number so that Quality of work does not suffer due to shortage of Equipment.

Annexure – II	
B-Field Testing Instruments (Minimum)	
S.No.	
1	Steel tapes – 3m
2	Vernier calipers
3	Micrometer screw gauge-25 mm
4	A good quality plumb bob
5	Spirit level, minimum 30 cms long with 3 bubbles for horizontal vertical
6	Wire gauge (circular type) disc
7	Foot rule
8	Long nylon thread
9	Rebound hammer for testing concrete
10	Dynamic penetrometer
11	Magnifying glass
12	Screw driver 30 cms long
13	Ball pin hammer, 100 gms
14	Plastic bags for taking samples
15	Moisture meter for timber
16	Earth resistance tests (for Electrical Divisions)
17	Megger (for Electrical Divisions)
<p>Note: The above list is indicative and is bare minimum. However Contractors are advised to provide Field Testing Equipment in required number so that Quality of work does not suffer due to shortage of Equipment.</p>	

**MINISTRY OF HEALTH & FAMILY WELFARE
GOVERNMENT OF INDIA, NEW DELHI**

Tender No. MoHFW /AIIMS-RISHIKESH/ BBW-NH/HLL/ID/2014

**Request for Proposal (RFP)
*For***

**SETTING UP OF RESIDENTIAL COMPLEX
AT AIIMS RISHIKESH
(SH: Balance Building Works-Nurses Hostel)**

VOLUME – III

**Special Conditions of Contract
And
Additional Conditions of Contract and Specifications**



B-14A, Sector – 62,
NOIDA (UP) -201307

Phone no: 0120-4071500, Fax no: 0120-4071513

(March, 2014)

**MINISTRY OF HEALTH & FAMILY WELFARE
GOVERNMENT OF INDIA, NEW DELHI**

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**MINISTRY OF HEALTH & FAMILY WELFARE
GOVERNMENT OF INDIA, NEW DELHI**

SECTION 1

SPECIAL CONDITIONS OF CONTRACT (S C C)

1. Scope of Contract

The scope of proposed work consists of Construction of Balance Building Works for Setting up of Residential Complex at AIIMS, Rishikesh (UK).

Present Stage: - The work for setting up of residential complex at AIIMS Rishikesh was awarded to M/s CRS Infra Projects Ltd, New Delhi, which has since been rescinded. The contractor had executed major parts of Building Works.

Present Scope of work:- The scope of work includes the balance building works of the residential complex of AIIMS at Rishikesh, Uttarakhand the balance buildings works of Nurses Hostel as per BOQ and additional works, if any, as per the directions of the Engineer-in-charge.

2. Drawings

(a) Tender Drawings

The tender drawings 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 free of cost three copies of all drawings 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/Engineer-in-charge/Consultant shall have, at all reasonable times, access to the same.

The drawings shall be provided to the Contractor as per the schedule (prepared at the starting of the works and necessarily updated or revised time to time) mutually agreed by the Engineer-in-charge and the Contractor. Last 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 Engineer-in-charge and replaced by revised drawings.

The Contractor shall maintain complete up to date Register of drawings at site. All drawings shall be properly numbered and indexed for ready reference. Superseded drawings should be properly identified.

The contractor shall ensure that only the valid up to date drawings are used for setting

out, construction and preparation of as built drawings etc.

(c) Bar Bending Schedule

Contractor shall prepare bar bending schedules and shall get them approved from the Engineer-in-charge or his authorized representative.

(d) Working drawings/ Shop drawings/ Design:

The drawings supplied by the Engineer-in-charge have been listed in the tender documents. These drawings are indicative for the purpose of detailing and requirement of the contracts. The contractor shall take into consideration space allocated for equipments before ordering them to ensure that the equipment would fit in the space provided with necessary clearances required as per the relevant standard / manufacture's recommendations. In case of any difficulty it should be brought to the notice of the Engineer - in- Charge.

Structural and architectural drawings will be provided by the Engineer-in-charge / Consultant. However, to ensure the uninterrupted progress of work and timely completion, the contractor will do further detailing as per site requirement at his own.

Detailing for shop drawings of all services will have to be done by the contractor based on the schematics and other details provided by the Engineer-in-charge /Consultant or local authorities. The work will be executed by the contractor based on the approved drawings from the concerned authority and accordingly contractor will be responsible for obtaining all required final NOC / clearance from concerned authorities. These drawings and details shall also contain details of construction, size, arrangement, operating clearances, performance characteristics and capacity of all items of equipments and also details of all related items of work by other discipline.

The contractor shall submit to the Engineer-in-charge for approval details of all proposed equipments, accessories, equipment characteristics and capacity details of all equipment, accessories and devices etc. as per the specifications and obtain approval of the Engineer-in-charge.

In case there is delay in any drawings and design viz. shop drawings, or specialised works drawings etc. to be supplied by the contractor, the Engineer - in- Charge may ask the Contractor to make necessary changes as required. In case of failure on the part of the contractor to carry out the directions of the Engineer - in- Charge action may be taken to get the needful done at the risk and cost of the Contractor. All drawings shall be signed by Contractor or their authorised representative with name, seal and date before submission to Engineer-in-charge.

3. Disruption of Progress

- (a). The Contractor shall give 4 weeks written notice to the Engineer-in-charge whenever planning or progress of the Works is likely to be delayed or disrupted due to non-issue of any drawing or order by the Engineer-in-charge. The notice shall give details of the drawing or order required explaining why and by when it is required and if any delay or disruption is likely to be suffered on that account.
- (b). If by reason of any failure or inability of the Engineer-in-charge /Consultant to issue drawings/ order/ clarifications within 4 weeks of such notice the Contractor and the contractor suffers delay, then the Engineer-in-charge, shall record the facts for any extension of time under respective clause of the agreement. Notwithstanding anything stated above, the Contractor shall not be eligible for any financial compensation arising out of the above.

- (c). No compensation whatsoever shall be payable to the contractor for any damage by rains, lightning, wind, storm, floods, tornadoes, earthquakes, or any other natural calamities during execution of work and no claim on this account will be entertained such damages.

4. 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 Engineer-in-charge/Consultant. The Engineer-in-charge /Consultant 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 "Engineer-in-charge / Consultant 's 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 thereof.
- d. The removal and/or re-execution of any works executed by the contractor.
- e. The removal of any persons employed by the contractor on the site.
- f. The opening up for inspection of any work covered up.
- g. The amending and making good of any defects noticed during or after execution of the work.

The contractor shall forthwith comply with and duly execute any work in compliance to above instructions provided always that verbal instructions, directions and explanations given to the contractor or his representative by the Engineer - in- Charge / Consultant, shall, if involving a variation, be confirmed in writing by the Contractor within seven days, and if not dissented in writing within a further seven days by the Engineer - in- Charge / Consultant, these shall be deemed to be Engineer - in- Charge / Consultant's instructions within the scope of the contract

5. 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 Engineer - in- Charge /Consultant for clarifications who shall decide the matter.

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 decided as per the provision of the contract and issued in writing by the Engineer-in-charge / Consultant .

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/ direction of the Consultant / Engineer-in-charge 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 the Engineer - in- Charge / Consultant. Wherever different pattern/ Design/ Quality of materials with same specification/ make as specified in the contract, is available in the market, Consultant/ Engineer-in-Charge will approve the pattern/ Design/ Quality of the material/ item which shall be final and binding on the contractor. The contractor shall supply samples of all the materials / fittings / fixtures proposed to be used in the work and obtain approval of the Engineer - in- Charge / Consultant. These samples shall be retained at site till completion of the work. If subsequently it is found that approved material upon testing does not meet the requirement as specified in the contract the contractor shall get approval of alternate material.

(b). Adequacy, stability and safety:

The Contractor shall be fully responsible for the adequacy, stability and safety of all site operations and methods of construction, the contractor shall ensure that all safety norms are followed as per contractual and other statutory requirements.

(c). Temporary works and arrangements:

The Contractor shall furnish to the Engineer-in-charge /Consultant full particulars i.e. site location and area required including drawings, etc. of all temporary works necessary for the execution of the works and shall give adequate time to the Engineer - in- Charge for his approval. The Contractor shall be solely responsible for the stability and structural safety of all temporary works including obtaining statutory approvals and payment of statutory fees, if any. Should it be necessary to shift the temporary works to some other place during the execution of the works, the Contractor shall do so, at his own cost.

(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 Engineer- in-charge. However, no tress shall be removed without the prior permission of the Engineer-in-charge. 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 is 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 Engineer-in-charge.

Storage of materials shall be in an organized manner and in proper compartments as directed by the Engineer - in- Charge. Storage on suspended floors shall not be permitted unless specifically approved in writing by the Engineer-in-charge /Consultant for specific materials in specific locations and in approved manner. The Engineer-in-charge / Consultant 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 Engineer-in-charge /Consultant. Storage of materials / equipment elsewhere shall not be 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 fulfilment of his obligations under this sub-clause shall be deemed to have been included in the financial bid and subsequent contract.

6. 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 to avoid any accident or danger and provide safety measures, lights, guards, fencing and barricades where ever necessary or required by the Engineer-in-charge /Consultant, 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 etc. at his own cost.

7. Care of Works

From the commencement to the certified completion of the whole of works, the contractor shall be responsible for the care, safety and maintenance of the works executed under the contract thereof and of all temporary works. In case of 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 in conformity to every respect with the requirements of the contract. 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 33 hereof. In case of failure on the part of the contractor the damage/ loss/ injury shall be made good by the client at the risk and cost of the contractor.

8. Force Majeure:

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.

9. 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 requirements. The Contractor shall provide all necessary superintendence during the execution of the Works as per contractual provisions.

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

The Contractor shall ensure his presence at site all times during working hours throughout the course of the Contract or depute a Competent representative who shall be empowered to receive instructions from the Engineer - in- Charge in respect of all matters likely to arise in connection with the execution & coordination of the works at the site Contractor's Representative shall have the power to take joint measurement and sign the measurement books / bills. Any direction, explanations, instructions or notices given by the Consultant/ Engineer-in-charge to such representative shall be held to be given to the Contractor. In case of absence of said Representative other alternative representative should also be mentioned having same powers.

The contractor should submit curriculum vitae (CV) of the following key personnel, as required, proposed to be deployed at site for supervision and execution of work.

- Director/Project Coordinator
- Project Managers
- Construction Engineers
- Project Engineers
- Billing Engineers
- Quality Control Engineers
- Planning Engineers

The contractor under normal circumstances would not be allowed to replace the key personnel during the execution of the contract. However, for any reasons, due to unavoidable circumstances if it becomes necessary in the interest of the project to replace any one / all the above key personnel the contractor must submit the CV of the new personnel (having qualification and experience as per requirement of the contract) to Engineer-in-Charge/ Consultant for their approval.

A list of all technical and key personal staffs must be submitted to the Engineer-in-Charge / Consultant 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 Consultant and/or Engineer-in-charge. Any staff of contractor found incapable/unsuitable to execute the assigned work shall be replaced by the Contractor if desired by the Engineer-in-Charge /Consultant.

(c). Contractor's Employees

The Contractor shall employ competent Engineering staff / technical assistants/ technicians who are qualified, skilled and experienced in their respective trades, to ensure proper supervision, quality & output of the work they are required to supervise. 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/his representative.

(d). Removal of Contractor's Employees

The Contractor shall on the direction of the Consultant/Engineer-in-Charge immediately remove from the work any person employed thereon by him who may, in the opinion of the Consultant/ Engineer-in-Charge has misconduct himself and such person shall not be again employed on the works without the permission of the Engineer-in-charge/ Consultant.

(e). Unauthorized Persons

No unauthorized persons shall be allowed on the site. The contractor shall provide complete security arrangement for the campus during construction to avoid trespassing. The Contractor shall ensure all such persons are kept out and shall take steps to prevent trespassing. However the contractor will make sure to provide free access at any time for Engineer-in-charge/Client/Consultant to the site and other working places.

10. Compliance with Statutes, Regulations, Etc.

The contractor shall conform to the provisions of all statutes, ordinance, laws, acts 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 / Engineer-in-charge/ Consultant 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 such regulations, give to the Engineer- in-charge/Consultant 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 Engineer-in-charge/ Consultant

The contractor shall bring to the attention of the Engineer-in-charge/Consultant any specific requirement of the local authorities or any notice required for execution by virtue of such acts, regulations or bye-laws of such authority, or public office. All fees that may be chargeable in respect of these works shall be reimbursed by the client/consultant on production of authorised receipts.

11. 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 Engineer-in-charge/Consultant 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 Engineer-in-charge/ Consultant and / or Client or his authorised representative shall at his own cost, rectify such error to the satisfaction of the Engineer-in-charge. The checking of any setting out or of any line or level by the Consultant 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.

12. Quality of Materials, Workmanship and Test

(a). All the materials used in the work shall be subjected to the mandatory tests as prescribed in the specifications detailed in Schedule F of the General Condition of Contract and other specifications referred to in the contract and workmanship shall be the best of the

respective kinds described in the Contract and in accordance with the Engineer-in-charge / Consultant's instructions and shall be subjected from time to time to such tests as the Engineer-in-charge / Consultant may direct at the place of manufacture or fabrication or on the Site or at an approved testing laboratory. The source of supply and / or manufacturing within/ outside India may be inspected by the Engineer-in-charge/ Consultant/ 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 Engineer-in-charge /Consultant 's representative furnish him with documentation to prove that the materials & goods comply with the requirements of contract and for requirement stated above. The Engineer-in-charge /Consultant 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 required for examining, measuring, sampling, testing of material or part of work.

The Engineer-in-charge/ Consultant 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. Observations / discrepancies noticed by third party quality assurance/audit shall be attended by the contractor at his own cost.

(b). Samples

- i) All samples of materials and /or items of works in adequate numbers, sizes, shades & pattern as per specifications shall be supplied free of charge by the contractor without any extra charge. All other expenditure required to be incurred like conveyance for taking the samples for testing at the laboratory, packing, etc, shall be borne by the contractor. If the test results do not confirm to the specifications and standards laid down, the materials shall be rejected, the contractor shall remove such materials from site. The laboratory for testing of samples shall be decided by the Engineer – in charge, whose decision shall be final and binding.
- ii) Contractor shall submit Samples to the Engineer-in-charge/Consultant 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 instead to the satisfaction of the Engineer-in-charge /Consultant. 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 the Engineer-in-charge /Consultant 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 Engineer-in-charge/Consultant.
- iii) 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 the Engineer-in-charge/ Consultant specific written notice of such variations, if any; that the sample submitted may have from the requirements of the contract document. Such notice shall 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
- iv) Review and Approval:
- a. 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.
 - b. 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 Engineer-in-charge/Consultant 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 the Engineer-in-charge/ Consultant on previous submittals.
 - c. 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 the Engineer-in-charge/Consultant's 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 Engineer-in-charge / Consultant relieve Contractor from responsibility for complying with the requirements of contract.
 - d. Only when the samples are approved in writing by the Consultant, the contractor shall proceed with the procurement and installation of the particular material / equipment. The approved samples shall be signed by the Consultant 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.
 - e. 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.
 - f. The Engineer-in-charge shall communicate his comments / approval to the Contractor to 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 Engineer-in-charge shall be the final.
- v) 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 /Consultant and compared with the approved sample and his specific obtained before using the same in the work.

(a). Cost of Tests

The cost of making any test shall be borne by the Contractor as intended by or provided for the Contract or as found necessary by the Engineer-in-charge/Consultant 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 fulfil.

(b). 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 General conditions of the contract (GCC) or as directed by the Engineer-in-charge/Consultant including staff required for testing. The test shall be carried out jointly in the presence of Engineer-in-charge/Consultant or his representative and the contractor or his representative.

The contractor shall also provide suitable weighing and measuring arrangement and testing instruments and machines for testing of materials and cubes at site as per details given in GCC.

The contractor shall carryout all the mandatory tests and shall maintain records of testing & checks of material, in formats, checklists etc. to be given by Engineer-in-charge /Consultant. All such records shall be maintained jointly by the contractor and Engineer-in-charge/Consultant these shall remain under the custody of the Engineer-in-charge /Consultant.

The laboratory shall be connected to the main potable water, electricity and other Services.

Some of the mandatory tests for each item of work and /or materials shall be carried out in approved outside laboratory as directed by the Engineer-in-charge/Consultant. The Contractor shall bear the entire cost of testing charges for samples of items of work and /or materials and also the other expenditure towards making samples, packaging, and transport etc.

The materials brought at site of work shall not be used in the work before getting satisfactory test result as per relevant mandatory tests, detailed in the relevant CPWD specifications.

13. Absence of Specifications

If the nomenclature of any item do not contain particulars of materials and works which are necessary for its proper execution, all such materials shall be supplied and item shall be executed by the Contractor without extra charge over the quoted rates and If the Contractor requires any information, he shall request in writing well in advance to commencement of the particular work to the Engineer-in-charge /Consultant who will clarify the issue within a reasonable time.

14. 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 fulfilment of the contract.

15. Access for Inspection

Persons nominated by Engineer-in-charge /Consultant 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 Engineer-in-charge / Consultant and their representatives every facility necessary for checking measurements, inspection and examination and test of the materials and workmanship.

16. 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/Consultant and the contractor shall give due notice to the Engineer-in-charge/ Consultant whenever any such work or foundation is or ready or about to be ready for examination and the Engineer-in-charge/Consultant shall, examine and measure any work before it is covered up or put out of view and to examine foundations before further work is placed thereon.

(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 Engineer-in-charge /Consultant may direct from time to time and shall reinstate and make good such part or parts to the satisfaction of the Engineer-in-charge /Consultant at his own cost.

17. Assignment

The contractor shall not, without the prior consent of the Engineer-in-charge / Consultant 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 money 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. Also, the Contractor shall not subcontract any part of the works without the prior consent of the Engineer-in-charge/ Consultant, except where otherwise provided under the Contract. Any such consent shall not relieve the Contractor from any liability or obligation under the Contract and he shall be fully responsible for the for the quality of the work executed and acts omission and commission, defaults and neglects of any Subcontractor, his agents, servants or workmen as if these were the acts, defaults or neglects of the Contractor, his agents, servants or workmen. Such Permission may be granted only for the specialized work etc and the decision of Engineer-in-charge/ Consultant shall be final.

18. Claims

The contractor shall submit to the Engineer-in-charge monthly statement giving full details of claims for any additional payments for extra or additional / substituted work ordered by the Engineer-in-charge /Consultant which he has executed during the preceding month, to which the contractor may consider himself entitled supported with analysis of rates being claimed.

19. Secured Advance

- I. Secured advance on materials, which are admissible as per Clause 10 (B) (i) of the General Conditions of Contract and brought to site for use in the work, shall be paid only after:
 - a. Receipt of satisfactory test result from the laboratory.
 - b. Engineer in charge has personally verified that the material brought at site of work for use in the work conforms to the sample approved by him.
- II. Secured advance shall be shall be recovered according to consumption of material in the work. Contractor shall have to sign an Indenture Bond before release of the advance.
- III. The materials shall virtually stand Hypothecated to Client/HLL but contractor shall be fully responsible for watch & ward/ security of materials for which Secured Advance has been paid by client/HLL.
- IV. Any infringement and / or breach of the above specifications and conditions etc, shall render the contractor liable to action under various clause of the contract and such action as stipulated in the conditions therein.

20. (a) Inspection & Testing during manufacture

The Client / Engineer-in-charge / Consultant shall be entitled to inspect, examine and test during manufacture the materials and workmanship and check the progress of manufacture of all fabrication materials to be supplied under the contract on the contractor's premises during working hours, and if part of the said materials is being manufactured on other premises, the contractor shall obtain for the Client / Engineer-in-charge / Consultant permission to inspect the same at such premises. This inspection, examination or testing shall not relieve the contractor from any obligation under the contract.

(b) Dates for Inspection & Testing

The dates of Inspection & Testing shall be mutually agreed by the Engineer-in-charge / Consultant and the contractor.

(c) 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 required and as may be reasonably demanded to carry out such tests.

(d) Certificate of Testing

As and when fabrication materials shall pass the tests referred in this clause, the Engineer-in-charge / Consultant shall furnish to the contractor a certificate in writing to that effect.

(e) Rejection

If as a result of such inspection, examination or test of the works (other than a Test on Completion the Engineer-in-charge / Consultant shall decide that such material is defective or not in accordance with the contract he shall notify the contractor accordingly stating in writing his observations and reasons thereof. The contractor shall with due diligence make good the defect and ensures that the material complies with the Contract. Thereafter, if required by the Engineer-in-charge/Consultant, the tests shall be repeated under the same terms and conditions till satisfactory results are made available.

(f) Delivery of Materials and Equipment

The contractor shall be responsible for all materials and equipment brought at site for the purposes of the contract. Unless the Engineer-in-charge/Consultant directs, no material shall

be brought to the site which is not required for execution of the work.

(g) Inspection & Testing and Re-inspection

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 Engineer-in-charge/Consultant. Rectified components shall be subject to re-testing till desired results are obtained.

(h) Inspection Reports

The contractor shall provide the Engineer - in- Charge /Consultant with five copies of reports of all inspection and tests.

21. Physical and Virtual Completion of Work

When the whole of the Work is physically and virtually complete and has satisfactorily passed required tests that may be prescribed under the Contract:-

- (a). The contractor shall give a written notice to this effect along with an under taking to rectify any defects that may be found during inspection. The Engineer - in- Charge / consultant shall jointly inspect the work with the contractor within 30 days of receipt of such notice.
- (b). The Engineer-in-charge / Consultant shall inspect the works are completed to see if they are 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 Engineer-in-charge/ Consultant will cause undue difficulties in satisfactory use/ occupation of the works.

22. Provisional Acceptance and Certificate of completion

(a) Provisional Acceptance and Issue of Certificate of Physical Completion of work

The work shall be deemed to have been physically completed and provisionally accepted after fulfilment of all the following by the Contractor.

- i) Physical completion of all works and obtaining all required approvals from the statutory authorities as required for occupation and use of the works and handing over such certificates to the Engineer-in-Incharge
- ii) Submitting As-Built Drawings, Catalogues, Brochures, and Data Sheets, manuals in the form as directed by Engineer in Charge
- iii) Issue of Certificate of Physical Completion by the Engineer-in- Incharge /Consultant.

(b) Certificate of Final Completion

The contract shall not be considered as completed until a Certificate of Final Completion has been issued by the Engineer-in-charge/ Consultant stating that the Works have been completed to his satisfaction and remedying / rectifying of defects have been satisfactorily completed.

The composite work shall be treated as complete when all the components of the work are complete. The Certificate for Final Completion of the Composite work shall be recorded by the Engineer-in-charge / Consultant after obtaining / recording of completion certificate of all the components.

The Engineer-in-charge/ Consultant shall give the Certificate for Final Completion as per the following, whichever is later:

- 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 last such period

OR

- As soon thereafter as any works ordered during such period 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.

23. The contractor shall give performance test of the entire work as per standards specifications before the work is finally accepted and nothing extra whatsoever shall be payable to the contractor for the tests.

24. The contractor shall maintain in perfect condition all works executed till the completion of the entire work allotted to him. Where phased handing over of completed portion of the work is required by the Engineer – in – charge, the provisions mentioned for completion of entire work will apply to each phase.

25. Defect after completion

(a). General

Any defect, shrinkage, settlement or other faults that may appear within the “Defects Liability Period” which in the opinion of the Client / Engineer-in- charge/ Consultant are due to materials or workmanship not in accordance with the contract, shall be rectified as per the directions in writing of the Client / Engineer-in- charge/ Consultant to the Authorized representative of the contractor within such reasonable time as shall be specified therein by the contractor, at his own cost. In case of default, the Client / Engineer-in-charge /Consultant/ may employ any person’s to amend and make good such defects, shrinkage, settlements or other faults and all expenses consequent thereon or incidental thereto shall be borne by the contractor. Such damages, losses and expenses shall be recoverable from the bills due or may be deducted from any money due to or that may become due to the contractor. If no amount is available to the credit of contractor, the Client / Engineer-in-charge/Consultant/ may recover the amount from the dues of the contractor with any other 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 Engineer-in-charge/Consultant from materials or workmanship not having in accordance with the contract, shall upon the direction in writing of the Engineer-in-charge’s / Consultant’s representative 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 Engineer-in- charge/Consultant, 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 depute at least one of his authorized representative at site along with required tradesmen to attend the defects to the satisfaction of Client/ Engineer-in-charge/ Consultant.

26. Works by Other Agencies

The Client/ Engineer-in-charge/Consultant 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 other agency. Such work shall be carried out in a manner so as not to impede the progress of the works included in the contract, the contractor shall not be responsible for any damage or delay which may happen to or occasioned by such work.

The contractor shall co-operate with other agencies working in the same project, and coordinate his plans and time schedules so that there will be no interference. The Contractor shall forward to the Engineer-in-charge /Consultant all correspondences and drawings exchanged. Failure to check plans for conditions will render the Contractor responsible for bearing the cost of any subsequent changes found necessary or damages done.

The Client/ Engineer-in-charge /Consultant shall not entertain any claim on account of the Contractor affording necessary facilities to execute the work simultaneously with other agencies executing the works for the same project.

27. Dues not paid by the Contractor

The contractor shall pay all dues or fees to Statutory authorities and Electric and Water supply authorities & Lift licensing authority etc. within due period and indemnify the Client and the Engineer-in-charge /Consultant 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 contractor / and or claims for compensations or penalties etc. are raised by the Statutory authorities, the Client may deposit the required amount or 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.

28. 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 Engineer-in-charge/ Consultant/Client be urgently necessary for the safety of the Works and the Contractor is unable or unwilling to do such work or repair despite notice, the Engineer-in-charge/ Consultant/ may employ and pay other persons to carry out such work or repair as the case may be and may consider necessary. If the work or repair so done by the other agency is the work which, in the opinion of the Engineer-in-charge/Consultant 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 Engineer-in-charge/Consultant, or may shall be deducted by the Engineer-in- charge/ Consultant from any monies due or which may become due to Contractor.

29. Boreholes & Exploratory Excavation

If, at any time during the execution of the Works, the Engineer-in-charge /Consultant 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.

30. 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.

31. 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 Engineer-in-charge /Consultant, 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 completion certificate/ Virtual completion of the work.

32. Operations and Maintenance Manual

The Contractor shall provide and submit to the Engineer-in-charge /Consultant with two copies of the Operation and Maintenance Instruction Manuals as may be applicable for the works in a durable plastic case.

33. Reports by Contractor

- (a.)** The Contractor shall submit CPM – Pert Chart and activity wise bar charts, indicating the duration of various subheads of the work, for the complete work within 30 days of award of work for approval by the Engineer - in- Charge /Consultant. On the basis of approved bar charts contractor shall submit Progress Charts by the 4th day of every month.
- (b.)** The Contractor shall submit Monthly Progress Report in triplicate in format approved by Engineer-in-charge /Consultant. Failure to submit reports may result in holding up or delay in Payment of bills.
- (c.) 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) 6 Nos. or more per month per block as directed by the Engineer-in-charge / Consultant during the constructions stages and after completion and shall supply three sets at no extra cost. The Contractor will be required to submit monthly reports on the progress of his work as per the format approved by the Engineer-in-charge /Consultant.
- (d.)** 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 Engineer-in-charge /Consultant & shall be reviewed in Weekly Co-ordination Meetings.
- (e.)** The Contractor shall file daily category-wise labour report to the Engineer-in- charge / Consultant. The report shall indicate scheduled requirement against actual strength.
- (f.)** The contractor shall maintain daily weather record. Daily maximum and minimum temperature and corresponding, humidity shall be recorded and charted. Rainy days shall be

recorded when the rain lasting more than one hour hampers the work. Any other inclemency in weather shall be recorded. The records shall be regularly shown to the Engineer-in-charge /Consultant and his signature obtained.

- 34.** Every care has been made to include all the aspects/ terms and condition in these documents. However, during execution, if any issue arises, which has not been included in these documents then standard norms / rules & regulations/ terms & conditions as prevalent in CPWD shall be followed which shall be binding on both the parties.

35. Technical Examination

The Client/ Engineer-In-Charge/ Consultant 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/ Engineer-in-charge/ Consultant 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 upon which there is a recovery from the contractor, recovery shall be made with orders of the Client whose decision shall be final. All action under this clause shall be initiated and intimated to the contractor within the period of twelve months from the date of completion.

36. Miscellaneous

(a.) 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

(b.) 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, maintain labour records including payment made to the workers and obtain licence for engaging workers for the work as required under the labour laws.

(c.) By-Laws of Statutory Authorities

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

(d.) Tax Deduction at Source

All Taxes and surcharge as applicable on date shall be deducted from the amount due to the Contractor towards the value of the work done. TDS certificate thereof shall be

issued to the Contractor.

(e.) 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 watch post, when and where necessary or directed by the Engineer-in-charge / Consultant or by any duly constituted authority for the protect for the safety and convenience of the workers / public / or others.

(f.) 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.

(g.) Site instruction book

For the purpose of quick communication between Engineer-in- charge / Consultant 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 instructions in the site instruction book. Such a communication from Engineer-in-charge / Consultant to the Contractor shall be deemed to have been adequately served in terms of the contract once the entries are made and signed by the authorised representative of the contractor. For this purpose the contractor should authorise one of his employees on the site instruction book itself. Site instruction book shall have machine numbered pages and shall be carefully maintained and remain under custody of Engineer-in-charge / Consultant/Client the contractor can also avail of the site instructions book for urgent communication with Engineer-in-charge/ Consultant. Any instruction which Engineer-in-charge / Consultant may like to issue to the Contractor may be recorded by the Engineer-in-charge / Consultant in site instruction book.

(h.) Signage

The Contractor shall provide at his own cost, a sign board at directed location having overall size 2 meters by 4 meters indicating name of the project, and a three-D view of the project, as approved by Engineer-In-Charge/ Consultant. The signboard will be illuminated during night.

(i.) **Cutting of Trees** Permission for cutting of trees if required will be obtained by Client from the concerned authority

(j.) The contractor shall have adequate generators of required capacity as per site requirement as stand by arrangement.

(k.) The temporary connection for electric line and water line from local authorities shall be taken by the contractor who will bear the expenditures

(l.) 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.

(m.) The Contractor shall mobilize and employ sufficient resources for completion of all the works within the stipulated time period as per agreement and as indicated in the approved 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 Engineer-in-charge /Consultant.

37. Co-ordination Meetings

The Contractor shall be required to attend co-ordination meetings with the Engineer-in-charge / Consultant / Client and the other Contractors during the period of Contract as intimated by the Engineer-in-charge / Consultant / Client. All costs incidental to such interaction shall be to the Contractor's account and no claim will be entertained by the Engineer-in-charge / Consultant / Client on this account.

38. Site Management:

(a) Contractor's Working Area

Suitable working space will be provided by the Engineer-in-charge/Consultant /Client to the Contractor as per site conditions and availability. The Contractor may have to carry out some cutting / filling work for making this area workable. The cost of all such Works shall be deemed to have been included in the contract price quoted for the Works and no payment shall be made on this account.

Before commencement of the work, the contractor shall obtain approval of the Engineer-in-charge the location of cement godown, steel stacking and fabrication yard, site office and shall from time to time take instructions from the Engineer – in- charge regarding collection and stacking of materials at the site.

No excavated earth or building material shall be stacked on areas where other buildings, roads, services or compound wall or any other structure are to be constructed.

(b) Contractor's Temporary Structures

The Contractor may, at his own expense and subject to the approval of the Engineer-in-charge / Consultant /Client and statutory authorities, construct temporary structures for its site office, stores; Workshop etc. in the working area allocated to him as above and remove the same on completion of Works. The Contractor shall furnish such details of his Temporary Works as may be called for by the Engineer-in-charge/Consultant /Client and the Contractor shall satisfy the Engineer-in-charge/Consultant as to their structural safety. Temporary structures, found unsafe or inefficient shall be removed and replaced in a satisfactory manner.

(c) Contractor's Labour Camp

The Contractor shall make arrangements at his own expense for labour camp / accommodation for labour and staff to be employed for execution of the work and their conveyance to Site. No workers/ staff shall be allowed to stay within the Site except with the specific approval of the Engineer-in-charge/Consultant /Client. Proper ID Cards shall be got approved /authorized by the contractor from the Engineer-in-charge/ Consultant / Client to authorise the Contractor's staff and workers to enter the Site.

(d) Procurement of Various Materials

The Engineer-in-charge/ Consultant / Client will not supply any materials required for execution of the Works under this Contract. The Contractor must, therefore, make his own arrangements for timely procurement of various materials including steel and cement. Prior approval of each and every material including steel cement, aggregate, bricks etc or any other fittings & fixtures shall be taken by the contractor from the Engineer-in-charge / Consultant. Samples for all the materials to be used in the work shall be got approved from Engineer-in-charge /Consultant before their bulk procurement. Samples approved shall be kept in the sample room till the completion of the work. However in case of delay in procurement of various materials by the contractor resulting into likely delay in completion

of work, the Engineer-in-charge /Consultant /Client may procure the required materials directly and the cost of the same will be recovered from the contractor.

(e) Water Supply & Power Supply

The Contractor shall make his own arrangement for water supply at Site for drinking as well as construction purposes & Power Supply at his own cost. Non-availability of power supply and /or water from whatever source shall not entail any additional claims or extension of Contract period in this account.

(f) Site office

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(g) Temporary Fencing

The Contractor shall at his own expense, erect and maintain in good condition temporary fence all around the working area as per directions of the Engineer-in-charge / Consultant

(h) The contractor shall make, till completion of the project arrangements for/of:

- i. Proper pumping for removing water from the basement or elsewhere at site.
- ii. Proper security, safety, transportation, manpower, lighting arrangement for execution of works at night.
- iii. Tower crane, batching plant and others machinery, tools and tackles required for timely execution of work.
- iv. Proper barricading around site so that surrounding area is made free from disturbances. The specifications of barricading shall be got approved by Engineer-in-charge / Consultant. External face of barricading to display name of Client, Consultant & Engineer-in-charge. No sign board of contractor is allowed unless permitted by the Engineer-in-charge in writing.
- v. Diversion of underground services with the approval of Engineer-in- charge.

(i) Restriction in work areas.

- (a). The contractor must see the site of the work, its approaches carefully before tendering, No claim of any sort shall be entertained on account on account of any site conditions. If any approach from main road is required or existing approach is to be improved and maintained, for cartage and materials by the contractor, the same shall be done by the contractor his own cost.
- (b). Some restrictions may be imposed by the Hospital Administrative authorities or its security staff etc. On the working and/or movement of labour, materials etc. The contractor shall be follow all such restrictions / instructions and nothing shall be payable on this account.
- (c). In case the contractor is not permitted to erect the huts for labour at the site of work, the contractor will have to make his own arrangement to provide such accommodation elsewhere and nothing extra shall be paid for this.
- (d). The contractor shall obtain approval of the Hospital Administrative authorities to erect the hutments for labour etc. at the site of work; denial of approval shall not affect the construction activities.
- (e). The contractor shall take all precautions to avoid accidents by exhibiting necessary caution boards such as day and night boards, speed limit boards, red lights and providing barriers. He shall be responsible for all damages and accidents caused due to

negligence on his part. No hindrance shall be caused to traffic during the execution of the work.

39. Payment of water charges in connection with water used for construction purpose and for drinking purpose by the contractor's labour.

Both the water charges (if any) incidents to water used by the Contractor for construction purpose and for the drinking purpose for his labours residing in the site of work shall be borne by the Contractor / agency under the following cases:

- i. In case of temporary water connections from municipal mains: - Water charges (including the water used for construction purpose and drinking purpose of the contractor's labours) have to be borne by the contractor / agency.
- ii. Water used from other source: - Prior permission for using the water for construction purpose and drinking purpose of the contractor's labours has to be obtained from Municipal Corporation / local body by the contractor / agency. Water charges if any and other charges for use of water from other sources for construction purposes/for drinking purposes of the contractor's labours have to be borne by the contractor / agency.
- iii. Any infringement and / or breach of the above shall render the contractor liable to action under various clauses of the contract and such actions stipulated in the conditions therein.

40. Statutory Requirements/ Approvals

The Contractor shall be responsible for obtaining approval from local electrical inspector, Lifts authority & water & Sewer line connection, tree cuttings, permission for bore well and for temporary structures etc. from local Authorities. All the statutory expenditure incurred towards payment to the local bodies for getting local Electric inspector, sewer line and water supply connection for Client/ Engineer-in-charge /Consultant will be reimbursed on the production of proof of payment. Contractor will be extended all assistance in this connection by the Engineer-in-charge /Consultant/ client.

The Contractor shall obtain all necessary approvals from Municipal and other local bodies including Municipal bodies, Water supply agencies concerned, Electric Supply and inspectorate. Agencies concerned, Police and Security Agencies, Chief Controller of Explosives, Fire Department, Civil Aviation Department, concerned in accordance to prevailing rules, Building Bye-Laws etc., as the case may be with related to Construction/ Completion. All expenditure on this account will be borne by the contractor. However the fees paid by the contractor to these statutory authorities only for obtaining the required statutory approvals shall be reimbursed by the Client on submission of valid payment receipts from these statutory authorities.

The Engineer-in-charge/Consultant /Client may, at the written request of the Contractor, assist him in obtaining the approvals from relevant authorities. However any such request by the Contractor shall not bind the Engineer-in-charge/Consultant /Client in any manner.

41. Compliance of Statutory Obligations for obtaining completion Certificates:

The Contractor shall comply all the statutory obligations and obtain all required clearances to implement the project without any financial repercussions to Engineer-in-charge /Consultant /client and ensure all follow up actions with the local authorities in this respect for smooth completion of the project. All statutory charges to get any NOC, clearances from local authorities shall be reimbursed by the Engineer-in-charge /Consultant / client after submission of the bills/documentary evidences by the contractor. The contractor shall assist the client/Engineer-in-charge /Consultant to obtain all NOC, completion & Occupancy certificates from respective local bodies and other statutory authorities.

Contractor shall organise all inspections of concerned authorities & obtain the NOC's within the time for completion.

The contractor is required to submit the relevant drawings like completion Drawings and any other statutory documentary requirements of local bodies in copies as per requirement to obtain the above etc. at their own cost.

SECTION – 2

ADDITIONAL CONDITIONS OF CONTRACT AND SPECIFICATIONS

(A) RELATING TO CIVIL, ELECTRICAL & PLUMBING WORKS

1.0 General

- 1.1 The following Additional Conditions and specification shall be read in conjunction with General Conditions of Contract and Specific Conditions of Contract. If there are any provisions in these Additional Conditions of Contract & specifications which are at variance with the provisions in the above mentioned documents, the provisions in these Additional Conditions of Contract & specifications shall take precedence.
- 1.2 Rates: -
 - 1.2.1 The quoted rates shall be for complete items of work i.e. inclusive of material, labour, plant and machinery, tools and tackles, batching plant etc. including water & electricity, overheads charges, all taxes, statutory charges / levies applicable from time to time and others as specified etc, incidental works and all other charges for items contingent to the work, such as, packing, forwarding, insurance, freight and delivery at Site, watch and ward of all materials & successful installation, testing & commissioning at site etc.
 - 1.2.2 The rate of all items of work, shall, unless clearly specified otherwise include cost of all labour, materials and all other inputs required in the execution of the item, including octroi, sales tax and any other taxes.
 - 1.2.3 Unless otherwise specified in the schedule of quantities, the rate tendered by the contractor shall be all inclusive and shall apply to all heights, lifts, leads and depth of the building and nothing extra shall be payable to him on any account.
 - 1.2.4 The rates for items of work wherein cement is used are inclusive of cost for curing
 - 1.2.5 Royalty at the prevalent rates whenever payable shall have to be borne by the contractor on the boulders, metal, shingle, sand and bajri etc. Or any other materials collected by him for the work direct to the revenue authority of the District / state Government concerned and nothing extra shall be payable on this account

2.0 Scope of Contract

- 2.1 The **scope** of proposed work consists of Construction of Balance Building Works for Setting up of Residential Complex at AIIMS, Rishikesh (UK).
Present Stage: - The work for setting up of residential complex at AIIMS Rishikesh was awarded to M/s CRS Infra Projects Limited, New Delhi, which has since been rescinded. The contractor had executed major parts of Building Works.
Present Scope of work:- The scope of work includes the balance building works of nurses hostel in the residential complex of AIIMS at Rishikesh, Uttarakhand, as per BOQ and additional works, if any, as per the directions of the Engineer-in-charge.
- 2.2 The work shall be carried out in conformity with the relevant drawings and the requirement of architectural, electrical, structural, and other specialised service drawings approved by Engineer-in-charge/Consultant.
- 2.3 The Contractor shall make provision of hangers, sleeves, structural openings and other requirements during construction to avoid holding up progress of the construction

schedule. The Contractor should ensure that the structure is designed for additional loads or cut outs. Subsequent Cutting holes in the RCC structural members /slab shall not be allowed.

- 2.4 The contract items comprises of furnishing of all materials, equipment, labour & transportation etc. necessary to render the installation / item fully operational as per the intent of specification and drawings, including any necessary adjustment or corrections. Further the installation / item shall be in conformity with local laws and manufacturer instructions applicable.

3 Contract Drawings

- 3.1 The drawings issued with the Bid are diagrammatic only and indicate the extent and general arrangement of the installation. Drawings shall not be scaled.
- 3.2 The Contractor shall follow the Bid drawings for preparation of his detailed sanitary, plumbing & fire fighting & Shop drawings and for subsequent installation work and also cross check the drawings of other services to avoid subsequent complications in inter services. Any discrepancies observed should be immediately brought into the notice of Engineer-in-charge/Consultant and clarifications obtained. No changes from approved plans shall be made without prior approval of the Engineer-in-charge.

4 Shop Drawings

- 4.1 The Contractor shall furnish for approval of the Engineer-in-charge/Consultant three sets of detailed sanitary, plumbing, fire fighting (external & internal), Pump room & Shop drawings of all equipment and materials required to complete the work as per specifications well in advance. These drawings shall contain details of construction, size, arrangement, operating clearances, performance characteristics, and capacity of all items of equipment, as also the details of all related items of work of other trades. All shop drawings to be made in accordance with latest fire safety norms and building codes.
- 4.2 All drawings necessary for assembly, erection, maintenance, repair and operation of the equipment shall be furnished and different parts shall be suitably numbered for identification and ordering of spare parts.
- 4.3 For any amendments proposed by Engineer-in-charge / Consultant in the above drawings, the Contractor shall supply fresh sets of drawings with the amendments duly incorporated, along with the drawings on which corrections were indicated.
- 4.4 No material or equipment may be brought at Site until the Contractor has the approved Shop drawings for that particular material or equipment.
- 4.5 After approval of the drawings by the Engineer-in-charge / Consultant, the Contractor shall further furnish six sets of Shop drawings for the exclusive use of and retention by the Engineer-in-charge/Consultant /Client.
- 4.6 Approval of drawings by the Engineer-in-charge/Consultant shall not relieve the Contractor of any obligation to meet all the requirements of the Contract or of the correctness of his drawings. The Engineer's approval of specific item shall not mean the approval of the assembly of which it is a component. The Contractor shall be responsible for and is to bear the cost for all alternations of the works due to discrepancies or omission in the drawings or other particulars supplied by him, whether such drawings have been approved by the Engineer-in-charge/ Consultant or not.
- 4.7 Where the work of the Contractor has to be installed in close proximity to, or will interfere with the work of other trades, the Contractor shall assist in working out the

space conditions to make a satisfactory adjustment. If so directed by the Engineer, the Contractor shall prepare composite working drawings and sections to a suitable scale not less than 1:50, clearly showing how his work is to be installed in relation to the work of other trades. If the Contractor installs his work before coordinating with other trades, and it is cause for any interference with the work of other trades, he shall make all the necessary changes without extra cost.

- 4.8 All shop drawings and detail drawings will be made as per requirements of local authorities and tender drawings incorporating all latest regulations and requirements. No separate drawings will be, issued for making shop drawings.

5 Samples and Catalogues

- 5.1 Prior to ordering any equipment/ material/ system, the Contractor shall submit to the Engineer-in-charge/ Consultant the catalogues, along with samples from approved list of manufacturers. No material shall be procured without written approval of the Engineer-in-charge / Consultant.

5.2 Approval of Materials

All materials used on the Works shall be new and of the best quality and make available, conforming to the relevant specifications of the contract. Prior approval shall be obtained in writing from the Engineer-in-charge/Consultant for all materials proposed and when necessary, approved samples duly identified and labelled shall be deposited with the Engineer-in-charge/ Consultant and shall be kept in the sample room at Site. List of approved make indicates make / manufacturer generally acceptability. Final choice of make / manufacturer of material & models shall be with the Engineer-in-charge /Consultant.

6 Material and Equipment

- 6.1 All material and equipment shall conform to the relevant Indian Standards and bear IS marking where ever applicable.
- 6.2 Where interfacing is involved, both equipments shall be mutually compatible in all respects.
- 6.3 Where an item of equipment, other than as specified or detailed on the drawings, is approved by Engineer-in-charge/ Consultant, requires any re-design of the structure, partitions, foundation, piping, writing or any other part of the mechanical, electrical or architectural layout, all such re-design, and all new drawings and detailing required therefore, shall be prepared by the Contractor at his own expense and approval obtained by the Engineer.
- 6.4 All similar equipment, materials, removable parts of similar equipment etc. shall be inter-changeable with one another.

6.5 Approved makes for materials and vendor list

The contractor shall procure materials from vendors as mentioned in the vendor lists enclosed. In case a material is not available from any of the vendors in the enclosed vendor lists, the contractor may intimate and submit details of source from where, the contractor wishes to procure the material, along with complete details and the particular material shall be got approved from the Engineer - in- Charge before procurement.

7 Procurement of Cement and Steel

The **procurement** of Cement and Reinforcement Steel, and, their issue and consumption shall be governed as per conditions laid down hereunder.

7.1 Cement

- 7.1.1 The contractor shall procure 43 grade Ordinary Portland cement conforming to IS 8112 / Portland Pozzolana Cement conforming to IS 1489 (Part I) as required in the work, from manufacturers as per list of approved makes.
- 7.1.2 In case the cement is not available from manufacturers as per list of approved makes, the tenderers may submit a list of names of cement manufacturers from which they propose to use in the work or from any other reputed manufacturer having a production capacity not less than one million tonnes per annum as approved by the HLL/ MoHFW.
- 7.1.3 The tender accepting authority reserves right to accept or reject name(s) of cement manufacturer(s) which the tenderer proposes to use in the work. No change in the tendered rates will be accepted if the tender accepting authority does not accept the list of cement manufacturers, given by the tenderer, fully or partially.
- 7.1.4 The supply of cement shall be taken in 50 kg. bags bearing manufacturer's name and ISI marking. Samples of cement arranged by the contractor shall be taken by the Engineer-in-charge and got tested in accordance with provisions of relevant BIS codes. In case the test results indicate that the cement arranged by the contractor does not conform to the relevant BIS codes, the same shall stand rejected, and it shall be removed from the site by the contractor at his own cost within a week's time of written order from the Engineer- in-charge to do so.
- 7.1.5 The Cement shall be brought at site in bulk supply of approximately 50 tonnes or as decided by the Engineer-in-Charge
- 7.1.6 The cement godown of the capacity to store about 2000 bags of cement or as decided by the Engineer-in-Charge shall be constructed by the contractor at site of work for which no extra payment shall be made. Double lock provision shall be made to the door of the cement godown. The keys of one lock shall remain with the Engineer-in-Charge or his authorized representative and the key of other lock shall remain with the contractor. The contractor shall facilitate the inspection of the cement godown by the Engineer-in-Charge at any time.
- 7.1.7 The contractor shall supply free of charge the cement required for testing including its transportation to testing laboratories. The cost of tests shall be borne by the contractor.

7.2 Steel

- 7.2.1 The contractor shall procure TMT bars of Fe415/Fe415D/Fe500/Fe550/Fe550D grade (the grade as per BOQ) from manufacturers as per list of approved makes.
- 7.2.2 The grade of the steel such as **Fe 415/Fe 415D/Fe 500/Fe500 D/Fe 550 / Fe 550 D** or other grade (the grade as per BOQ) to be procured is to be specified as per BIS 1786-2008. The TMT bars procured from Primary producers shall conform to manufacturer's specifications.
- 7.2.3 The contractor shall have to obtain and furnish test certificates to the Engineer-in-charge in respect of all supplies of steel brought by him to the site of work.
- 7.2.4 Samples shall also be taken and got tested by the Engineer-in-Charge as per the provisions in this regard in relevant BIS codes such as IS 1786: 2008. In case the test results indicate that the steel arranged by the contractor does not conform to the specifications as defined above, the same shall stand rejected, and it shall be removed from the site of work by the contractor at his cost within a week time or

written orders from the Engineer-in-Charge to do so.

- 7.2.5 The steel reinforcement bars shall be brought to the site in bulk supply of 10 tonnes or more, or as decided by the Engineer-in-charge.
- 7.2.6 The steel reinforcement bars shall be stored by the contractor at site of work in such a way as to prevent their distortion and corrosion, and nothing extra shall be paid on this account. Bars of different sizes and lengths shall be stored separately to facilitate easy counting and checking.
- 7.2.7 For checking nominal mass, tensile strength, bend test, re-bend test etc. specimens of sufficient length shall be cut from each size of the bar at random, and at frequency not less than that specified below:

<i>Size of bar</i>	<i>For consignment below 100 tonnes</i>	<i>For consignment above 100 tonnes</i>
Under 10 mm dia bars	One sample for each 25 tonnes or part thereof	One sample for each 40 tonnes or part thereof
10 mm to 16 mm dia bars	One sample for each 35 tonnes or part thereof	One sample for each 45 tonnes or part thereof
Over 16 mm dia bars	One sample for each 45 tonnes or part thereof	One sample for each 50 tonnes or part thereof

- 7.2.8 The contractor shall supply free of charge the steel required for testing including its transportation to testing laboratories. The cost of tests shall be borne by the contractor.
- 7.2.9 The actual issue and consumption of steel on work shall be regulated and proper accounts maintained as provided in clause 10 of the contract. The theoretical consumption of steel shall be worked out as per procedure prescribed in clause 42 of the contract and shall be governed by conditions laid therein. In case the consumption is less than theoretical consumption including permissible variations recovery at the rate so prescribed shall be made. In case of excess consumption no adjustment need to be made.
- 7.2.10 The steel brought to site and the steel remaining unused shall not be removed from site without the written permission of the Engineer-in-charge.
- 7.2.11 Coefficient of weight i.e. the weight per unit length of the steel procured by the contractor shall be ascertained at site before using it and certified by the Engineer-In-Charge. In case weight per unit length is beyond the rolling margin as laid down in the BIS: 1786, the steel will be rejected and shall be removed from the site of work within a weeks' time from written order from the Engineer-in-Charge to do so. In case weight per unit length is more than the standard coefficient of weight for the diameter, but is within the rolling margin, then the payment shall be made as per the standard weight per unit length, and, where the weight per unit length is lesser than the standard coefficient of weight for the diameter, but is within the rolling margin, the payment shall be restricted with respect to the actual weight per unit length of the diameter.
- 7.3 The actual issue and consumption of steel and Cement on the work shall be regulated and proper accounts maintained as provided in clause 10 of the contract. The theoretical consumption of steel shall be worked out as per procedure prescribed in clause 42 of the contract and shall be governed by conditions laid therein.
- 7.4 Steel and Cement brought to site and remaining unused shall not be removed from site without the written permission of the Engineer-In-Charge.

- 7.5 No payment shall be made to the contractor for any damage caused during the execution of work because of cause(s) not covered under Clause 43 of the Contract. The damage to work will be made good by the contractor at his own cost, and no claim on this account shall be entertained.
- 7.6 The Contractor shall maintain safe custody of materials brought to the site. The Contractor shall also employ necessary watch and ward establishment for the work and other purposes as required at his own cost.
- 7.7 For Cement and Steel and other materials, as prescribed, the quantities brought at site shall be entered in the respective material at site accounts and shall be treated as issued for maintenance of daily consumption.

8 Conformity with Statutory Acts, Rules and Standards

- 8.1 The installation shall be in conformity with the Bye-laws Regulations and Standards of the local authorities applicable to the installations. But if the specifications and drawings call for a higher standard of materials and/or workmanship than those required by any of the above regulations and those required by any of the above regulations and standards, then the specifications and drawings shall take precedence over the said Regulations and Standards.
- 8.2 However, if the drawings or specifications required something, which violates the Byelaws and Regulations, then the Bye-laws and Regulations shall govern the requirement of such installation/drawings.
- 8.3 Indian Standards: The System / Components shall conform to relevant Indian standards wherever they exist and to the National Building Code Amended up to date.
- 8.4 Nothing in these Specifications shall be construed to relieve the contractor of his responsibility for the design, Manufacture and installation of equipment with all its accessories in accordance with applicable statutory regulations and safety codes in force.

9 Manufacturer's Instructions

Where manufacturers have furnished specific instructions relating to the materials and equipment used, covering points not specifically mentioned in these documents, manufacturer's instructions shall be followed with the approval of Engineer-in-charge.

10 Training and Operating Instructions

- 10.1 If required by the Engineer-in-charge / Consultant, the Contractor shall at his cost, train members of the maintenance staff either at his or the subcontractor's workshop or at such other place or places as may be considered suitable by the Engineer-in-charge / Consultant.
- 10.2 Upon completion of all work and all tests, the Contractor shall furnish the necessary skilled labour and helpers for operating the entire installation for a period of fifteen (15) working days. During this period, the Contractor shall instruct and train the Engineer-in-charge /Consultant/ client representative in operation, adjustments and maintenance of the equipment installed.
- 10.3 The Contractor shall submit to the Engineer-in-charge /Consultant draft comprehensive operating instructions and maintenance schedule for all systems and equipment included in this Contract. This shall be supplemented, not substituted, by manufacturer's operating and maintenance manuals. Upon approval of the draft, the Contractor shall submit to the Engineer-in-charge/Consultant four (4) complete bound sets of operating and maintenance schedules along with manufacturers printed literature.

11 Inspection and Testing

- 11.1 The Engineer-in-charge / Consultant reserve the right to request inspection and testing at manufacturer's Works at all reasonable times during manufacture of items for this Contract.
- 11.2 The Engineer-in-charge / Consultant or his authorised representative shall have full power to inspect the materials and workmanship at the Contractor's Works or at any place from which the materials or equipment is obtained. Approval by the Engineer-in-charge /Consultant of any material or equipment shall in no way relieve the Contractor of his responsibility for meeting the requirements of the specifications. All incident expenditure like travelling, boarding and lodging etc shall be born by the contractor.
- 11.3 Routine and typical tests for the various items of equipment shall be performed at the Contractor's Workshop in the presence of Engineer-in-charge/Consultant or his authorised representative, results recorded and test certificates issued.
- 11.4 After installation has been virtually completed, the Contractor shall carry out under the direction and in the presence of the representative of the Engineer-in-charge such tests and inspections as have been specified, or as considered necessary to determine whether or not the requirements of the item, drawings and specifications have been fulfilled. In case the work does not meet the full intent of the drawings and specifications and further tests after making require changes and as considered necessary shall be done again, the Contractor shall carry them out and bear the expenses thereof. If test fail to demonstrate the satisfactory nature of the installation or any part thereof, then no claims for the extra cost of modifications, replacement or retesting will be considered. The decision of the Engineer shall be regarded as final as to what constitutes a satisfactory test.
- 11.5 The above general requirements as to testing shall be read in conjunction with any particular requirements specified elsewhere
- 11.6 The Contractor shall provide all necessary instruments such as Theodolite, Dumpy level, steel tapes, weighing machine, plumb bobs, spirit levels, hammers, micro-meters, thermometers, hydraulic cube testing machine, smoke test machine and labour for conducting tests. All such equipments shall be tested for calibration by an approved laboratory. The Contractor shall make adequate records of the test procedures, readings and results to be maintained by the Engineer-in-charge/Consultant who shall issue test certificates signed by the person authorised by him.

12 Test Certificates

The contractor shall submit test certificates for all the materials / systems issued by government recognized inspection / office / manufacturer certifying the Equipment / Materials / installation and its function are in agreement with the requirements of relevant specification and accepted standards.

13 Performance Guarantee

It is clearly understood that the specifications, drawings, schedule of quantities for fire fighting system are for bidder's guidance only. The bidder shall carry out necessary calculation and provide alternative equipment required to achieve the specified level of fire fighting required for human safety. Complete sets of Architectural Drawings shall be available at site in the Engineer-in-charge / Consultant office and reference may be made to these drawings as required for calculations or for other details. The contractor shall also guarantee that performance of various equipments, individually, shall not be less than, the specified ratings.

14 Quiet Operation and Vibration

All equipments shall operate under all conditions of designed load without any sound or vibration, which is considered objectionable by the Engineer-in-charge. Such conditions shall be corrected by the Contractor at his own expense. Decision of the Engineer-in-charge / Consultant shall be final in this regard.

15 Accessibility

The Contractor shall locate all equipment, which require servicing, operation or regular maintenance in a fully accessible positions. The exact location and size of access panels, required for each valve or other devices requiring attendance, shall be finalised and communicated to Engineer - in- Charge well in time, to facilitate working by other agencies, failing this, the Contractor shall make all the necessary repairs and changes at his own expense.

16 Handing over & Taking over process

For handing over & taking over process, in addition to clauses specified elsewhere, following services / works have to be complied with by the main contractor:

- a. Submission of Guarantees in stamp paper, of appropriate value, (format approved by Engineer-in-charge/ Consultant) for all water proofing treatment executed in the works for a period of ten years. If any defects noticed within 10 years from completion of defect liability period the main contractor shall be sole responsible for the defects and same shall be rectified by the main contractor as per information from client within a period of 10 days from the notice.
- b. Rectification of all defects shall be carried out by the main contractor before Handing over/ Taking over process.
- c. As built drawings : - **4** (four) sets for Architectural, Structural, Plumbing, Electrical, HVAC system, Specialised services and other required drawings as approved by Engineer-in-charge / Consultant shall be submitted by the main contractor before handing over & taking over process.
- d. All services/equipments to be run and check before handing over & taking over process as per requirements of Engineer-in-charge/Consultant.
- e. Contractor has to arrange water, electricity, fuel , consumables and manpower at their own cost for the purpose of testing of services and equipments. No amount shall be payable on this account.
- f. Main contractor shall submit catalogues, brochures, operation manual, manufacturer test certificate, Guaranty/ Warranty papers, licence etc for all equipments /materials before handing over & taking over process.

(B) RELATING TO CIVIL WORKS**(i) Receipt and storage of materials:**

- a. **Cement bags** shall be stored in Godowns to be constructed by contractor at his own cost as per sketch of CPWD specifications with weather proof roofs and walls. Godown shall be provided with a single door with two locks. The keys of one lock shall remain with the authorized representatives and that of the other lock with the authorized agent of the contractor at the site of work so that the cement is removed from the godown according to the daily requirement with the knowledge of both the parties. Samples of fresh cement shall be got tested from lab. Only tested cement shall be allowed in the work, contractor shall bring cement keeping this in view to maintain progress of the work. No request for extension of time on this account shall be entertained.
 - b. The contractor shall be fully responsible for the safe custody of the materials brought at site even if the materials are under double lock system.
 - c. The contractor shall construct suitable godowns – yards at the location of the site of work duly approved by the Engineer – in – charge or his authorized representative for storing all other materials so as to be safe against damage by sun, rain, dampness, theft etc. at his own cost and employ necessary watch and ward establishment at his cost.
 - d. The contractor shall maintain and render proper account of all material brought by him to the site, consumed by him on the work and balance if any. In respect of steel reinforcement bars, theoretical consumption will be calculated diameter wise.
 - e. All material obtained from Government stores or otherwise shall be got checked by the Engineer in charge of the work on the receipt of the same before its use in the work.
- (ii) Marine plywood only or steel plates of minimum thickness as approved by Engineer-in-charge / Consultant shall be used for formwork. All shuttering material to be used at site will be new / just like new as approved by Engineer-in-charge/Consultant The shuttering plates shall be cleaned and oiled after every repetition and shall be used only after obtaining approval of Engineer's representative at site. The number of repetitions allowed for plywood and steel shuttering shall be at the discretion of Engineer-in- charge / Consultant depending upon the condition of shuttering surface after each use and the decision of Engineer-in-charge/ Consultant in this regard shall be final and binding on the contractor. No claim whatsoever on this account shall be admissible.
- (iii) Anti-termite treatment & waterproofing treatment:-
- a. The treatment against water-proofing of basement, roofs, water retaining areas and termite infestation shall be of type and specifications as given in the schedule of quantities 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 Engineer-in-charge / Consultant 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 Engineer-in-charge /Consultant or his representative may get the same done by another agency at the Contractor's cost and risk and the decision of the Client/ Engineer-in-charge / Consultant 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.

- b. Water proofing and anti-termite treatment shall be got done through approved specialized agencies only with prior approval of the Engineer-in-charge / Consultant 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.
- c. The contractor shall submit a guarantee bond for the water proofing and anti-termite work executed under the contract in a format specified in the GCC. Further a security deposit amounting to 10% of the cost of these items as executed shall be retained for a period of 10 years with effect from actual date of actual completion of the work. 50% of the security deposit shall be released on successful completion of 5 years period and the balance shall be released on completion of 10 years.

(iv) Records of Consumption of Cement & Steel –

- a. 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 Engineer-in-charge / Consultant, showing columns like quantity received and used in work and balance in hand etc. The contractor's representative shall sign this register daily.
- b. The register of cement & steel shall be kept at site in the safe custody of Engineer-in-charge / Consultant during progress of the work. This provision will not, however, absolve the contractor from the quality of the final product.

C) RELATING TO ELECTRICAL WORKS & INSTALLATIONS

1.0 General

- i. The electrical installation shall be in total conformity with the control wiring drawings prepared by the Contractor and approved by the Engineer-in-charge & shall be connected and tested in the presence of an authorised representative of the Contractor and of the Engineer - in- Charge.
- ii. The responsibility for the sufficiency, adequacy and conformity to the Contract requirements of the electrical installation work lies solely with the Contractor.

2.0 Regulations and Standards

The installations shall conform in all respects to Indian Standard Code of Practice for Electrical Wiring Installation IS: 732-1989 and as per latest CPWD General Specification for Electrical Works as mentioned in Schedule "F" of General Conditions of Contract. It shall also be in conformity with the current Indian Electricity Rules and regulations in so far as these are applicable to the installations. Wherever these Additional Specific Conditions call

for a higher standard of material and/or workmanship than those required by any of the above regulations, then this Additional Specific Conditions shall take precedence over the said Regulation and Standards. External works & fire detection & alarm system works to be done as per CPWD specification & relevant BIS codes.

3.0 Completeness of Bid

All sundry fittings, assemblies, accessories, hardware items, foundation bolts, termination lugs for electrical connections as required, and all other sundry items which are useful and necessary for proper assembly and efficient working of the various components of the work shall be deemed to have been included in the Bid rates and prices, whether such items are specifically mentioned in the Bid documents or not.

4.0 Works to be done by the Contractor :-

Unless and otherwise mentioned in the Bid documents, the following works shall be done by the Contractor, and their cost shall be deemed to be included in the contract price:

- i. Foundations for equipment and components where required, including foundation bolts
- ii. Cutting and making good all damages caused during installation and restoring the same to their original finish
- iii. Sealing of all floor openings provided for pipes and cables, from fire safety point of view, after laying of the same
- iv. Painting at site of all exposed metal surfaces of the installation other than pre-painted items like fittings, fans, switchgear/ distribution gear items, cubicle switch board etc. damages during erection, shall however be rectified by the contractor.
- v. Testing and commissioning of complete installation

5.0 Completion Certificate by the licensed supervisor

On completion of the installation, a certificate shall be furnished to the Engineer-in-charge, by the Contractor, countersigned by the licensed supervisor under whose direct supervision the installation was carried out. This Certificate shall be in the prescribed form as required by the local authority. On the basis of this certificate, the Contractor shall arrange for inspection of installation by the concerned local authorities.

6.0 Completion Drawings

On completion of the work, the Contractor shall at his own cost submit to the Engineer-in-charge / Consultant 4 (four) sets of layout drawings drawn at the approved scale indicating the installation. These drawings shall clearly indicate the complete plant layouts, and piping layouts, location wiring, exact location of all the concealed piping, valves, controls, wiring and other services. The Contractor shall also submit 4 (four) sets of consolidated control diagrams, technical literature on all automatic controls and complete technical literature on all equipment and materials. The Contractor shall mount a set of all consolidated control diagrams and all piping diagrams in a frame with glass, and display in the plant room

7.0 Interrelationship of Services

The Contractor shall keep a check at all stages and supervise at the point of connection the associated civil, HVAC, electrical and plumbing works like underground and overhead tanks, power supply and installation of makeup water connection, drain connection in the fire fighting tanks and vicinity of plant room etc. In case of any discrepancy the same should be brought into the knowledge of Engineer-in-charge / Consultant in writing, all

rectifications etc, required in future as a result of failure on the part of the contractor to do so, shall be carried out by the Contractor at his own expenses.

8.0 Check List

The Contractor shall provide to the Engineer-in-charge / Consultant 4 (four) copies of a comprehensive maintenance checklist and shall place a copy of it in the Plant Room. The checklist shall be a list of each piece of equipment in this Contract, and shall provide a space for record of maintenance provided and status of various equipment during the maintenance period. This list shall be updated every month at the time of inspection. The Contractor shall certify on this check list that he has examined each piece of equipment and that; it is operating as intended in the contract.

9.0 Repairs

All equipment that requires repairing shall be immediately serviced and repaired during the maintenance period. All spares/parts and labours shall be furnished by the contractor free of cost.

10.0 Control System

During the maintenance period, the Contractor shall monthly check all controls in various areas to ensure that these are functioning satisfactorily. This shall apply to all pressure switches and pressure gauges, contacts, relays, controller switches, high and low pressure cut-outs etc.

11.0 Reference Points

Contractor shall provide permanent bench marks, flag tops and other reference points in consultation with Engineer-in-charge/Consultant for the proper execution of work and these shall be preserved till the completion of the work.

12.0 Licenses and Permits

- i. **Contractor** or the approved specialised agency engaged by them shall hold a valid plumbing, electrical, HVAC, Lifts, license issued by the Competent Authority under whose jurisdiction the work falls.
- ii. The contractor has to take all the approvals of local bodies for all the addition/deletion over the approved building plans which are to be given by the Engineer-in-charge/Consultant. The documents/drawings to be prepared and submitted in the manner desired by them after the same is approved by Engineer-in-charge /**Consultant**. Contractor has to take approvals of entire/Part works if required before start of works. Contractor will be responsible for any work at site carried out without approval of municipal or local bodies.
- iii. Contractor shall keep constant liaison with the competent Municipal or other authority and obtain approvals for all drainage and water supply works carried out by him.
- iv. Contractor shall obtain from the competent Municipal Authority completion certificates with respect to his work as required for occupation of the building.
- v. Any fees in connection with obtaining the approvals on behalf of the Client from the statutory bodies/Corporations/Government departments, etc. shall be paid by the Contractor and the same shall be reimbursed on production of original vouchers. Necessary endorsement / application if required shall be arranged from the Engineer-in-charge/Consultant/Client.
- vi. Before undertaking of works for HVAC, Lifts, Electrical, Anti Termite Treatment, Water

proofing, Fire Fighting, Fire alarm system, PA system, EPABX System, Horticulture Works etc., the contractor must take approval of specialised agencies proposed to be engaged by him from Engineer-in-charge/Consultant.

13.0 Cutting of structural members

No structural member shall be chased or cut without the written permission of the Engineer-in- Charge/Consultant.

14.0 Operation and Running of entire system

The contractor shall ensure smooth operation & running of entire sanitary, HVAC , Lifts, plumbing and fire fighting system including pumps and RO plant, solar water heating system etc. for a minimum period of one month after satisfactory completion of work as desired by Engineer. Cost of such operation & running of entire system including required material e.g. fuel, consumables, tools & tackles, requisite manpower etc. shall be borne by the contractor & deemed to be included in the contract price , nothing shall be paid on this account.

15.0 Regulations and Standards

The installations shall conform in all respects to Indian Standard Code of Practice for Electrical Wiring Installation IS: 732-1989 and as per latest CPWD General Specification for Electrical Works as mentioned in Schedule "F" of General Conditions of Contract. It shall also be in conformity with the current Indian Electricity Rules and regulations in so far as these are applicable to the installations. Wherever these Additional Specific Conditions call for a higher standard of material and/or workmanship than those required by any of the above regulations, then this Additional Specific Conditions shall take precedence over the said Regulation and Standards. External works & fire detection & alarm system works to be done as per CPWD specification & relevant BIS codes.

16.0 Tools for Handling and Erection

All tools and tackles required for handling of equipments and materials at Site of work as well as for their assembly and erection and also necessary test instruments shall be the responsibility of the Contractor.

17.0 Drawings

The drawings indicate the extent and general arrangements of the fixtures, controlling switches, wiring system etc. and are essentially diagrammatic explanation. The drawings indicate the points of termination of conduit runs and broadly suggest the routes to be followed. The Contractor shall submit six sets of working electrical drawings based on tender drawing including reflected ceiling plan coordinating other essential building services for the Engineer-in-charge / Consultant's approval. Contractor has to make necessary changes if any as per comments given by Engineer-in-charge /Consultant before execution. The work shall be executed as indicated in the approved drawings, however any minor changes found essential to co-ordinate the installation of this work with the other trades shall be made in consultation with the Engineer-in-charge/Consultant.

The drawings are for guidance of the contractor and exact locations, distance and levels shall be governed by the building. The Contractor shall examine all architectural, structural, plumbing and sanitary & electrical drawings before starting the work any discrepancies noticed shall be reported to the Engineer-in-charge / Consultant for clarification. In case of failure to do so Contractor shall not be entitled to any cost for omissions or defects in electrical drawings due to any conflict with other services work.

18.0 Conduit/ Trunking Layout

Prior to the laying of the conduits and trunking, the Contractor shall examine/ study drawings and report to Engineer-in-charge/Consultant .If he desires to make any changes from Engineer-in-charge /Consultant proposed conduit layout plan and shall get the same approved from Engineer-in-charge /Consultant .

19.0 Shop Drawings

The Contractor shall prepare and submit to the Engineer-in-charge/Consultant for his approval detail shop drawings for Main & Sub Panels / Distribution Boards, Distribution Boards, special pull boxes, light & fan switch boards, telephone distribution boards, FDA system and lightning protection system and other equipment to be procured/ fabrication by the Contractor before 15 days of placing of the orders with manufacturers/suppliers.

20.0 Manufacturer's Instruction

Manufacturer instructions for approved products shall be followed in consultation with Engineer-in-charge/Consultant.

21.0 Materials & Equipment

All materials and equipment shall be ISI marked and shall be of the make and design approved by the Engineer-in-charge/Consultant . Unless otherwise called for, only the best Grade of materials and equipment shall be used. The Contractor shall be responsible for the safe custody of all materials and equipment till these are taken over by client and shall insure them against theft, damage by fire, earth quake etc. A list of items of materials and equipment, together with a sample of each shall be submitted to the Engineer-in-charge/Consultant for his approval and shall be kept in the sample box.

22.0 Scale

All drawings shall be prepared to the scale as required for proper explanation and shall indicate the size and location of all equipments and accessories therein. The Contractor shall follow all dimensions of approved architectural drawings for the work or part concerned and check proposed drawings for any interference with the building structure or other equipment or services.

23.0 Brochures and Data

The Contractor shall submit four copies of all brochures / manufacturer's description data, operation manuals with internal complete circuit diagrams and other similar literature while obtaining the approval of product Engineer-in-charge/Consultant.

24.0 Approval of Shop Drawings

The approval of shop drawings, schedule, brochures etc. by Engineer-in-charge / Consultant shall be an approval of general details and arrangements only and shall not relieve the Contractor from responsibility for any deviation from drawings or specifications unless he has in writing informed by Engineer-in-charge/Consultant of such deviations at the time of submission of the drawings nor shall it relieve the Contractor from any responsibility for errors or omissions of any kind in the shop drawings.

25.0 Samples & Catalogues

Contractor shall submit the samples & catalogue of the material, which are proposed to be used at Site as per the approved makes for obtaining approval of the by Engineer-in-charge/Consultant.

26.0 Approval of Materials

All materials used on the Works shall be new and of the best quality available, conforming to the relevant specifications. Prior approval shall be obtained in writing from the by Engineer-in-charge/Consultant for all materials proposed and when approved, sample shall be duly identified and labelled, it shall be deposited with the by Engineer-in-charge/Consultant and shall be kept in the sample's room at Site.

27.0 Inspection, Testing and Inspection Certificate

1. The Engineer-in-charge /Consultant and their authorised representative shall have at all reasonable times access to the Contractor's premises or Works and shall be at liberty to inspect and examine the materials and workmanship during its manufacture or erection even when they are being manufactured or assembled at other premises.
2. The Contractor shall arrange all the materials and labour required for inspection of equipment or for any testing to be carried out at his/ manufacturer's works or at Site. Notice for such inspection/ presence for testing shall be given to the Engineer-in-charge / Consultant by the Contractor at least fifteen (15) days in advance together with the routine test certificates of the equipments/ materials given by the manufacturer.
3. Notwithstanding approval of tests or equipment by the by Engineer-in-charge/ Consultant, the Contractor shall be required to perform site tests and prove the correctness of ratings and performance of equipment / machinery and materials supplied and installed by the Contractor as per the Contract specifications and conditions. The Engineer-in-charge / Consultant shall also have the power to order the material or work to be tested by an independent agency at the Contractor's expense in order to prove soundness & adequacy.

28.0 Schedule & Manner of Operation

Time being the essence of this Contract, Contractor shall arrange for all required labour & material in sufficient quantities and at appropriate time, execute as per schedule for execution of work to meet the contract period requirement and so manage the operations that the work shall be completed in time as provided in the contract.

29.0 Performance Guarantee Certificates for Equipment

All equipment shall be guaranteed against unsatisfactory performance and/or break down for a minimum period of 12 (Twelve) months from the date of handing over of complete work to the by Client/ Engineer-in-charge/Consultant. The equipment or component or any other part of installation so found defective within the guarantee period shall be replaced / repaired by the Contractor free of cost to the satisfaction of the Client / Engineer-in-charge/Consultant. The above guarantee and/ or warrantee provided by the manufacturer will be submitted along with all the test certificates from manufacturer to Engineer-in-charge/Consultant.

30.0 Conformity with Statutory Acts, Rules and Standards

1. All installations shall be in conformity with the Bye-laws, Regulations and Standards of the local authorities applicable them. But if the specifications and drawings call for a higher standard of material and/or workmanship than those required by any of the above Regulations and Standards, then the specifications and drawings provided in the contract shall take precedence over the said regulations and standards.
2. However, if the drawings or specifications required something which violates the Bye-laws and Regulations, then the Bye-laws and Regulations shall govern the requirement of this installation.

3. Indian Electricity Act and Rules: All electrical works in connection with installations of the system shall be carried out in accordance with the provision of the Indian Electricity Act, 1910 and the Indian Electricity Rules 1956, both amended up to date.
4. CPWD Specification: as at Schedule "F" of GCC.
5. Indian Standards: The system / components shall conform to relevant BIS wherever they exist and to the National Building Code-2005 with latest amendments / addendums.
6. Nothing in these specifications shall be construed to relieve the Contractor of his responsibility for the design, manufacture and installation of the equipment with all its accessories in accordance with applicable Statutory Regulations and safety codes in force.

31.0 Completion Drawings (As Built Drawings)

1. On completion of the work and before issue of certificate of virtual completion, the Contractor shall submit to the Client/Engineer-in-charge/Consultant, completion plan drawn to a scale in the manner decided by him including the under mentioned details along with one set of computer CD containing the data.
 - a. Run and size of conduits, inspection boxes, junction boxes and pulls boxes
 - b. Number of circuits in each conduit
 - c. Location and rating of sockets and switches controlling the light and power outlets
 - d. Location and details of main & sub distribution boards, distribution boards indicating the circuit number controlled by them
 - e. Type of fitting viz. fluorescent, pendants, brackets, bulkhead etc., including their rating & type of lamp, fans and exhaust fans
 - f. A complete wiring diagram as installed and schematic drawings showing all connections for the complete electrical system
 - g. Location of telephone outlets, junction boxes and sizes of various conduits and number & sizes of wire drawn
 - h. Layout of telephone cables
 - i. Location of all earthing stations, route and size of all earthing conductors, manholes etc.
 - j. Layout and particulars of cables & sub mains.
 - k. Schematic drawing for telephone system
 - l. Layout of conduits for computer outlet points
 - m. Layout and details of lightning protection system.
 - n. Insulation tests and earth test results

32.0 Checking of BOQ Quantities

All quantities indicated in BOQ are tentative which may vary as per site conditions. Contractor has to verify quantities before procuring the materials. No payment shall be payable for quantity brought to site but not used.

33.0 Terms of Payment

- A. For items covered by CPWD Specifications (Part-IV -Sub Station -2007 & Part-VII -DG Sets-2006) as given below:
 - i. 85% after initial inspection and delivery at site in good condition on pro-rata basis.
 - ii. 10% after completion of installation in all respects.
 - iii. Balance 5% will be paid after testing, commissioning and handing over to the client/HLL for beneficial use.

- B. For other items not covered in the above CPWD Specifications, payment shall be made as per GCC.

34.0 Training of Personnel

The Contractor shall arrange for training of the Client's personnel prior to provisional take over of the project for the following:

- a. Telephone Exchange
- b. All other Equipment like pumps, panels etc.
- c. Adjustment of setting for controls and protective devices
- d. Preventive maintenance
- e. Operation of all electrical panels including their interconnectivity and interlocking scheme
- f. Hot Water Boiler
- g. Any other specialized system as executed under this contract

35.0 Completion Certificate

1. On completion of the installation, a certificate shall be submitted to the Engineer-in-charge /Consultant by the Contractor which shall be countersigned by the agency under whose direct supervision the installation was carried out. This certificate shall be in the prescribed form as required by the local authority. On the basis of this certificate, the Contractor shall arrange for inspection of installation by the concerned local authorities.
2. The Contractor shall be responsible at his own cost for getting the installation duly approved by the authorities concerned.

36.0 Check List

The Contractor shall provide to the Client/ Engineer-in-charge/ Consultant, 4(four) copies of a comprehensive maintenance checklist and shall paste a copy of it in the Substations & Plant Room. The checklist shall be a list of each piece of equipment in this Contract, and shall provide a space for each of the next fifty-two weeks to record the maintenance results and status of various equipment each month i.e. at the time of inspection. The Contractor shall certify on this check list that he has examined each piece of equipment and that, in his opinion, it is operating as intended by the manufacturer, and that all necessary tests have been performed.

37.0 Repairs

All equipment that requires repairing shall be immediately serviced and repaired during the defect liability period. All parts and labours shall be furnished free of cost to the client.

38.0 Safe Custody and Storage

Safe custody of all machinery and equipment dismantled, shifted & supplied by the Contractor shall be his own responsibility till the final taking over by the Client/Engineer-in-charge/ Consultant. The Contractor should, therefore, employ sufficient staff for watch and ward at his own expenses. Client/Engineer-in-charge/Consultant may, however, allow the Contractor to use the building space for temporary storage of such equipment, if such space is available.

39.0 Testing and Commissioning

The Contractor shall pay for and arrange without any cost to the Engineer-in-charge / Consultant, all necessary balancing and testing equipment, instruments, materials,

accessories, power, water, fuel and the requisite labour for testing. Any defects in materials and/ or in workmanship detected in the course of testing shall be rectified by the Contractor entirely at his own cost, to the satisfaction of the Engineer-in-charge/Consultant. The installation shall be retested after rectification of defects and shall be commissioned only after approval by the Engineer-in-charge /Consultant. All tests shall be carried out in the presence of the Engineer-in-charge /Consultant or his representative.

40.0 Operation and Running of entire system

The contractor shall pay for and arrange for operation & running of entire electrical system and other equipment for a minimum period of one month after satisfactory completion of work as desired by Engineer-in-charge/ Consultant. Cost of operation & running of entire system including required material e.g. water, electricity consumables, tools & tackles, requisite manpower etc. shall be deemed to be included in the contract price and nothing extra shall be paid.

41.0 Layout of all services, operating and maintenance instructions. DO's and Don'ts's etc for all the plant rooms, pump room, control panels etc must be equipped with coloured layout of services for the each floor. Operation and maintenance manual of the respective services, Do's and don'ts's for all the plants, machinery & services to be installed with every individual units.

SECTION- 3

TECHNICAL SPECIFICATIONS

CHAPTER A

A BRIEF OF REQUIREMENT OF THE WORK:

1. General Scope of Work :

The scope of proposed work consists of Construction of Balance Building Works for Setting up of Residential Complex at AIIMS, Rishikesh (UK).

2. The following are the salient features of the Works:

Present Stage: - The work for setting up of residential complex at AIIMS Rishikesh was awarded to M/s CRS Infra Projects Limited, New Delhi, which has since been rescinded. The contractor had executed major parts of Building Works.

Present Scope of work:- The scope of work includes the balance building works of the residential complex of AIIMS at Rishikesh, Uttrakhand, which comprises of:

I. Nurses Hostel

The balance buildings works in respect of above building are as per BOQ and additional works, if any, as per the directions of the Engineer-in-charge.

3. Appointment of agencies for execution of works :

Contractor shall submit credentials of the agencies proposed to be engaged by him/ them for execution of specialised works to the Client / HLL. Particular agency shall be approved by Client/ HLL and only such agencies shall be allowed to execute the work on behalf of the contractor.

Latest CPWD Specifications for Civil, Electrical and all other works with up to date correction slips for all sub heads of work as applicable, and, Technical Specifications included in the tender documents, wherever applicable.

4. The work shall in general conform to the Latest CPWD Specifications for Civil, Electrical and all other works with up to date correction slips for all sub heads of work as applicable, and, Technical Specifications included in the tender documents, wherever applicable. Wherever any aspect of design / construction / material standards is not covered under the above mentioned specification, relevant standards shall be referred to in the order of precedence which shall be as follows. In the case of discrepancy between the Schedule of Quantities, the Specifications and /or the Drawings, the following order of preference shall be observed –

- a. Description of Schedule of Quantities
- b. Particular specification and Specific Condition, if any.
- c. Drawings
- d. CPWD Specifications
- e. Indian Standard Specifications of BIS/ NBC/ IRC/ BS/ ASTM/ DIN

CHAPTER B

TECHNICAL SPECIFICATIONS AND CONDITIONS- CIVIL WORKS

1. EARTH WORK: As per relevant CPWD specifications.

Irrespective of the stipulations in the relevant CPWD Specifications, any surplus excavated earth which is beyond the requirement it shall be disposed of by the contractor at his own cost to the place as permitted by the local authority after obtaining written permission of the Engineer – in-charge and no payment will be made by the Department for disposal of this surplus excavated earth. Also the Contractor shall, at his own expense and without extra charges, make provision for all shoring, pumping, dredging or bailing out water, encountered from any sources such as rains, floods, springs, subsoil water table being high or due to any other cause whatsoever. The foundation trenches shall be kept free from water while all the works below ground level are in progress without any extra payment. Filling in plinth shall be consolidated with water and compacted with pneumatic rammers, to achieve 90% relative density on testing. One test is to be carried out for 1000 sq.ms. of compacted area.

2. PLAIN CEMENT CONCRETE AND REINFORCED CEMENT CONCRETE WORK:

a. STONE AGGREGATE:

- i. Stone aggregate used in the work shall be of hard broken stone to be obtained from approved source (Quarries to be approved by the Engineer in charge) and shall conform to relevant provision in the Latest CPWD Specifications for works.

b. SAND

- i. Sand to be used for the work shall be of as specified in latest CPWD specifications. Sand shall be obtained from the source to be got approved by the Engineer-in-charge and washed, if required, with appropriate equipment to bring down the chemical, inorganic and organic impurities within the permissible limits as per the direction of the Engineer in charge. The same shall consist of hard siliceous materials.

Note: Where only one variety of sand is available the sand will be sieved for use in finishing work as directed by the Engineer – in – charge in order to obtain smooth surface and nothing extra will be paid on this account.

- ii. Nothing extra shall be paid for screening or washing the sand as prescribed above.

c. FLYASH

Flyash conforming to grade 1 of IS 3812 (Part 1) may be used as part replacement of OPC **provided** uniform blending with cement is ensured in accordance with clauses 5.2 and 5.2.1 of I.S.456-2000 in the items of BMC and RMC. However this shall not override the provisions of the respective items.

d. CENTERING SHUTTERING AND SCAFFOLDING:

- i. All Scaffolding centering for RCC shall be with properly designed system and brought to site well in advance so that the progress of the work is not hampered for non-availability of the same.
- ii. All shuttering for RCC work except soffits of slab shall be in water proof shuttering Ply. Shuttering for slab and soffits shall be in water proof shuttering ply or in good quality mild steel plates free of dents, bends or warping and rusting as approved by the Engineer in charge.
- iii. Contractor should deploy complete one set of shuttering materials for minimum one complete floor and the shuttering material for beam bottom shall be minimum for two complete floors.

e. REINFORCEMENT:

- i. TMT reinforcement steel shall be used shall be as per design and conforming to IS: 1786 pertaining to Fe 500D OR Fe 500D grade of steel.
- ii. TMT steel bars manufactured by main producers, as per list of makes, shall be allowed in the work. Contractor shall produce manufacturer Test Report for each dia and each lot Tests. Nothing extra will be paid for "straightening of bars" received from market in coils or with bends. All incidental charges of any kind whatsoever including cartage, storage, safe custody of materials, cutting and wastage etc. shall be borne by the contractor.
- iii. The actual average sectional weight for dia up to 10 mm shall be arrived at from one meter long samples (minimum 3 from each dia) taken from each lot of steel. The discretion of the Engineer – in – charge shall be final for the procedure to be followed for determining the average sectional weight of each lot. Quantity of each diameter of steel received at site of work each day will constitute the single lot for this purpose.
- iv. The weight of each lot of a particular diameter of 10mm and below shall be reckoned as the weight as per actual issue multiplied by a factor equal to the standard sectional weight of the particular diameter divided by the average sectional weight of the particular dia in a particular lot worked out as per above para. Adjustment for the steel shall be effected on the basis of the weight as modified above for quantity payable.
- v. Measurement of all diameters of steel be on linear basis and will be converted into weight on the basis of standard sectional weight coefficients given in relevant CPWD specifications mentioned in schedule 'F' of General Conditions of Contract.
- vi. Measurement of reinforcement shall be as per procedure described in the relevant CPWD specifications mentioned in schedule 'F' of General Conditions of Contract.

3. BRICK WORK

- a. Bricks used in the work shall be obtained from kilns to be got approved from the Engineer in charge and shall be best quality well burnt ground moulded bricks as available in the vicinity. They shall have a compressive strength of not less than 75 Kgs/sq.cm and an absorption percentage of not more than 15 (Fifteen) % of its dry weight when immersed in water for 24 hours. In all other respects they shall conform to the provision in Latest CPWD Specifications for works.
- b. Both the face of wall of thickness more than 23cm shall be kept in the proper plane. Walls of half brick thickness or less shall be measured separately and paid in sqm.
- c. Bricks wall beyond half brick thickness shall be measured in multiple of half brick (i.e.115mm) which shall be deemed to be inclusive of mortar joints. In all other respects they shall conform to the provision in relevant specifications of the work.
- d. For mortar, use of PP Cement shall be preferred.

4. CEMENT PLASTER: - The use of PPC Cement shall be preferred.**5. WOOD WORK:**

- a. Timber required for manufacture of chowkhats and shutters for doors, windows, ventilators, partitions etc shall be Forest Stewardship council (FSC) certified wood and it shall be seasoned and preservative treated.
- b. The moisture contents of the wood used in the work shall not be more than that stipulated in the relevant clause of Latest CPWD Specifications for works. The rate quoted for various items shall be inclusive of kiln seasoning and preservative treatment of wood. In all other

respects the wood used in the work shall conform to the provision in latest CPWD specification for works.

- c. The sample of species to be used shall be deposited by the contractor with the Engineer-in – charge before commencement of the work. The contractor shall produce cash voucher and certificate from standard kiln seasoning plant operator about the timber section to be used on the work having been kiln seasoned by them failing which it would not be so accepted as kiln seasoned.

d. Glass :-

- i. Transparent sheet glass (Float glass) conforming to IS 1761 – 1970 shall be used.
ii. Minimum thickness shall be governed as under, unless otherwise specified in the item.

AREA of Glazing	Max. Unsupported length	Thickness
For glazing area up to 0.5 sqm	120 cm	4 mm
For glazing area more than 0.5 sqm	120 cm	5.5 mm

- iii. Glazing for toilet and in fixed ventilators shall be of frosted type.

e. Shutters:-

- i. Factory made shutters, as specified shall be obtained from factories to be approved by the Engineer – in - charge and shall conform to IS 2202 (Part –I) 1977. The contractor shall inform well in advance to the Engineer – in – charge the name address of the factory from where the contractor intends to get the shutters manufactured.
ii. The contractor will place order for manufacture of shutters only after written approval of Engineer – in – charge in this regard is obtained. The contractor is bound to abide by the decision of the Engineer – in-charge. In case the factory already proposed by the contractor is not found competent to manufacture quality shutters, the Engineer – in – charge will recommend the name of another factory from the approved list.
iii. The contractor will also arrange stage wise inspection of the shutters at factory with the Engineer in charge or his subordinate authorized representatives. Contractor will have no claim, if the shutters brought at site are rejected by the Engineer in charge in part or in full lot due to bad workmanship / quality or damages caused during their shifting from factory to site. Such shutters will not be measured and paid and the contractor shall remove the same from the site of work within 7 days after the written instruction in this regards are issued by the Engineer in charge or his authorized representatives.

6. ALUMINIUM WORKS

- a. The scope of the work is the fabrication, supply and erection at site of all types of Aluminium glazed doors, windows and ventilators in accordance with the drawings and specifications.
b. The supply and erection will include all parts such as but not restricted to frames, tracks, guides, mullions, styles, rails, couplers, transoms, rails, plates glazing bars, glass, hinges, arrangement, spring catches, cord and pulley arrangements, spring catches, cord and pulley arrangements door closers floor springs etc., required for the whole work whether the parts/ items are individually and specifically referred to in the schedules/ specifications/drawings or not provided that the supply and installation of such parts can be inferred there from and are necessary to make the work complete, unless separate provision is made in the bills of quantities for supply to such parts/items.
c. The doors, windows, ventilators, will be fabricated to suit the finished clear openings in the building/structure which the tenderer will himself measure.

d. Materials:-

- i. The members will be made out of aluminum alloy corresponding to IS:733 and will consist of extruded sections and of other shapes, and to sized gauges as shown in the drawings/ described in accordance with the relevant IS codes. The members shall be chosen to provide strength/ stability and maximum resistance to wear and tear.
- ii. The Sections will be as per approved makes, extruded sections. As indicated in the drawings the tenderer should specifically mention which sections he is using.
- iii. The weight of sections and the corresponding catalogue numbers are mentioned. The IS specifications are to be strictly adhered.
- iv. The extruder using recycled materials may be preferred.
- v. The alloy of extruded aluminum should be BS or IS old HE9, Alcon 50 SWP. to this effect test certificate has to be provided for the extruder.

e. Finishing:

- i. The extruded aluminum section has to be mechanically finished to remove all scratches; extrusion marks etc and subsequently thoroughly cleared in all alkali baths prior to anodizing.
- ii. The polyester powder coating, if required as per item of work, shall be of desired shade with minimum average thickness to 50 microns or other shades as required and to this effect the tenderer must have to produce test certificate from authorized institutions Bureau of Indian Standard.
- iii. The polyester powder coated material should be properly wrapped in gummed tape before fabrication to avoid scratches during fabricated and erection shall be kept protected till handing over.

f. Fabrication:

- i. Before commencing the fabrication the contractor shall submit to the Engineer – in - charge for their approval detailed shop drawings, based on the Architects drawings and corresponding specification showing junctions, fittings, accessories such as hinges flush bolts, locks, latches, latching arrangements, peg stays, rotor arms, anodize pivots gaskets rubber packing door felts, mastic, sealant etc., including fixing and sealing arrangements . Type and method of scaffolding he intends to use, Fabrication is to be taken up only after approval by the Engineer – in - charge and in accordance with the approved drawings. Sections for fabrication of door/ window/ventilators etc shall be as per architectural drawings or as approved by the the Engineer – in - charge.
- ii. A sample of finished door / windows/ ventilator railing etc shall be fabricated as per the shop drawings approved by the Engineer – in - charge for final approval before under taking mass production/ fabrication,
- iii. The doors, window, ventilators and partitions shall as per thickness given in the BOQ item / specifications, Polyester Powder coating shall be as specified in the item specifications.
- iv. All materials shall conform to relevant IS. Codes and in the absence of IS code, they should correspond to the best engineering practice; decision of the the Engineer – in - charge shall be final and binding on the contractor.
- v. Fabrication shall be done true to the drawing/ sample approved and in correspondence to the finished openings at the site. All joints shall be mitered at the corners, true right

angles, and joints to be finished neatly to hairlines, with concealed fasteners, wherever possible joints shall be made in concealed locations.

- vi. All fabricated/finished items shall be packed and carted properly to site to prevent any damage in transit. On receipt at site they shall be carefully stacked in protected storage to avoid distortion/damage.
 - vii. Site installation shall be with concealed screws, self-tapping or other approved fasteners or may be by welding, due precautions shall be taken to avoid any distortion/discoloration /damage to the finished items.
 - viii. Wood work faces /parts coming in contact with masonry shall before shifting to the site be given a heavy coat of alkali resistance bitumen paint. Steel items coming in contact with other incompatible materials shall be given a thick coat of zinc chromate primer.
- g. Glazing:** Glazing shall be done with flawless sheet glass of best approved quality without waviness, distortion, coloration / discoloration, of specified thickness in sizes as shown in the drawings, fixed as required with special glazing clips, putty, neoprene/PVC gaskets. All glass shall be cleaned thoroughly before they are fixed in position. Unless otherwise specified the minimum thickness shall be 5.5 mm thick.

7. FLOORING:

- a. The flooring in the building shall be as per the approved floor finish drawings and laid in such a way that limits in floor levels would not exceed the limits provided in the latest CPWD specifications or manufactures specifications.
- b. Wherever Vitrified Tile flooring is done, it shall be with multy grade/range 1st Quality tiles.
- c. Slope in floors shall be provided as per architectural drawings, else the levels at any place when checked over a distance of one meters in any direction should not show variation in floor level more than 3 mm.
- d. Rate for the items of flooring is inclusive of provision of sunken flooring and finishing edges of the same in bath kitchen, toilets, cutting holes for traps/ pipes etc., and nothing extra shall be paid on this account unless otherwise specified.

- 8. WATER PROOFING TREATMENT:** All the items for water proofing treatment with cement based water proofing treatment for roof slab and sunken portion in schedule of quantities shall be guaranteed for TEN YEARS the case of cement based treatment by the contractor as per Performa prescribed. The water proofing treatment work should be got done through specialized agency approved by EIC.

9. INTEGRAL CEMENT BASED WATER PROOFING TREATMENT FOR ROOF /SUNKEN FLOORS OF W.C'S ETC.

- a. The proprietary water proofing compound shall conform to I.S.2645 – 1975 in cement based water proofing treatment, stone aggregate shall be used instead of brick aggregate without any extra cost wherever required by the Engineer in – charge.
- b. The finished surface after water proofing treatment shall have required slope.
- c. While treatment of sunken floors is done it shall be ensured that the 'S' or 'P' traps as the case may be have been fixed / eased and rounded off properly the work shall be carried out as per relevant CPWD specifications.
- d. **GURANTEE:** The above water proofing, treatment shall be guaranteed for TEN YEARS against any leakage etc. the contractor shall have to execute a bond, 10 % of cost of items executed for water proofing shall be retained for 10 years as security (Refer GCC provisions)

10. SAMPLES OF MATERIALS:

- a. Sample of all materials/ fittings and fixture to be used in the work such as doors, windows, tiles, sanitary, water supply, drainage fittings and fixtures shall be submitted well in advance by the contractor for approval from the Engineer-in charge of work in writing before placing orders for the entire quantity required for completion of work. Samples approved by the EIC/Client shall be kept in **Sample Room under the charge of EIC** and shall retain till completion of work.
- b. Finished items in respect of typical portion of works of repetitive nature such as typical room, toilet, railing, door, window or any other work desired by the engineer-in- charge shall be prepared by the contractor to the satisfaction of Engineer-in – charge and got approved from him in writing before the commencement of these items for the entire work.
- c. The requirements for preparation of samples shall be observed and fulfilled by the contractor well in advance to avoid any detriment to the general progress of work. In other words, this will not be allowed to have any effects on the general progress of work or on any of the terms and conditions of the contract. No claims of any kind whatsoever including the claims of extension of time will be entertained due to the incorporation of this requirement.

11. VARIATION IN CONSUMPTION OF MATERIALS: The **variation** in consumption of material shall be governed as per CPWD specification and clauses of the contract to the extent applicable.

12. MISCELLANEOUS: - Materials manufacture by reputed firms and approved by Engineer – in charge shall only be used. Only articles classified as “First Quality” by the manufactures shall be used unless otherwise specified. Preference shall be given to those articles which bear ISI certification marks. In case articles bearing ISI certification marks are not available the quality of sample brought by the contractor shall be judged by the standards laid down in the latest CPWD specifications. For items not covered by the latest CPWD specification, relevant ISI standards shall apply.

13. TESTS:

- a. Materials brought at site of work shall not be used in the work before getting satisfactory test results for Mandatory tests as per relevant provisions in Latest CPWD Specifications for works. Normally, part rate payment shall be allowed in the running account bills only if the materials are tested and test results are found to be satisfactory to by the Engineer-in-charge. These tests shall be got done from laboratories pproved by Engineer-in - charge or the laboratory set up by the contractor at site as per directions of Engineer-in - charge.
- b. The Engineer-in - charge of work shall check the test results and satisfy himself before allowing any payment in the running /final bill.

CHAPTER C

TECHNICAL SPECIFICATIONS PLUMBING & SANITARY WORKS

PART 1: GENERAL REQUIREMENT

1. Scope of work

The work shall in general conform to the Latest CPWD Specifications for works as mentioned in Schedule 'F' of the GCC. Work under this Contract shall consist of furnishing all labour, materials, equipment and appliances necessary and required. The Contractor is required to completely furnish all the plumbing and other specialized services as described hereinafter and as specified in the schedule of quantities and/or shown on the plumbing drawings.

PART 2: PLUMBING FIXTURES

1. Scope of work

- a. Work under this Part shall consist of furnishing all materials & labour necessary and required to completely install all sanitary fixtures, chromium plated fittings and accessories as required by the drawings and specified in the Bill of Quantities.
- b. Without restricting to the generality of the foregoing the sanitary fixtures shall include the following:-
 - i. Sanitary fixtures
 - ii. Bath tubs, shower trays
 - iii. Chromium plated fittings
 - iv. Porcelain or stainless steel sinks
 - v. Accessories e.g. towel rods, toilet paper holders, soap dish etc.
 - vi. Whether specifically mentioned or not, the rates quoted for the installation of the fixtures, appliances and accessories shall be provided with all fixing devices, nuts, bolts, screws, hangers, fasteners as required.
 - vii. All exposed pipes within toilets and near fixtures shall be chromium plated brass or copper unless otherwise specified.

2. General

- a. All sanitary fixtures, CP Fittings and CP/SS accessories shall be supplied at site of work as per manufacturers' standard supply.
- b. All fixtures and fittings shall be provided with all such accessories and fixing devices as are required to complete the item in working condition, even if the same is not specifically mentioned the Bill of Quantities, Specifications or shown on the drawings. The rate quoted will include all devices for proper fixing arrangement, nuts, bolts, screws and required connection pieces etc.
- c. Fixing screws shall be half round head stainless steel wood screws or bolts with Stainless Steel washers. Iron screws rust and will not be permitted.
- d. All fittings and fixtures shall be fixed in a neat workmanlike manner true to level and heights shown on the drawings and in accordance with the manufacturer's recommendations. Care shall be taken to fix all inlet and outlet pipes at correct positions. Faulty locations shall be made good and any damage to the finished floor, tiling or terrace shall be made good at Contractor's cost.

- e. Contractor shall provide poly-sulphide sealant appropriate for its use for all fixtures fixed near wall, marble core seal and edges.

3. Water Closets

a. Indian W.C.

- i. Indian W.C. shall be provided as per BOQ item.

b. European W.C.

- i. W.C. shall be any one of the following types:
 1. Wall hung wash down or single or double siphon type
 2. Each W.C. set shall be provided with an approved type of plastic/wooden seat of approved finish compatible and fitting appropriately with the WC set with rubber buffers and hinges. The WC seat shall be those approved and accepted for fixing on a particular type of WC.
 3. The seat shall be so fixed that it remains absolutely stationary in vertical position without falling down on the W.C.
 4. The edge between the fixture and the wall shall be sealed with approved type of poly-sulphide sealant.

4. Wash Basins

- a. Wash basins shall wall mounted type or for under over/counter installation as specified in the BOQ.
- b. Each basin shall be supported on **MS galvanized** or painted C.I. brackets and the basin securely fixed to wall or under/above counter installation. The design of the brackets shall suit the basin selected and as recommended by the manufacturer.
- c. Each basin shall be provided with 32 mm dia. C.P. waste with overflow/ pop-up or standard waste with rubber plug and chain, 32 mm dia. C.P. brass bottle trap with CP pipe to wall and flange as specified in the BOQ.
- d. Each basin shall be provided with a single tap a hot & cold CP mixer with or without pop up waste fittings, 32 mm dia. CP cast brass bottle trap with outlet pipe and wall flange.
- e. The edge between the fixture and the wall or the counter shall be sealed with approved type of poly-sulphide sealant
- f. Washbasins shall be fixed at proper heights as shown on drawings. If height is not specified, the rim level shall be 79 cm or as directed by Engineer-in-charge.
- g. Each washbasin connection (separately for hot and cold) shall be provided with angle valves with CP wall flange and CP connecting pipe and of required length.

5. Sinks

- a. Sinks used shall be of any of the following types:
- b. For kitchens, pantries, and designated utility rooms the sinks shall be stainless steel sinks with or without drain boards.
- c. Each sink shall be supported by **MS galvanized** or painted C.I. brackets and clips and the basin securely fixed to wall or on the counter. The design of the brackets shall suit the basin selected and as recommended by the manufacturer.

- d. Stainless steel sinks shall be provided with 40 mm dia. C.P. basket waste with plug (as supplied by manufacturer), 40 mm dia. C.P. brass "P" trap with CP pipe to wall and flange.
- e. Each sink shall be provided with hot & cold CP mixer with approved type of a neck spout or individual taps as directed by the Project Manager.

6. Shower set

- a. Shower set shall comprise of hot & cold water mixer, C.P. shower arm with wall flange and shower head adjustable type.
- b. Mixer shall be exposed type, single lever, concealed stop cocks with diverter and spout as selected by the Engineer-in-charge.

7. Accessories

- a. Accessories shall be of any of the following types:
 - i. Towel rails
 - ii. Towel rings
 - iii. Coat hooks
 - iv. Soap dispensers
 - v. Soap dishes
- b. Accessories shall be fixed with stainless steel half round head screws and cup washers in wall with rawl plugs or nylon sleeves and shall include cutting and making good.
- c. Porcelain accessories shall be fixed in walls and set in cement mortar 1:2 (1 cement: 2 coarse sand) and fixed in relation to the tiling work. The flange of the recessed fixture shall cover the recess in the wall fully.

8. Measurement & Rates

- a. Sanitary fixtures shall be measured by numbers or as specified in BOQ.
- b. Rates for all items mentioned above shall be inclusive of cutting holes and chases and making good the same, stainless steel screws, nuts, bolts, fastener and any fixing arrangements required and recommended by manufacturers, testing and commissioning.

PART 3: Soils, Waste, Vent & Rainwater Pipes & Fittings

1. Scope of work

- a. Work under this Part shall consist of furnishing all labour, materials, equipment's and appliances necessary and required to completely install all soil, waste, vent and rainwater pipes and fittings as required by the drawings, and given in the Schedule of Quantities.
- b. Without restricting to the generality of the foregoing, the system shall include the following:-
 - i. Vertical and horizontal soil, waste, vent and rain water pipes, and fittings, joints, clamps and connections to fixtures.
 - ii. C.I. soil & uPVC rainwater pipes.
 - iii. Connection of all pipes to sewer lines as shown on the drawings at ground floor levels.
 - iv. Floor and urinal traps, cleanout plugs, inlet fittings and rainwater heads/Khurras.
 - v. Testing of all pipe lines.

2. General requirements

- a. All materials shall be new of the best quality conforming to specifications and subject to the approval of Engineer-in-charge.
- b. Pipes and fittings shall be fixed truly vertical, horizontal or in slopes as required in a neat workmanlike manner.
- c. Pipes shall be fixed in a manner as to provide easy accessibility for repair and maintenance and shall not cause obstruction in shafts, passages etc.
- d. Pipes shall be securely fixed to walls and ceilings by suitable clamps intervals specified.
- e. Access doors for fittings and cleanouts shall be so located that they are easily accessible for repair and maintenance.

3. Piping System

- a. Soil, Waste & Vent Pipes
 - i. The Soil & Waste pipe system above ground has been planned as a "two pipe system" as defined in BIS: having separate pipes for waste for kitchen sinks, showers, washbasins, Floor drains as approved by Engineer-in-charge.
 - ii. All waste water from pump rooms, floor channels in basements will be provided with a deep seal trap before connecting to the main drain or vertical stack.
 - iii. Vertical soil & waste stacks shall be connected to a common horizontal drain pipe at basement ceiling or to an external manhole directly where feasible and shown on the drawings.
 - iv. Floors of toilets, kitchens and other service areas located on structural slab are SUNK below the finished floor level (FFL).
- b. Rainwater Pipes
 - i. All terraces shall be drained by providing down-takes rainwater pipes.
 - ii. Rainwater pipes are separate and independent and connected to the storm water drainage system as shown on the drawings.
 - iii. Rainwater in enclosed courtyards shall be collected in catch-basins and connected to storm water harvesting chambers as shown in drawings..
 - iv. Any dry weather flow from waste appliances shall not be connected to the sewerage system.
- c. Balcony/Planter drainage
 - i. All balconies, terraces, planters and other formal landscape areas will be drained by vertical down takes as per the landscape/architectural drawings and details
- d. Cast iron pipes & fittings (for Soil, waste, anti-siphon age pipes)
 - i. All pipes shall be straight and smooth and inside free from irregular bore, blow holes, cracks and other manufacturing defects. Pipes shall be centrifugally spun iron soil pipes conforming to sand cast to I.S. 3989.
 - ii. Standard weight dimensions shall be as follows:-
 - a. Sand Cast Iron Pipes & Matching Fitting shall be in conformity to I.S. 1729
 - b. Centrifugally cast (spun) iron pipes and fittings in conformity to I.S. 3989
 - e. uPVC pipes & fittings (For Rain Water Pipes etc.)

- i. Where specified, Polythene pipes shall be uPVC pipes confirming to I.S: 4985-1988. The details of the nominal outer diameter, weight and working pressure shall be as per the standards, for the respective pressure rating as specified in the B.O.Q.
 - ii. Polythene pipes may be cold bending to a radius of not less than eight times of their external diameter. Pipes bent for smaller radius may be made by hot bending.
 - iii. Fittings used for Polythene pipes shall be compression moulded fittings matching to the above specifications.
- f. Jointing
- i. All Polythene pipes shall be Drip seal/ Sealant and jointed as per manufacturer's specifications and relevant I.S codes.
 - ii. All pipes shall be tested after installation for a pressure equal to twice the maximum working pressure in the line as per manufacturer's specifications.
- g. Fittings
1. Fittings shall conform to the same Indian Standard as for pipes. Pipes and fittings must be of matching IS Specification. Interchange of pipes of one standard with fittings on the other standard will not be permitted.
 2. Fittings shall be of the required degree of curvature with or without access door.
 3. Access door shall be made up with 3 mm thick insertion rubber washer and white lead. The bolts shall be lubricated with grease or white lead for easy removal later. The fixing shall be air and water tight.
- h. Fixing
1. All vertical pipes shall be fixed by galvanized structural support clamps truly vertical. Branch pipes shall be connected to the stack at the same angle as that of the fittings. No collars shall be used on vertical stacks. Each stack shall be terminated at top with a cowl (terminal guard).
 2. Horizontal pipes running along ceiling shall be fixed on galvanized structural adjustable clamps (Clevis clamps) of special design shown on the drawings or as directed. Horizontal pipes shall be laid to uniform slope and the clamps adjusted to the proper levels so that the pipes fully rest on them.
 3. Contractor shall provide all sleeves, openings, hangers, inserts during the construction. He shall provide all necessary information to the Project Manager/Building Contractor for making such provisions in the structure as necessary. All damages shall be made good to restore the surfaces.

4. Clamps

1. Holder bat clamps shall be of standard design and fabricated from galvanized M.S. standard flats 40x3 mm thick and 12 mm dia. GI Rod and 6 mm nuts and bolts. Holder bat clamps shall be fixed in cement concrete 1:2:4 mix blocks 10x10x10 cm deep.
2. Where holder bat clamps are to be fixed in RCC column or slotted angles, walls or beam they shall be fixed with galvanized 40x3 mm flat iron "U" type clamps with anchor fasteners of approved design or 6 mm nuts and bolts.

3. Structural clamps shall be fabricated by electro-welding from G.I. structural members e.g. rods, angles, channels flats as per detailed drawing. Contractor shall provide G.I. all nuts & bolts, welding material. All fabricated clamps, nuts, bolts and washers shall be hot dipped galvanized before using.
4. Galvanized slotted angle/ channel supports on walls shall be provided wherever shown on drawings. Angles/ channels shall be of sizes shown on drawings or specified in schedule of quantities. Angles/channels shall be fixed to brick walls with bolts embedded in cement concrete blocks and to RCC walls with suitable anchor fasteners. The spacing of support bolts horizontally shall not exceed 1 m.
5. Wherever G.I. clamps are required to be anchored directly to brick walls, concrete slabs, beams or columns, nothing extra shall be payable for clamping arrangement and making good with cement concrete 1 : 2 : 4 mix (1 cement : 2 coarse sand : 4 mm stone aggregate 20 mm nominal size) as directed by the Engineer-in-charge.
6. For sleeves, RCC cutting, hole, chasing etc. anchor fasteners and clamp spacing chart see Special Conditions.
7. All the clamping and supporting material are included in rates nothing to be paid extra in any head.

5. Traps

a. Floor traps

Floor traps shall be siphon type full bore P or S type cast iron having a minimum 50 mm deep seal. The trap and waste pipes shall be set in cement concrete blocks firmly supported on the structural floor. The blocks shall be in 1:2:4 mix (1 cement : 2 coarse sand : 4 stone aggregate 20 mm nominal size) and extended to 40 mm below finished floor level. Contractor shall provide all necessary shuttering and centring for the blocks. Size of the block shall be 30x30 cm of the required depth.

b. Urinal traps

Urinal traps/horn shall be cast iron P or S traps with or without vent and set in cement concrete block specified for floor traps.

c. Floor trap inlet

Bath room traps and connections shall ensure free and silent flow of discharging water. Where specified, Contractor shall provide a special type inlet fitting fabricated from G.I. pipe without, with one, two or three inlet sockets welded on side to connect the waste pipe. Joint between waste and hopper inlet socket shall be Drip Seal. Inlet shall be connected to a C.I. P or S trap. Floor trap inlet hoppers and the traps shall be set in cement concrete blocks as specified in para above without extra charge.

d. Gratings for traps

Floor and urinal traps shall be provided with 100-150mm square or round C.P./Stainless steel grating, with rim of approved design and shape. Minimum thickness shall be 4 mm or as specified in the Schedule of Quantities.

e. Jointing

Soil, waste vent, anti-syphonage and rainwater pipes shall be jointed with refined drip seal conforming to I.S. 27-1977ket. Sufficient skein of jute rope shall be

caulked to leave a minimum space for the Drip seal as given in Para 3.4.3 to be poured in. After the pouring the lead shall be caulked in to the joint with caulking tool and hammer.

6. Cleanout Plugs

a. Cleanout Plug on soil pipes

Clean out plug for Soil, Waste or Rainwater pipes laid under floors shall be provided near pipe junctions bends, tees, "Ys" and on straight runs at such intervals as required as per site conditions. Cleanout plugs shall terminate flush with the floor levels. They shall be threaded and provided with key holes for opening. Cleanout plugs shall be Cast Brass suitable for the Pipe dia. With screwed to a G.I. socket. The socket shall be Drip seal caulked to the drain pipes.

b. Cleanout Plug on Drainage Pipes

- i. Cleanout plugs shall be provided on starting point of each drain and in between at locations indicated on plans or directed by the Engineer-in-charge. Cleanout plugs shall be of size matching the full bore of the pipe but not exceeding 150 mm dia. Cleanout Plugs on drains of greater diameters shall be 150 mm dia. Fixed with a suitable reducing adapter.
- ii. Cleanout Plug at Ceiling Pipes: - Cleanouts provided at ceiling level pipe shall be fixed to a CI flanged tail piece. The cleanout doors shall be specially fabricated from light weight galvanised sheets and angles with hinged type doors with fly nuts, gasket etc., as per drawing.

7. Waste pipe from appliances

a. General

- i. Waste pipe from appliances e.g. washbasins, sinks and urinals shall be of heavy galvanized steel /CPVC as given in the Schedule of Quantities or shown on the drawings.
- ii. All pipes shall be fixed in gradient towards the outfalls of drains. Pipes inside a toilet room shall be in chase unless otherwise shown on drawings. Where required pipes may be run at ceiling level in suitable gradient and supported on galvanized structural clamps. Spacing for clamps for such pipes shall be as per good engineering practice approved by the Project Manager.

b. Galvanized pipes

Waste pipes from appliances shall be galvanized steel tubes conforming to I.S.1239 (Heavy class) and quality certificates shall be furnished. Pipes shall be provided with all required fittings e.g. tees, couplings, bends, elbows, unions, reducers, nipples, plugs. All G.I. waste pipes shall be terminated at the point of connection with the appliance with an outlet of suitable diameter. Pipes in chase shall be wrapped with bitumen tape and then painted with two coats of black bitumen paint. Exposed pipes with one coat of Zinc chromate with etch coating primer and two or more coats of synthetic enamel paint or as given in the Schedule of Quantities. Colour shall be as per the approved colour code.

8. Cast iron pipes for drainage

- a. All drainage lines passing under building, in exposed position above ground e.g. basement ceiling etc. shall be cast iron pipes. Position of such pipes shall generally be shown on the drawings.

- b. Cast iron pipes shall be spigot & socket (S&S) centrifugally spun iron pipes conforming to I.S. 1536. (Class LA). Quality certificates shall be furnished.
- c. Fittings: Fittings used for C.I. drainage pipe shall conform to I.S. 1538 (Heavy class). Wherever possible junction from branch pipes shall be made by a Y- tee.
- d. Joints
 - i. Joints between pipes shall be made with pre-moulded rubber joints (Tyton Joints) supplied by the manufacturer to ensure compatibility and water tightness.
 - ii. Joints between pipes and fittings shall be made by caulked spun yarn dipped in tar and molten drip seal 45 mm deep by hammering with caulking tools.

9. Encasing pipe in Cement Concrete

Cast iron soil and waste pipes under floor in sunken slabs and in wall chases (when cut specially for the pipe) shall be encased in cement concrete 1:2:4 mix (1 cement : 2 coarse sand : 4 stone aggregate 12 mm size) 75 mm in bed and all-round. When pipes are running well above the structural slab, the encased pipes shall be supported with suitable cement concrete pillars of required height at intervals of 1.8 m. Rate for concrete round pipes shall be inclusive of pillars, supports, shuttering and centring.

10. Painting

- a. All cast iron, soil, waste vent, anti-siphon age and rainwater pipes in exposed location in shafts and pipe spaces shall be painted with two or more coats of synthetic enamel paint to over a priming coat to give an even shade.
- b. Paint shall be of approved quality and shade. Where directed pipes shall be painted in accordance with approved pipe colour code.
- c. G.I. waste pipes in chase shall be painted with two coats of bitumen paint, covered with polythene tape and a final coat of bitumen paint. Exposed pipes shall be painted with two or more coats of synthetic enamel paint over each priming coat.
- d. C.I. soil and waste pipes below ground and covered in cement concrete or lead pipes shall not be painted.

11. Cutting and making good

- a. Pipes shall be fixed and tested as building proceeds.
- b. Contractor shall provide all necessary holes cut outs and chases in structural members as building work proceeds. Wherever holes are cut or left originally, they shall be made good with cement concrete 1:2:4 (1 cement: 2 coarse sand: 4 stone aggregate 20 mm nominal size) or brick work in cement mortar 1:2 (1 cement: 2 coarse sand) and the surface restored as in original condition.

12. Testing

- a. Testing procedure specified below apply to all soil, waste and vent pipes above ground including C.I. LA pipes laid in basement ceiling.
- b. Entire drainage system shall be tested for water tightness during and after completion of the installation. No portion of the system shall remain untested. Contractor must have adequate number of expandable rubber/bellow plugs, manometers, smoke testing machines, pipe and fitting work test benches and any

other equipment necessary and required to conduct the tests. All testing shall be certified for its calibration by an approved laboratory.

- c. All materials obtained and used on site must have manufacturer's hydraulic test certificate for each batch of materials used on the site. All testing equipment must be calibrated and shall carry certificate from an approved laboratory.
- d. Testing soil, waste and rainwater pipes
 - i. Apart from factory test all pipes and fittings shall be hydraulically tested for a head of 3 m preferably on a specially set up work bench. After applying pressure, strike the pipe with a wooden pallet and inspect for blow holes and cracks. Pressure may be applied for about 2 minutes. Reject and remove all defective pipes.
 - ii. After installation all connections from fixtures, vertical stacks and horizontal drains including C.I. LA pipes shall be tested to a hydraulic pressure not exceeding 3 m. Such tests shall be conducted for each floor separately by suitable plugs.
 - iii. The entire installation shall be tested by smoke testing machine. The test can be conducted after the plumbing fixtures are installed and all traps have water seal or by plugging all inlets by bellow plugs. Apply dense smoke keeping the top of stack open and observe for leakages. Rectify or replace defective sections.
 - iv. After the installation is fully complete, it should be tested by flushing the toilets, running at least 20% of all taps simultaneously and ensuring that the entire system is self-draining, has no leakages, blockages etc. Rectify and replace where required.
- e. Contractor shall maintain a test register identifying date and time of each area. All tests shall be conducted in presence of Engineer-in-charge and signed by both.

13. Measurements

- a. General
 - i. Rates for all items quoted shall be inclusive of all work and items given in the specifications and Schedule of Quantities.
 - ii. Rates are applicable for the work under floors, in shafts at ceiling level area for all heights and depths.
 - iii. Rates are inclusive of cutting holes and chases in RCC and masonry work and making good the same.
 - iv. Rates are inclusive of pre testing, on site testing, of the installations, materials and commissioning of the works.
 - v. Pipes (Unit of measurement, linear meter to the nearest Centimetre) or as specified in CPWD specifications.
- b. All C.I. Soil, waste, vent, anti-syphonage and rain water pipes shall be measured net when fixed correct to a centimetre including all fittings along its length. No allowance shall be made for the portions of pipe lengths entering the sockets of the adjacent pipes or fittings. The above will apply to both case i.e. whether pipes are fixed on wall face or pillars or embedded in masonry or pipes running at ceiling level.
- c. Pipes shall be measured per running metre correct to a centimetre for the finished work which shall include fittings e.g. bends, tees, elbows, reducers, crosses, sockets,

nipples and nuts. The length shall be taken along centre line of the pipes and fittings. All pipes and fittings shall be classified according to their diameter, method of jointing and fixing substance, quality, and finish. The diameters shall be nominal diameter of internal bore. The pipes shall be described as including all cutting and waste. In case of fittings of unequal bore, the largest bore shall be measured.

- d. Cement concrete around pipes shall be measured along the centre of the pipe line measured per linear metre and include any masonry supports, shuttering and centring cutting complete as described in the relevant specifications.
- e. Slotted angles/channels shall include support bolts, nuts and clamps embedded in masonry walls with cement concrete blocks and nothing extra will be paid for making good the same.
- f. Fittings

Unit of measurement shall be the number of pieces. Pipe fittings are included in the rate for pipes. Urinal traps, trap gratings, hoppers, cleanout plugs shall be measured by number per piece and shall include all items described in relevant specifications and Schedule of Quantities.
- g. Painting

Painting of pipes shall be measured per running metre and shall be inclusive of all fittings and clamps. No deduction for fittings shall be made.
- h. Excavation for soil pipes

No payment shall be admissible with respect to excavation, refilling and disposal of surplus earth for cast iron soil and waste pipes laid below ground, in sunken slabs.
- i. Engineer-in-charge's decision with respect to the correct interpretation regarding mode of measurement shall be final and binding on the contractor.

PART 4 Water Supply Systems

1. Scope of work

- a. Work under this part consists of furnishing all labour, materials equipment and appliances necessary and required to completely install the water supply system as required by the drawings, specified hereinafter and given in the Schedule of Quantities.
- b. Without restricting to the generality of the foregoing, the water supply system shall include the following:-
 - i. Rising main from water supply pumps to all overhead tanks.
 - ii. Distribution system from overhead tank to all fixtures and appliances for cold & hot water.
 - iii. Insulation to hot water pipes within toilets.
 - iv. Connections to all plumbing fixtures, and appliances.

2. General requirements

- a. All materials shall be new of the best quality conforming to specifications. All works executed shall be to the satisfaction of the Engineer-in-charge.
- b. Pipes and fittings shall be fixed truly vertical, horizontal or in slopes as required in a neat workmanlike manner.

- c. Short or long bends shall be used on all main pipe lines as far as possible. Use of elbows shall be restricted for short connections.
- d. As far as possible all bends shall be formed by means of a hydraulic pipe bending machine for pipes up to 25 mm dia. Bends and elbows may be used for pipe dia. greater than 32 mm.
- e. Pipes shall be fixed in a manner as to provide easy accessibility for repair and maintenance and shall not cause obstruction in shafts, passages etc.
- f. Pipes shall be securely fixed to walls and ceilings by suitable clamps at intervals approved by the Project Manager.
- g. Valves and other appurtenances shall be so located as to provide easy accessibility for operations, maintenance and repairs.

3. Water Supply System

- a. Contractor should study the site plan and water supply system diagram for overviews of the system.
- b. Source
 - i. Water supply will be acquired from Clients mains line (water report enclosed).
 - ii. The rising mains will be connected to the main fire static tank and then overflow into the main domestic water tank located in basement.
- c. Water supply piping for garden hydrant and sprinkler and irrigation system will be separate and independent connected to a different pumping system.

4. G.I/ CPVC Pipes & Fittings

- a. All pipe inside the building and where specified, outside the building shall be galvanized / CPCV steel tubes conforming to I.S. 1239 of class specified. When class is not specified they shall be heavy class.
- b. Fittings shall be malleable iron galvanized /CPCV of approved make. Each fitting shall have manufacturer's trade mark stamped on it. Fittings for G.I. /CPCV pipe shall include couplings, bends tees, reducers, nipples, union and bushes. Fittings shall conform to I.S. 1879-(Section I to X).
- c. Pipe and fittings shall be joined with screwed joints, after cutting a pipe with a hacksaw or a cutting machine care shall be taken to remove burr from the end of the pipe after reaming with a proper file.
- d. Pipe threaded joints will be made by applying suitable grade of TEFLON tape used for drinking water supply.(Use of red and white lead sutli will not be permitted for screwed joints)
- e. All pipes shall be fixed in accordance with layout and alignment shown on the drawings. Care shall be taken to avoid air pockets. G.I./CPCV pipes inside shall be fixed in wall chases well above the floor. No floor shall be run inside a sunken floor as far as possible. Pipes may be run under the ceiling or floors and other areas as shown on drawings.
- f. Clamps
 - i. G.I/CPCV pipes in the shaft and other locations shall be supported by galvanized M.S. clamps of design approved by Project Manager. Pipes in wall chases shall be anchored by G.I hooks. Pipes at ceiling level shall be supported on structural

clamps fabricated from G.I. Structural. Pipes in typical shaft shall be supported G.I. slotted angles / channels as per standard drawings.

- ii. Spacing of clamps, hooks etc. Shall be as per good engineering practice approved by the Engineer-in-charge

g. Unions

Contractor shall provide adequate number of unions on pipes 50mm and below to enable easy dismantling later when required .Unions shall be provided near each gunmetal valve , stop clock , or check valve and go on straight runs as necessary at appropriate locations as required and /or direct by Project Manager.

h. Flanges

- i. Flanged connections shall be provided on pipes 65 mm and above as required or where shown on the drawings generally as follows:

1. On straight runs not exceeding 30 m, near bends and at connections to main branch lines.
2. On all valves ends
3. On equipment /pump connections as necessary and required or as directed by Engineer – in - charge.

- ii. Flanged connections shall be made by the correct number and size of the bolts and made with 3 mm thick insertion neoprene gaskets Bolt hole dia. for flanges shall conform to match the specification for C.I. sluice valve to I.S. 780. and C.I. butterfly valve to IS: 13095.

i. Trenches

- i. All water supply pipes below ground shall be laid in trenches with a minimum cover of 60 cms. The width and depth of the trenches shall be as follows:-

Dia. of pipe	Width of trench	Depth of trench
15 mm to 50 mm	30 cm	75 cm
65 mm to 100 mm	45 cm	100 cm

ii. Sand filling

Where specified in the Schedule of Quantities all G.I. pipes in trenches shall be protected with fine sand 15 cm all around before filling in the trenches.

- j. Where shown on the drawings, main pipe lines may be run in masonry trenches from the pump house to the buildings in phase I & II , filled up with sand and buried in ground as per architectural /landscape details.

k. Painting

All pipes above ground shall be painted with one coat Zinc with each coating and two coats of synthetic enamel paint of approved shade and quality. Pipes shall be painted to standard colour code specified by Engineer-in-charge.

l. Pipe protection

- i. Where specified in the Schedule of Quantities all pipes in chase or below floor shall be protected against corrosion by the application of two coats of bitumen paint covered with bitumen tape and a final coat of bitumen paint before covering up the pipe.

- ii. All G.I. /CPVC water supply pipes below ground shall be protected against corrosion by applying one layer of 4 mm thick multilayer anticorrosive polymeric mix tape applied over a coat of primer as per recommendations of the manufacturers. (Pypcoat)

m. Insulation

Hot water pipes within a toilet /kitchen from hot water header shall be insulated with fire resistance closed cell chemically cross linked polyethylene is used in the forms of rolls, sheets and tubes. The thickness of insulation is 13mm on all sizes of pipes. Density of insulation is $30\pm 2\text{kg/cum}$.

5. Valves

a. Ball valves

- i. Valves 50 mm dia. and below shall be screwed type ball valves with stainless steel balls spindle Teflon seating and gland packing tested to a hydraulic pressure of 20 kg/cm^2 and accompanying couplings and steel handles to B.S. 5351.

b. Butterfly Valves

- i. Valves 65 mm dia. and above shall be cast iron butterfly valve to be used for isolation and /or flow regulation. Valves shall be bubble tight, resilient seated suitable for flow in either direction and seal in both direction and shall be provided with matching flanges with neoprene insertion gasket 3 mm thk. P.N 1.6
- ii. Butterfly valve shall be of best quality conforming to IS: 13095.

c. Non Return Valve

- i. Where specified non return valve (swing check type) shall be provided through which flow can occur in one direction only, It shall be single door swing check type of best quality conforming to IS: 5312.P.N1.6
- ii. Each butterfly and slim type swing check valves shall be provided with a pair of flanges screwed or welded to the main line and having the required number of galvanized nuts, bolts and double washers of correct length.
- iii. Sluice valve shall be of approved makes conforming to I.S.:780 of class as specified.

6. Storage Tanks

a. Overhead Tanks

Overhead water storage tanks for water supply shall be of reinforced cement concrete or PVC as per BOQ.

b. Tank connection and accessories

- i. Contractor shall provide the following to each tanks:
 1. Inlet and outlet connections to pumps, equipment and main pipe lines.
 2. Tank overflows with mosquito proof gratings
 3. Scour drain and valve as per drawings
 4. Water level gauge with approved type of brass gauges, plastic tube, a wooden board with level marking.
- ii. Electronic level controllers, cabling, sequence controllers and all related equipment shall be provided by agency executing the pumping system work.

Plumbing contractor shall provide necessary G.I. sleeves and co-operate with the contractor to ensure that the work is successfully executed.

7. Testing

- a. All pipes, fittings and valves, after fixing at site, shall be tested by hydrostatic pressure of 1.5 times the working pressure or 10 kg /cm² whichever is more. Pressure shall be maintained for a period of at least 12 hours without any drop & withstand for 8 hrs.
- b. A test register shall be maintained and all entries shall be counter-signed by Contractor(s) in the presence of Engineer-in-charge.
- c. In addition to the sectional testing carried out during the construction, Contractor shall test the entire installation after connections to the overhead tanks or pumping system or mains. He shall rectify all leakages and shall replace all defective materials in the system. Any damage done due to carelessness, open or burst pipes or failure of fittings, to the building, furniture and fixtures shall be made good by the Contractor during the defects liability period without any cost.
- d. After commissioning of the water supply system, Contractor shall test each valve by closing and opening it a number of times to observe if it is working efficiently. Valves which do not effectively operate shall be replaced by new ones at no extra cost and the same shall be tested as above.

8. Measurements

- a. G.I./CPVC pipes
 - i. G.I./CPVC pipes above ground shall be measured per linear metre (to the nearest cm) and shall be inclusive of all fittings e.g. couplings, tees, bends elbows, unions, and flanges. Deduction for valves shall be made. Rate quoted shall be inclusive of all fittings, clamps, cutting holes chases and making good the same and all items mentioned in the specifications and Schedule of Quantities.
 - ii. G.I./CPVC pipes below ground shall be measured per linear metre (to the nearest cm) and shall be inclusive of fittings, e.g. Couplings, tees, bends, elbows, unions, etc. Deduction for valves shall be made. Rates quoted shall be inclusive of all fittings, excavation, back filling and disposal of surplus earth, cutting holes and chases and making good and all other items mentioned in the specifications and Schedule of Quantities.
- b. Gunmetal, cast iron, butterfly and non-return valves puddle flanges, level indicators and meters shall be measured by numbers.
- c. Brick masonry chamber for valves and meters shall be measured by number and include all items given in the Bill of quantities.
- d. Painting/pipe protection

Painting/pipe protection for pipes shall be measured per linear metre over finished surface and shall include all valves and fittings for which no deduction shall be made.
- e. Project Manager's decision with respect to the correct interpretation regarding mode of measurement shall be final and binding on the contractor.

CHAPTER D

TECHNICAL SPECIFICATIONS FOR ELECTRICAL SERVICES- GENERAL REQUIREMENTS

1 GENERAL

To provide electrical system for the distribution of electric power from the point of supply to the utilization equipment, all as shown in the drawings and described in these specifications. The quantities mentioned in BOQ are tentative. It will be the bidder's responsibility to work out the exact quantities from drawings or from work site, which trade provides said equipment, materials, tools and labour.

2 SCOPE

The bidder shall supply, install and commission along with requisite spare, maintenance tools and tackles the following equipment and system in the Project. The scope also covers the detailed engineering and calculations of the various equipment/system mentioned hereunder and the same shall be approved by the Consultant/Architect prior to execution of the job.

- Medium voltage switchgear.
- Earthing.
- Lightning protection system.
- Laying and termination of L.T. cables.
- Rising Main / Distribution Boards / Sub-Distribution Board.
- Complete internal building wiring as per specification.

This specification defines the basic guidelines to develop a suitable electrical system as necessary for the complex. All data required in this regard shall be taken into consideration to develop a detailed engineering of the system. Site conditions as applicable are mentioned elsewhere.

Compliance with these specifications and/or approval of any of the Contractor's documents shall in no case relieve the Contractor of his contractual obligations.

All work to be performed and supplies shall be affected as a part of contract requires specific approval/review of Owner or his authorised representative. Major activities requiring approval/review shall include but not be limited to the following:

The engineering activities shall comprise the submission for approval of the following, as required:

- Basic engineering documents e.g. overall single line diagram, area classification drawing, overall cable layout, testing, type test report, guaranteed particulars of all equipment and maintenance manuals.
- Quality assurance procedures.

- Field testing and commissioning procedures.
- Control and protection schemes.

Bidder shall be responsible for:

- Detailed co-ordination with other services, shop drawings for various electrical layouts such as equipment layout, lighting layouts, cabling layouts, earthing and lightning protection layouts, including equipment installation and cable termination details etc. prior to start of work. The shop drawings shall be prepared in consultation with Engineer –In charge considering existing works.
- Preparation of bill of materials for cabling, lighting, earthing and miscellaneous items etc.
- Lighting/power panel schedule.
- Interconnection drawing.
- Protection co-ordination drawings/tables for complete Electrification system.
- Shop inspection and testing procedures.
- Preparation of as built drawings for all services.
- Any other work/activity which is not listed above however is necessary for completeness of electrification system.

3 CODES & STANDARDS

The work in general shall be done as per latest CPWD Specifications Part-I (Internal Electrical Works).

The design engineering manufacturing and the installation shall be in accordance with established codes, sound engineering practices, and specifications and shall conform to the statutory regulations applicable in the country.

- Indian Electricity Act.
- Indian Electricity Rules.
- Factory Act.
- Pollution Control Act.

IS-732:	Code of practice for electrical wiring installation system voltage not exceeding 650V.
IS-3043:	Earthing.
IS-2309:	Code of practice for the protection of buildings and allied structure against Lightning
IS-7689:	Guide for control of undesirable static electricity.

IS-3716:	Insulation co-ordination application guide.
IS-8130:	Conductors for insulated electrical cables and flexible cords.
IS-5831:	PVC insulation and sheath of electric cables.
IS-3975:	Mild steel wire, strips & tapes for armouring cable.
IS-3961:	Current rating of cables
IS-694:	PVC insulated (heavy duty) electric cables for working. Voltage up to and including 1100 volts.
IS-424- 1475 (F-3):	Power cable flexibility test.
IEC-439/IS-7098:	Specification for cross linked polyethylene insulated PVC sheathed cable for working voltage up to 1.1 KV.
IS-1554:	PVC insulated cables up to 1100 volts.
IS-10810:	Test procedures for cables.
IS-6121:	Cable glands.
IS-10418:	Cable drums.
IEC-754(1):	FRLS PVC insulated cable.
ASTM-D-2863:	Standard method for measuring minimum oxygen concentration to support candle-like combustion of plastic (oxygen index).
ASTM-D-2843:	Standard test method for measuring the density of smoke from burning or decomposition.
ASTM E-662/IEC 754(A)	Standard test method for specific optical density of smoke generated by solid materials.
IEEE-383:	Standard for type test class-IE, electric cables, field splicers and connections for power generation station.
IS 13947/IEC 947:	Air circuit breaker/moulded case circuit breaker.
IS-8623:	Specification for factory built assemblies of switch gear and control gear for voltage upto and including 1000vac/1200vdc
IS 1018:	Switchgear and control gear selection/installation and maintenance
IS-1248:	Direct acting indicating analogue electrical measuring instruments and testing accessories.
IS-13779:	Digital measuring instruments and testing accessories.
IS-3156:	Voltage transformer

IS-2705:	Current transformer for metering and protection with classification burden and insulation.
IS -2147:	Degree of protection provided by enclosures for low voltage. PART 1, 11,111 Switchgear and control gear
IS-3427:	Metal enclosed switchgear and controlgear
BS-162:	Safety clearance
IS-3202:	Code of practise for climate proofing of electrical equipment.
IS-375:	Marking and arrangement for switchgear, busbars, main connections and auxiliary wiring.
IS-722:	Ac electric meters
IS-3231 /IEC-255:	Electrical relays for power system protection.
IS-5082:	Electrolytic copper/aluminium bus bars
IS-2834:	Capacitors
IS-2713:	Steel tubular pole
IS-335:	Specification for insulating oil
IS-3837:	Specifications for accessories for rigid steel conduit for electrical wiring.
IS-2026& 335:	Distribution transformer (PART I, II, III) GI/STEEL /PVC conduit pipe for electrical wiring.
IS-2274:	Code of practise for electrical wiring installation system voltages exceeding 650 volts.
IS-6665:	Code of practise for industrial lighting
IS-3646:	Interior insulation part 1&2
IS-1944:	Code of practise for lighting of public through fares.
IS-7752:	Guide for improvement of power factor consumers installation.
IS-13346:	General requirement for electrical for explosive gas atmosphere.
IS-13408:	Code of practise for the selection, installation and maintenance of electrical apparatus for use in potentially explosive atmospheres
IS-12360:	Voltage and frequency for ac transmission & distribution system.
IS-5572:	Classification of hazardous area for electrical installations.

IS-5571:	Guide for selection of electrical equipment for hazardous area.
IS-4201:	Application guide for Current Transformer
IS-4146:	Application guide for Voltage Transformer
IS-10028:	Code of practise for installation and maintenance of transformer
IS-8478:	Application guide for on load tap changer
IS-10561:	Application guide for power transformer
IS-1646:	Code of practise for fire safety of buildings electrical installation
IS-3034:	Code of practise for fire safety of industrial building-electrical generating and distribution station
IP-30:	National electrical code (NEC) BIS publication.
IS-4722:	Rotating electrical machines.
IS-4889:	Method of determination of efficiency of rotating electrical machines.
IS-325:	Three phase induction motors.
IS-4729:	Measurement and evaluation of vibration of rotating electrical machines.
IS-900:	Installation and maintenance of induction motors.
IS-4029:	Air break switches.
IS-2208-9224:	HRC cartridge fuses.
IS-2959:	Contactors.
IS-9537:	Rigid steel conduit.
IS-1030-1982:	Specification for carbon steel castings for general engineering purpose.
IS-1601/ BS-649:	Performance & testing of Internal Combustion (IC) engines for general purpose.
AIEE-606(1959):	Recommended specification for speed governing of I.C. engine generator units.
BS-5514/IS-3046 8528(Part-2):	Reciprocating IC engine driven A.C. generators.

Any other standard may be followed provided it is equivalent or more stringent than the standards specified above.

In case of any deviation /conflict of this specification with the codes & standards, the following order of precedence shall govern.

- a) Specification, particular specification if any, and drawings.
- b) Indian regulations/codes and standards.

4 CABLE & WIRING DETAILS

- i. Internal Wiring. Copper conductor PVC insulated 1.1 KV grade as called for in BOQ.
- ii. Power Cables (L.T.). XLPE insulated Al. Armoured Cable as per BOQ.
- iii. Grounding Conductor. Copper/G.I. strip as per BOQ.
- iv. Lightning Conductor. G.I. Strip.

5 ACCURACY CLASS OF METERS

- a Revenue Meters. Class-0.5 or as per SEB approved.
- b Ammeter, Voltmeter and Other Instruments. Class – I Digital / Analogue as per BOQ.

SETTING UP OF RESIDENTIAL COMPLEX AT AIIMS RISHIKESH**(SH: Balance Building Works-Nurses Hostel)****List of Approved Makes of Materials**

S.No.	Details of Equipment/ Material	Make/Manufacturer
A. CIVIL & Plumbing Services		
1.	Adhesive for Door Work	Fevicol/Vamicol/Dunlop
2.	Air Release Valve	Azud/ API/ Bermad/ BIR/ Kirloskar / Venus / Zoloto
3.	Aluminium Accessories and Hardware	Classic/Argent/Oxford /Newlite /Crown /EBCO /Earl Bihari
4.	Aluminium Cladding Sheets	Aludecor/Amstrong / Alucobond / Alupan / Alstone
5.	Aluminium Composite Panel (ACP)	Alucobond, Durobond, Durabuild
6.	Aluminium Die-Cast handles & two point locking kit	Giesse / Securistyle / Alu – alpha
7.	Aluminium Extrusion	Hindalco / Jindal / Indal/ Mahavir
8.	Aluminium Fabricators	To be approved by the Engineer-in-Charge
9.	Aluminium Hardware And Accessories	Godrej, Union, Ebco, Dorma, D-Line ,Crown
10.	Aluminium Sections Extruded	Jindal ,Hindalco,Indal
11.	Anchor Fastener	Hilti / Faischer /Bosch
12.	Anti – Termite Treatment	Pest Control India Ltd. In case PCI is not able to undertake the work, it should be done by permanent members of IPCA as approved by Engineer-in-Charge.
13.	Ball Cock	Sant / L&T/Audco/ Gpa
14.	Ball valves with floats	Zoloto / Leader / Sant / Jayco /GPA /Audco /AIP
15.	Bitumen Impregnated Board	Fosroc, Jolly Board, Sika
16.	Block Board/Pre-laminated Particle Board/ Plywood/ Decorative Veneers	Kit Ply, Sarda Ply, Greenply,Action Tesa, Century, Novapan
17.	Brass Hasp And Staple	Godrej, Harrisson
18.	Brass Locks	Godrej, Ebco, Ingersol Rand, Hettich
19.	Brass stop & Bib Cock	Zoloto / Sant / Jaquar
20.	Cast Iron Valves	Leader, Venus, Upadhyay, Sarkar, Ghosh Engineering.
21.	Cement	ACC, Ambuja, Ultratech, Birla, Lafarge
22.	Centrifugally Cast (Spun) Iron Pipes & Fittings	RIF, BIC, NECO,HIF
23.	Ceramic Tile Adhesive	Cico/Bell/Pidilite
24.	C. I Fitting	Electrosteel/ Kesoram/ Neco/ RIF
25.	C.I Sluice Valve & Non Return Valve	Kirloskar / IVC/ Leader /Zoloto/ Audco/ Sant/ AIP
26.	C.I Valves (Full way, Check and Globe Valves	Leader / Kirloskar / SKF / Zolto / Sant / Upadhyay / Castle / Kartar
27.	C.I. Manhole Covers	NECO/R.I.F./B.C./Hepco/SKF/Kajeco
28.	C.P. Fittings Mixer / Pillar taps/ C.P brass angle valve/ Valves Washers,	Jaquar /Marc/ Sanitaryware (ARK)/ Parry/ Orient/ Kingston

S.No.	Details of Equipment/ Material	Make/Manufacturer
	C.P. brass accessories	
29.	C.P. Waste, Spreaders, Urinal	Jaquar/Parko/ Parryware
30.	Cement	ACC / Ultra tech / Birla Corp. Ltd. (Cement Divn.) / JK Cement / Jaypee-Rewa / Ambuja / Lafarge /Prism / India Cement / Bangur/ Shree
31.	Cement: White	Birla White / JK
32.	Centrifugally C.I Rainwater Intel fitting , Bronze gratings	Sages Metals, GMGR, Electro Steel , Kesoram, Neco , Neer
33.	Centrifugally cast C.I Rainwater fitting / Bronze gratings etc.	Sages Metals/ GMGR/ Electro Steel / Kesoram Neco / Neer
34.	Centrifugally casted C.I. Pipes	Neco / Hepco / Anand/ Kapilash
35.	Ceramic tiles	Somany / Kajaria /Nitco
36.	Ceramic tiles Adhesive	Cico / Pidilite / BalEndura / Sika
37.	Clear Glass / Clear Float Glass / Toughened Glass	Modi / Saint Gobain (SG) Asahi India Safety Glass Ltd /
38.	Concrete Additive	Sika /CICO/Pidilite / Fosroc / Fairmate / MC Bauchemie
39.	CPVC Pipes & Fittings	Flowguard/ Astral/ Ashrivad
40.	Dash Fasteners	Hilti / Faischer /Bosch
41.	Door closer / Floor spring	Doorking / Everite / Hardwyn/ Master
42.	Door Locks	Godrej / Harrison / Link
43.	Doors & Windows Fixtures / Fitting.	Everite / Classic/ Crown / Earl Bihari
44.	E.P.D.M Gaskets	Anand Reddiplex / Enviro Seals
45.	Extruded Polystyrene Board	Styrofoam by DOW Chemicals / Insuboard by Supreme Industries
46.	Flush Door	Centurydoor, Greenply Flush Door, Truwood Door, Duradoor, Sarda Plywood
47.	Forged Steel Fittings & Flanges (For Welded joints)	Rohini /Kanwal/ Vijay Cycle & Steel (VS)
48.	G.I. Fittings	R/Unik/Zoloto/K.S./Sun/Swastik
49.	G.I. Pipes	Jindal / Tata / Prakash Surya / SAIL / Swastik
50.	Glass Clear	Modigaurd, Asahi, Saint Gobain ,Goldplus
51.	Glass Mirror	Modiguard / Atul / Saint gobain/ Asahi India Safety / Modi Float / Goldplus
52.	Glass for Aluminum Doors/ Windows/ Structural Glazing	Modiguard / Saint Gobain / Pilkington/ Asahi India Safety Glass Ltd.
53.	Gunmetal Valves / C.P brass angle valve	Zoloto / Leader / Kilburn / Sant / Kartar/ AIP/ Audco
54.	Hydraulic Floor Spring	Dorma, Haffele, Godrej ,Dorset,Sandhu
55.	Laminates	Century/Greenlam/Formica/Sunmica/ Merrino
56.	Magnetic Catcher	Godrej, Ebco, Ingersol Rand, Hettich
57.	M.S. Pipe	Jindal / Prakash – Surya /TATA
58.	Night Latch	Godrej /Harrison / Link
59.	Non Return Valve	Sant/ Leader/ Zoloto / AIP / Kirloskar/ IVC/ Leader/ Audco
60.	P.T.M.T. Fitting	Prince India / Symet

S.No.	Details of Equipment/ Material	Make/Manufacturer
61.	Paints - Cement Based	Snowcem plu/, Berger (Durocem Extra)/ Norolac (Super Acrylic)
62.	Paints - Epoxy paint	Nerolac / Cico / Sika / BASF / Berger / Pidillite
63.	Paint - Exterior Type Acrylic Based	Nerolac, Berger, Asian Paints - Apex Ultima
64.	Paints - Oil Bound Distemper / Acrylic Washable Distemper	Asian (Tractor)/ Burger (Bison)/ Nerolac (Super Acrylic)
65.	Paints - Other Paints / Primer	ICI Dulux/ Asian/ Berger/ Nerolac
66.	Paints - Plastic Emulsion Paint	ICI Dulux/ Asian/ Berger/ Nerolac
67.	Paints - Synthetic Enamel Paints	ICI Dulux (Gloss), Berger (Luxol Gold), Asian (Apcolite), Goodlas Nerolac (Full gloss hard drying)
68.	Paints - Texture paint	Berger / Spectrum / Unilite heritage /Asian
69.	Paint- Zinc Chromate Primers	Shalimar, Asian Paint, Berger, ICI
70.	Pig Lead (For Caulking of Joints)	Locally available best quality with minimum 99% purity
71.	Pipe coat material (pipe protection)	RPG Raychem/Pypkote/Makphalt/Lwl
72.	Plastic seat cover of W.C	Commander/Hindware / Parryware
73.	Plywood/Block board/Ply board	Duro/ Greenply/ Century/ Kitply/ Greenply / National / Anchor
74.	Polycarbonate Sheets	Galina/GE Plastic / Vergola / Skyarch/ Polytechno/ FlexyTuff
75.	Pre-Laminated Particle Board	Novapan /Century /Green Ply
76.	Pressed M S Doors Frames	West Wind Concepts Pvt. Ltd., Gurgaon/ Shiva Steel Pvt. Ltd., Noida /AGEW Steel Manufacturing, Ahmedabad
77.	PVC flushing cistern	Commander / Parryware / Hindware
78.	PVC Pipes & fitting SWR Soil, Waste & Vent Pipes and fittings, Type B PVC Casing & Screen Pipes	Prince / Supreme / Finolex
79.	Polyethylene Storage Tank	Sintex / Polycon
80.	Rain Water Pipe	Prince/Finolex/Supreme
81.	Reinforcement Steel	SAIL/RINL/TATA Steel Ltd./ Jindal Steel & Power Ltd./ JSW Steel Ltd.
82.	Sand Cast (Spun) Iron Pipes & Fittings (Conforming To IS: 1729)	AMC, ALC, Bengal Iron
83.	SS Gratings, Soap Dish Towel Rail etc.	Camry/Glacier/Gem
84.	Stainless Steel	Salem Steel or as approved E-in-Charge
85.	Stainless Steel bolts, Washers & Nuts	Kundan / Puja / Atul
86.	Stainless Steel Screw for Fabrication and fixing of Windows	Kundan / Puja / Atul
87.	Stone ware pipes & Gully Traps	Perfect / SKF/ R.K/ Hind / Anand /Burn
88.	Sunken Portion Treatment	Choksey / Sika / Cico, MC Bouchemie / MC Bouchemie / BASF
89.	Tiles: Ceramic tiles	Somany / Kajaria / Nitco
90.	Tiles: Glazed tiles	Somany / Kajaria /Nitco
91.	Tower Bolt / Stoppers	Godrej, Union, Ebco, Dorma, D-Line

S.No.	Details of Equipment/ Material	Make/Manufacturer
92.	UPVC Pipes & fittings	Finolex / Prince / Supreme / AKG / Kasta / Vector / Astral
93.	Veneered Particle Board	Duro / Greenply / Century / Novapan / Action Tesa
94.	Vitreous China/ Sanitary ware	Hindware / Parryware / Cera
95.	Water Proofing treatment Agencies	To be approved by the Engineer-in-Charge
96.	Water Proofing Materials	BASF/ Fosroc / Sika / CICO
B. Electrical Works		
S.No	Detail of Equipment/Material	Make/manufacturer
1.	A/C outlet 32 Amps with MCB	Hensel/ North West/ Crabtree
2.	A/C Outlets	North West/ MDS-Legrand/ Crabtree
3.	ACB (TP,4P) with variable microprocessor based releases (O/C, S/C & E/F) compatible with PLC	L&T (u-power), Siemens (Sentron), Schneider (Nw Masterpact), GE (entelliguard), ABB (emax).
4.	Auxiliary relays compatible with PLC etc.	Siemens, L&T, GE,ABB, Areva
5.	Batteries	Hitachi, Global, Yuasa, Exide, Amco, SF, Microtek, Amaraja
6.	Battery charger	Amaraja, Sabnife, Chhabi, Statcon
7.	Brass compression gland (Heavy duty)	Commex, Gripwell or equivalent
8.	Bus bar	Jindal/ Hindalco or equivalent
9.	Cable lugs & gland	Dowel, Jhonson, Gripwell, Comex, Hex, Comet
10.	Capacitors with harmonic filters	Epcos, L&T, GE, Siemens (Siepan), Schneider, ABB
11.	Ceiling fans	Crompton, Usha, Orient, Bajaj, Havells, GE, Khaitan, Alstom
12.	CFL lamps	Philips, Crompton, Wipro, GE, Osram, Bajaj
13.	Coaxial wires	Finolex, Delton, Skytone, Anchor, L&T, Beldon,
14.	Contactors	ABB, L&T, Schneider, GE, Siemens
15.	Control Cables	Polycab, Nicco, Ecko, UIL, Elektron, KEI,
16.	Control fuse base with HRC fuse / HRC Fuse	L&T, GE, Siemens, ABB, Alstom
17.	Conventional detectors & hooters & accessories	Edwards, Honeywell, GST, Johnson control, System sensor, Cease fire
18.	Copper control cable (FRLS)	Havell's, RR Cables, Elektron Harsh
19.	Crimping lugs/thimbles	Dowells, Hex, Commet
20.	CT/PT's	Meher, CGL, Kappa, Maxwell, Areva, L&T, AE, Jyoti,
21.	CT's (Cast resin)	L&T, AEI, Kappa, Pragati, Gilbert
22.	Cubical type Synchronizing & capacitor control panel (Bolted / Folded fabrication)	L&T, ABB, Schneider, GE, Siemens (Siepan), GE
23.	Cubicle type fuse unit	Siemens, L&T, ABB, Schneider, GE
24.	Data Outlets	SYSTEMAX, amp, clipsal
25.	MCBs, RCCB & DBs	Legrand, Schneider, Siemens, GE, ABB, L&T (Hager),
26.	Digital lighting control system	Aura dimming, relux controls, lightolier control, effectron, Philips, Schneider.
27.	Digital Numerical Relays	L&T, ABB, Siemens, Schneider, GE, Areva
28.	DWC HDPE Pipe	DURA-LINE, REX, CARLON, EMTELLE

S.No.	Details of Equipment/ Material	Make/Manufacturer
29.	Energy / Digital meters	Enercon, L&T, Rishabh, Secure, Trinity, Schneider Electric, Havells, HPL, GE, Siemens, ABB, Conzerv
30.	Exhaust fan	Usha, Crompton, Havells, GE, Bajaj, Alstom
31.	Feeder pillars, Meter cubicle Panels, Floor panels for upto 400A i/c switchgear	ABB, L&T, GE, Siemens, Schneider
32.	FRLS - PVC/Aluminum / copper 1.1 KV grade /cables & wires	Elektron, Havells, Polycab, Finolex, RR
33.	G.I./Cu. Strip & earthing material)	Bharati, Indiana, Slotco
34.	Glands	Comet/ Stripwel/ Baliga
35.	Indicating Lamp(LED)	BCH/ L&T/ Rank/ MG
36.	Indicating lamps	AE, Kaycee, Vaishnav, L&T, Siemens, Emco
37.	Industrial socket outlets	GE, ABB, Hager, Legrand
38.	Insulators	Jaya Shree, Modern, IEC, WSI.
39.	Intelligent detectors & hooters & accessories	Notifire, Honeywell, Johnson Control, Schneider, edwards
40.	Isolators	Siemens, L&T, ABB, GE
41.	Jointing kit	Reychem, Xicon, Birla 3M
42.	Light fittings/ Lamps	Philips, Wipro, Bajaj, Havells, Keslec, Pierlite
43.	Lightning arrestor	Indelec, Gersom, Helitta, MDS, Hager, Duval Messin, L&P Electro, LPI
44.	LT cables (XLPE,PVC)	Cable Corporation Of India, Universal, Havells Nicco, Polycab, Finolex, Rallison, Gloster, Elektron, KEI
45.	LT panels	ABB, L&T, GE, Siemens, Schneider
46.	Lugs	Dowell's/ HAX
47.	MCCB with variable Microprocessor based (O/C, S/C, E/F) / Thermo magnetic releases	L&T D-sine, Siemens(3VL), Merlin Gerin (NSX compact), GE(Record), ABB-T Max
48.	Measuring instruments (Digital type)	L&T, Ducati, Conzerv, HPL, Siemens
49.	Modular switches, socket outlets and wiring accessories with moulded cover plate	Anchor (ave), MK (wraparound), Siemens, legrand (mosiac), L&T, clipsal (neo'c' metro), Havells (piccadilly)
50.	MS Conduit	BEC, AKG, Steel Craft
51.	MS Conduit accessories	Rama, Novel, BEC, AKG, steel craft
52.	Multi-function Meter	L&T, ABB, Siemens, Schneider, Ducati,
53.	Overload relay single phase preventer	ABB, L&T, GE, Siemens, Areva
54.	Panel accessories	L&T, Rishab, Siemens, BCH
55.	Programmable timer (self-powered electronic digital)	L&T, Siemens, Hager, MDS, Legrand
56.	Protective relays (Microprocessor based compatible with PC & PLC)	Siemens, L&T, ABB, GE, Areva
57.	Push button, indicating lamps (led type)	Siemens, L&T, ABB, Schneider, C&S
58.	PVC conduit	Precision, Avonplast, Clipsal, Harsh, Polypack, BEC, AKG
59.	PVC conduit Accessories	Precision, Avonplast, Clipsal, Harsh, Polypack, BEC, AKG.
60.	Race ways/ Cable Trays/ Floor	MK, Legrand, Needo, Rico Steel, Pilco, Slotco

S.No.	Details of Equipment/ Material	Make/Manufacturer
	trunking / wall channels	
61.	Relay and Control Panel	Siemens , L&T, GE, Schneider, ABB
62.	Relays- Auxiliary / Numerical /Bi metal relay	L&T, GE, ABB, Alstom, Siemens, Areva.
63.	Selector switch	Salzer, Kaycee, Siemens, HPL, L&T, BCH
64.	Starters	Siemens, L&T, GE,ABB, Schneider , Areva
65.	Surge diverter	TerceI, ABB, Siemens, Emerson, Hager, Phoenix, Legrand
66.	Tap-off, Splitter box	Zinwell, Novatron, Catvision
67.	UPS	Emerson , A.P.C ,Socomec, GE, Mistubishi, Eaton
68.	Voltmeter and ammeter	AE, Meco, Universal, Rishab, Yokins
<p>Note:-</p> <ol style="list-style-type: none"> 1. The contractor will use one of the approved makes as approved by the Consultant / Engineer - in-charge. 2. In case of different quality / pattern of same make, the pattern/ quality shall be approved by the Consultant / Engineer – in – charge. 3. All the items included in the list or otherwise to be used in the work should conform to CPWD and relevant BIS specifications / relevant codes, as applicable. 4. If any item is missing in the above list, its make will be decided by the Engineer –in-charge/ Consultant. 5. If any major equipment is using a small component of make other than that given as a standard component with the equipment, the same shall be accepted. 		

MINISTRY OF HEALTH & FAMILY WELFARE

GOVERNMENT OF INDIA, NEW DELHI

Tender No. MoHFW /AIIMS-RISHIKESH/BBW-NH/HLL/ID/2014

Request for Proposal (RFP)

for

**SETTING UP OF RESIDENTIAL COMPLEX
AT AIIMS RISHIKESH
(SH: Balance Building Works-Nurses Hostel)**

The Complete Tender Documents consist of the following:

- Volume- I (NIB & ITB)
- Volume-II (GCC & SCC)
- Volume-III (Tech. Specs)
- Volume-IV (BOQ)

Volume – IV

- **Bill of Quantities**



B-14A, Sector – 62,
NOIDA (UP) -201307

Phone no: 0120-4071500, Fax no: 0120-4071513

(March, 2014)

PREAMBLE TO BILL OF QUANTITIES

(These preambles apply to all the sections of the Bill of Quantities. The Contract rates shall take into account all these provisions in addition to various provisions in other parts of the Contract document)

SI No.	DESCRIPTION
1	This is an "Item Rate Tender". Rates shall include cost of materials, labour, plants & equipments taxes, duties and all necessary apparent services required for complete execution, and commissioning in accordance with relevant drawings and specification. The HLL/MoHFW decision on interpretation of bill of quantities and its preamble shall be final and binding on the contractor.
2	The quantities given in this Bill of Quantities are liable to variations. Such variations in quantities shall not, however, vitiate the contract in any way whatsoever and all quoted rates shall remain valid as per deviation limits provided in the contract. Contractor shall be paid for the actual measured quantities of work executed by him/them .
3	Rates quoted shall be firm and shall not be subject to any price variations except as specifically provided in the contract.
4	The contractor's quoted rate shall include surveying, making layout and demarcation of all services as required for completion of the works within the scope of this contract .
5	The words "as specified", "as described", "as shown", "as directed", or "as approved", shall mean as described in the specifications, Schedule of Quantities and other Contract documents as shown on the drawings or as directed by EIC.
6	The following notations as appearing in the Bill of Quantities and specifications shall mean :
	a) Cum = Cubic metre
	b) Sqm. = Square metre
	c) Rm/Mtr./ Metre = Running metre
	d) No./Nos./Each/Set = Numbers
	e) Kg. = Kilogram
	f) MT. = Metric Ton
7	For the general guidance of the bidders, tender drawings are available with the HLL/MoHFW which should be seen /consulted by the intending bidders before bidding. The detailed working drawings shall be issued to the successful bidder after start of work at site and during the execution of the work so as per requirement and progress chart prepared initially and /or modified subsequently by the contractors.
8	The bidders shall take into account all leads and lifts involved in transport of materials to site, erection and hire of T & P, sheds for materials, etc. while quoting the rates for various sub heads of the work. Similarly all taxes including Octroi, Toll or Sales Tax/VAT, Works Contract Tax or any other Taxes etc. as payable by the contractor at the time of submission of bids shall be taken in to account by the bidders before quoting their. Any claim in these matters whatsoever in this respect shall not be entertained.

PROJECT: SETTING UP OF RESIDENTIAL COMPLEX AT AIIMS RISHIKESH (SH: BALANCE BUILDING WORKS-NURSES HOSTEL)			
FINANCIAL BIDSUMMARY SHEET			
SR. NO	SUB-HEAD	Quoted Amount in Figures (Rs.)	Quoted Amount in Words (Rs.)
1	Civil Works		
2	Electrical Works		
	TOTAL AMOUNT		

PROJECT: SETTING UP OF RESIDENTIAL COMPLEX AT AIIMS RISHIKESH (SH: BALANCE BUILDING WORKS-NURSES HOSTEL)			
FINANCIAL BID SUMMARY SHEET CIVIL WORKS			
SR. NO	SUB-HEAD	Quoted Amount in Figures (Rs.)	Quoted Amount in Words (Rs.)
1	CONCRETE WORK		
2	REINFORCED CEMENT CONCRETE		
3	BRICK WORK		
4	WOOD AND PVC WORK AND ALUMINIUM WORK		
5	STEEL WORK		
6	FLOORING		
7	RAIN WATER PIPE		
8	FINISHING		
9	REPAIRS		
10	DISMANTLING AND DEMOLISHING		
11	SANITARY INSTALLATIONS		
12	WATER SUPPLY		
13	DRAINAGE		
14	WATER PROOFING		
	TOTAL AMOUNT		

PROJECT: SETTING UP OF RESIDENTIAL COMPLEX AT AIIMS RISHIKESH (SH: BALANCE BUILDING WORKS-NURSES HOSTEL)			
FINANCIAL BID SUMMARY SHEET ELECTRICAL WORKS			
SR. NO	SUB-HEAD	Quoted Amount in Figures (Rs.)	Quoted Amount in Words (Rs.)
1	Wiring, Switch & Socket		
2	Fittings		
3	Distribution		
4	Earthing		
	TOTAL AMOUNT		

**PROJECT: SETTING UP OF RESIDENTIAL COMPLEX AT AIIMS RISHIKESH
(SH: BALANCE BUILDING WORKS-NURSES HOSTEL)
CIVIL WORKS-BOQ**

Sl. No.	DSR Item No	Description of Work	Unit	Total Qty	Rates in Rs (in Figures)	Rates in Rs (in Words)	Amount in Rs (in Figures)	Amount in Rs (in Words)
1.00		Sub Head-I :- Concrete work						
1.01	4.17	Making plinth protection 50 mm thick of cement concrete 1:3:6 (1 cement:3 coarse sand : 6 graded stone aggregate 20 mm nominal size) over 75mm thick bed of dry brick ballast 40 mm nominal size, well rammed and consolidated and grouted with fine sand, including finishing the top smooth.	sqm	200				
		Concrete work Sub Head Total :-						
2.00		Sub Head-II:- Reinforced Cement Concrete						
2.01	5.9	Centring and Shuttering including strutting,propping etc. and removal of form for:						
	5.9.4	shelves(cast in situ)	sqm	50				
2.02	5.22	Steel reinforcement for r.c.c work including straightening,cutting,bending,placing in position and binding all complete						
	5.22.6	Thermo-mechanically treated steel bars(grade of steel Fe 500)	kg	100				
		Reinforced Cement Concrete Sub Head Total						
3.00		Sub Head-III :- Brick Work						
3.01	6.4	Brick work with common burnt clay F.P.S.(non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level in all shapes and sizes in:						
	6.4.2	Cement mortar 1:6 (1Cement:6 Coarse Sand)	cum	10				
3.02	6.13	Half brick masonry with common burnt clay F.P.S.(non modular) brick of class designation 7.5 in superstructure above plinth level up to floor V level.						

Sl. No.	DSR Item No	Description of Work	Unit	Total Qty	Rates in Rs (in Figures)	Rates in Rs (in Words)	Amount in Rs (in Figures)	Amount in Rs (in Words)
	6.13.2	Cement mortar 1:4 (1 cement : 4 coarse sand)	sqm	15				
3.03	6.15	Extra for providing and placing in position 2 Nos 6mm dia. M.S. bars at every third course of half brick masonry	sqm	15				
		Brick Work Sub Head Total						
4		Sub Head-IV:- Wood ,PVC Work And Aluminium Work						
4.01	21.13	Providing and fixing 100mm brass locks (best make of approved quality) for aluminium doors including necessary cutting and making good etc. complete	each	12				
4.02	9.97	Providing and fixing aluminium tower bolts, ISI marked, anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour or shade, with necessary screws etc. complete						
	9.97.3	200x10 mm	each	500				
4.03	21.4	Providing and fixing double action hydraulic floor spring of approved brand and manufacture conforming to IS : 6315, having brand logo embossed on the body / plate with double spring mechanism and door weight upto 125 kg, for doors, including cost of cutting floors,embedding in floors as required and making good the same matching to the existing floor finishing and cover plates with brass pivot and single piece M.S. sheet outer box with slide plate etc. complete as per the direction of Engineer-in-charge.						
	21.4.2	with brass cover plate minimum 1.25 mm thickness	each	48				
4.04	21.1.2	For shutters of doors, windows, & ventilators including providing and fixing hinges / pivots and making provision for fixing of fittings wherever required including the cost of EPDM rubber/ neoprene gasket required (Fittings shall be paid for separately)						

Sl. No.	DSR Item No	Description of Work	Unit	Total Qty	Rates in Rs (in Figures)	Rates in Rs (in Words)	Amount in Rs (in Figures)	Amount in Rs (in Words)
	21.1.2.2	Powder coated aluminum (minimum thickness of powder coating 50 micron)	kg	8600				
4.05	9.97	Providing and fixing aluminum tower bolts , ISI marked, anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour or shade with necessary screws etc. complete.						
	9.97.5	100x10 mm	each	600				
4.06	9.100	Providing and fixing aluminum handles ISI marked anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour or shade with necessary screws etc. complete.						
	9.100.2	100 mm	each	300				
4.07	21.3	Providing and fixing glazing in aluminum door, window, ventilator shutters ad partitions etc. with EPDM rubber / neoprene gasket etc. complete as per the architectural drawings and the directions of engineer-in-charge. (Cost of aluminum snap beading shall be paid in basic item) :						
	21.3.2	With float glass panes of 5.50 mm thickness	sqm	350				
4.08	10.30	Providing & fixing glass panes with putty and glazing clips in steel doors, windows, clerestory windows, all complete with						
	10.30.2	5.5 mm thick glass panes	sqm	75				
4.09	9.102	Providing and fixing aluminum casement stays ISI marked anodised (anodic coating not less than grade AC 10 as per IS 1868) transparent or dyed to required colour and shade with necessary screws etc. complete.	each	500				

Sl. No.	DSR Item No	Description of Work	Unit	Total Qty	Rates in Rs (in Figures)	Rates in Rs (in Words)	Amount in Rs (in Figures)	Amount in Rs (in Words)
4.10	9.21	Providing and fixing ISI marked flush door shutters conforming to IS : 2202 (Part-I) non-decorative type, core of block board construction with frame of 1st class hard wood and well matched commercial 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters :						
	9.21.1	35mm thick including ISI marked stainless steel butt hinges with necessary screws.	sqm	260				
4.11	9.62	Providing and fixing ISI marked oxidised M.S. sliding door bolts with nuts and screws etc. complete.						
	9.62.2	250 x 16 mm	each	300				
4.12	9.63	Providing and fixing ISI marked oxidised M.S. tower bolt black finish, (Barrel Type) with necessary screws etc. complete.						
	9.63.1	250 x 10 mm	each	350				
	9.63.3	150 x 10 mm	each	350				
4.13	9.66	Providing and fixing ISI marked oxidized MS handles conforming to IS : 4992 with necessary screws etc. complete.						
	9.66.1	125 mm	each	816				
4.14	9.101	Providing and fixing aluminium hanging floor door stopper, ISI marked,anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour and shade, with necessary screws etc. complete.						
	9.101.2	Twin rubber stopper	each	210				
4.15	9.47	Providing and fixing nickel plated M.S. pipe curtain rods with nickel plated brackets:						
	9.47.2	25 mm dia (heavy type)	metre	1000				

Sl. No.	DSR Item No	Description of Work	Unit	Total Qty	Rates in Rs (in Figures)	Rates in Rs (in Words)	Amount in Rs (in Figures)	Amount in Rs (in Words)
4.16	NSR	Providing wood work in frames of cupboard and fixed in position (including concrete cutting and their repair) with hold fast lugs or with dash fasteners of required dia & length. - Kilned Seasoned and chemically treated hollock wood	cum	6				
4.17	9.129	Providing and fixing cup board shutters 25mm thick, with Pre-laminated flat pressed three layer particle board or graded wood particle board IS:12823 marked exterior grade (Grade I Type II) having one side decorative lamination and other side balancing lamination including IInd class teak wood lipping of 25mm wide x 12 mm thick with necessary screws and bright finished stainless steel piano hinges complete as per direction of the Engineer-in-charge	Sqm	900				
4.18	9.100.1	Providing and fixing aluminium handles, ISI marked, anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour or shade, with necessary screws etc. complete :						
	9.100.1	125mm	each	1000				
4.19	9.97	Providing and fixing Aluminium Tower Bolts, ISI Marked, anodised (Anodic Coating not less than AC 10 as per IS 1868), transparent or dyed to required colour or shade with necessary screws etc. complete:						
	9.97.4	150x10 mm	each	300				
4.20	9.114	Providing and fixing Magnetic Catcher of approved quality in cupboard / ward robe shutters including fixing with necessary screws etc. complete						
	9.114.2	Double Strip (horizontal Type)	each	900				
4.21	9.87	Providing and fixing bright finished brass hasp and staple (safety type) with necessary screws etc. complete:						
	9.87.1	150 mm	each	350				
		Wood ,PVC Work And Aluminium Work Sub Head Total						

Sl. No.	DSR Item No	Description of Work	Unit	Total Qty	Rates in Rs (in Figures)	Rates in Rs (in Words)	Amount in Rs (in Figures)	Amount in Rs (in Words)
5		Sub Head-V:- Steel Work						
5.01	10.5	Providing and fixing 1mm thick M.S. sheet door with frame of 40x40x6 mm angle iron and 3 mm M.S. gusset plates at the junctions and corners,all necessary fittings complete, including applying a priming coat of approved steel primer.						
	10.5.2	Using flats 30x6mm for diagonal braces and central cross piece	Sqmt	35				
		Steel Work Sub Head Total						
6.00		Sub Head-VI:- Flooring						
6.01	11.26	Kota stone slab flooring over 20 mm (average) thick base laid over and jointed with grey cement slurry mixed with pigment to match the shade of the slab including rubbing and polishing complete with base of cement mortar 1:4 (1 cement : 4 coarse sand) :						
	11.26.1	25 mm thick	sqm	1200				
6.02	11.27	Kota stone slabs 20 mm thick in risers of steps, skirting, dado and pillars laid on 12 mm (average) thick cement mortar 1:3 (1 cement: 3 coarse sand) and jointed with grey cement slurry mixed with pigment to match the shade of the slabs, including rubbing and polishing complete.	sqm	600				
6.03	11.31	Extra for pre finished nosing in treads of steps of Kota stone/ sandstone slab.	metre	650				
6.04	11.36	Providing and fixing 1st quality ceramic glazed wall tiles conforming to IS:15622 (thickness to be specified by the manufacturer of approved made in all colours, shades except burgundy, bottle green, black of any size as approval by Engineer in charge in skirting risers of steps and dados over 12mm bed cement mortar 1:3 (1cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm including pointing in white cement mixed with pigment of matching shade complete.	sqm	2700				

Sl. No.	DSR Item No	Description of Work	Unit	Total Qty	Rates in Rs (in Figures)	Rates in Rs (in Words)	Amount in Rs (in Figures)	Amount in Rs (in Words)
6.05	8.6	Mirror Polishing on Kota stone work of wherever required to give high gloss finish complete.	sqm	1500				
6.06	11.37	Providing and laying Ceramic glazed floor tiles 300x300mm (thickness to be specified by the manufacturer) of 1st quality conforming to IS : 15622 of approved make in colours such as White, Ivory, Grey, Fume, Red Brown, laid on 20 mm thick Cement Mortar 1:4 (1 cement : 4 coarse sand) including pointing the joints with white cement and matching pigment etc. complete.	sqm	1000				
		Flooring Sub Head Total						
7.0		Sub Head-VII:- Rain Water Pipe						
7.01	12.41	Providing and fixing on wall face unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A including jointing with seal ring conforming to IS : 5382 leaving 10 mm gap for thermal expansion. (i) Single socketed pipes.						
	12.41.2	110 mm diameter	metre	450				
7.02	12.43	Providing and fixing unplasticised PVC pipe clips of approved design to unplasticised - PVC rain water pipes by means of 50x50x50mm hard wood plugs, screwed with M.S. screws of required length including cutting brick work and fixing in cement mortar 1:4 (1 cement : 4 coarse sand) and making good the wall etc. complete.						
	12.43.2	110 mm	each	200				
7.03	NSR	Providing and fixing 50 mm diameter and 60 cm long rain water spout using pvc pipes in cement mortar 1:4(1 cement :4 fine sand).	each	70				
7.04	NSR	Extra for making / cutting hole over kota skirting of required diameter for fixing 50 mm diameter rain water spout and their finishing.	each	70				
7.05	12.42	Providing and fixing on wall face unplasticised - PVC moulded fittings / accessories for unplasticised Rigid PVC rain water pipes confirming to IS : 13592 Type A including jointing with seal ring confirming to IS : 5382 leaving 10 mm gap for thermal expansion						
	12.42.5	Bend 87.5 degree						

Sl. No.	DSR Item No	Description of Work	Unit	Total Qty	Rates in Rs (in Figures)	Rates in Rs (in Words)	Amount in Rs (in Figures)	Amount in Rs (in Words)
	12.42.5.2	110 mm bend	each	30				
	12.42.6	Shoe (Plain)						
	12.42.6.2	110 mm shoe	each	20				
7.06	12.22	Making khurras 45x45 cm with average minimum thickness of 5cm cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate of 20 mm nominal size) over P.V.C. sheet 1 m x1 m x 400 micron, finished with 12 mm cement plaster 1:3 (1 cement : 3 coarse sand) and a coat of neat cement, rounding the edges and making and finishing the outlet complete.	each	10				
7.07	12.21	Providing gola 75x75 mm in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 stone aggregate 10 mm and down gauge), including finishing with cement mortar 1:3 (1 cement : 3 fine sand) as per standard design :						
	12.21.1	In 75x75 mm deep chase	metre	50				
7.08	12.46	Providing and fixing to the inlet mouth of rain water pipe PTMT (an Engineering Thermoplastic) grating square (Slit) 150 mm square with a height of 8 mm and weighing not less than 100 gms.	each	100				
		Rain water Pipe Sub Head Total						
8		Sub Head-VIII :- Finishing						
8.01	13.1	12MM cement plaster of mix :						
	13.1.2	1:6 (1 cement : 6 fine sand)	sqm	100				
8.02	13.2	15mm cement plaster on the rough side of single or half brick wall of mix :						
	13.2.2	1:6 (1 cement : 6 fine sand)	sqm	100				
8.03	13.16	6mm cement plaster of mix :						
	13.16.1	1:3 (1 cement : 3 fine sand)	sqm	100				

Sl. No.	DSR Item No	Description of Work	Unit	Total Qty	Rates in Rs (in Figures)	Rates in Rs (in Words)	Amount in Rs (in Figures)	Amount in Rs (in Words)
8.04	13.21	Extra for providing and mixing Water proofing material in cement plaster work in proportion recommended by the manufacturers.	per bag of 50kg cement	400				
8.05	13.26	Providing and applying plaster of paris putty of 2mm thickness over plastered surface to prepare the surface even and smooth complete.	sqm	13176				
8.06	13.41	Distempering with oil bound washable distemper of approved brand and manufacture to give an even shade						
	13.41.1	new work (two or more coats) over and including water thinnable priming coat with cement primer.	sqm	13176				
8.07	13.61	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade :						
	13.61.1	Two or more coats on new work	sqm	2300				
8.08	13.47	Finishing walls with Premium Acrylic smooth exterior paint with silicone additives of required shade						
	13.47.1	New work (two or more coats applied @1.43 ltr /10sqm) over and including priming coat of exterior primer applied @2.20 kg / 10 sqm	sqm	11000				
		Finishing Sub Head Total						
9		Sub Head-IX Repairs						
9.01	14.1	Repairs to plaster of thickness 12 mm to 20 mm in patches of area 2.5 sq. meters and under including cutting the patch in proper shape, raking out joints and preparing and plastering the surface of the walls complete including disposal of rubbish to the dumping ground within 50 meters lead :						
	14.1.1	With cement mortar 1:4 (1 cement : 4 fine sand)	sqm	100				

Sl. No.	DSR Item No	Description of Work	Unit	Total Qty	Rates in Rs (in Figures)	Rates in Rs (in Words)	Amount in Rs (in Figures)	Amount in Rs (in Words)
9.02	14.72	Providing and fixing double scaffolding system (cup lock type) on the exterior side, up to seven story height made with 40 mm dia. M.S. tube 1.5 m centre to centre horizontal & vertical tubes joining with cup & lock system with M.S. tubes, M.S. tube chollies, M.S. clamps and M.S. staircase system in the scaffolding for working platform etc. and maintaining it in a serviceable condition for the required duration as approved and removing it there after. The scaffolding system shall be stiffened with bracings, runners, connection with the building etc wherever required for inspection of work at required locations with essential safety features for the workmen etc. complete as per directions and approval of Engineer-in-charge. The lavational area of the scaffolding shall be measured for payment purpose. The payment will be made once irrespective of duration of scaffolding.	sqm	800				
		Repairs Sub Head Total						
10		Sub Head-X:- Dismantling And Demolishing						
10.01	15.13	Taking out doors, windows and clerestory window shutters (steel or wood) including stacking within 50 metres lead :						
	15.13.1	Of area 3 sq. metres and below	each	30				
10.02	NSR	Dismantling tile work in floors and roofs laid in cement mortar including stacking material within 100 metres lead.						
		For thickness of tiles 10 mm to 25 mm	sqm	50				
10.03	15.25	Dismantling stone slab flooring laid in cement mortar including stacking of serviceable material and disposal of unserviceable material within 50 metres lead.	sqm	50				
		Dismantling and Demolishing Sub Head Total						

Sl. No.	DSR Item No	Description of Work	Unit	Total Qty	Rates in Rs (in Figures)	Rates in Rs (in Words)	Amount in Rs (in Figures)	Amount in Rs (in Words)
11		Sub Head-XI :- Sanitary Installations						
11.01	17.2	Providing and fixing white vitreous china pedestal type water closet (European type W.C. pan) with seat and lid, 10 litre low level white P.V.C. flushing cistern with manually controlled device (handle lever) conforming to IS : 7231, with all fittings and fixtures complete including cutting and making good the walls and floors wherever required :						
	17.2.1	W.C. pan with ISI marked white solid plastic seat and lid.	each	204				
11.02	NSR	Providing & fixing wash basin with C.I. brackets, 15mm C.P. centre hole mixer , 32mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever required :						
		White Vitreous China Wash basin size 630x450 mm with a single 15mm C.P. centre hole mixer of approved make.	each	204				
11.03	NSR	Providing and fixing CP towel rail complete with brackets fixed to wooden cleats with C.P. brass screws with concealed fitting arrangement of approved quality and colour.						
		600 mm long towel rail with total length of 645mm, width 78mm and effective height of 88mm, As per approved make.	each	204				
11.04	17.35	Providing & Fixing soil, waste and vent pipes:						
	17.35.1	100 mm dia						
	17.35.1.2	Centrifugally cast (spun)iron socket & spigot (S&S) pipe as per IS:3989	metre	1500				
	17.35.2	75 mm diameter						
	17.35.2.2	Centrifugally cast (spun) iron socketed pipe as per IS:3989	metre	500				
11.05	17.58	Providing lead caulked joints to sand cast iron / centrifugally cast (spun) iron pipes and fittings of diameter :						
	17.58.1	100 mm dia pipe	each	600				

Sl. No.	DSR Item No	Description of Work	Unit	Total Qty	Rates in Rs (in Figures)	Rates in Rs (in Words)	Amount in Rs (in Figures)	Amount in Rs (in Words)
11.06	17.37	Providing and fixing M.S. Holder-bat clamps of approved design to sand cast iron/cast iron (spun) pipe embedded in and including cement concrete blocks 10x10x10cm of 1:2:4 mix (1cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) including cost of cutting holes and making good the walls etc.:						
	17.37.1	for 100mm dia pipe	each	600				
11.07	17.40	Providing and fixing heel rest sanitary bend						
	17.40.1	100mm dia						
	17.40.1.2	sand cast iron S&S as per IS : 3989	each	230				
11.08	17.41	Providing and fixing double equal junction of required degree with access door, insertion rubber washer 3mm thick, bolts and nuts complete.						
	17.41.1	100x100x100x100mm						
	17.41.1.2	sand cast iron S&S as per IS : 3989	each	300				
11.09	17.42	Providing and fixing double equal plain junction of required degree.						
	17.42.1	100x100x100x100mm						
	17.42.1.2	sand cast iron S&S as per IS : 3989	each	100				
11.10	17.56	Providing and fixing terminal guard:						
	17.56.1	100mm						
	17.56.1.2	sand cast iron S&S as per IS : 3989	each	65				
11.11	17.57	Providing and fixing collar :						
	17.57.1	100mm						
	17.57.1.2	sand cast iron S&S as per IS : 3989	each	100				
	17.57.2	75mm						
	17.57.2.2	sand cast iron S&S as per IS : 3989	each	20				
11.12	17.6	Providing and fixing trap of self cleansing design with screwed down or hinged grating with or without vent arm complete, including cost of cutting and making good the walls and floors :						

Sl. No.	DSR Item No	Description of Work	Unit	Total Qty	Rates in Rs (in Figures)	Rates in Rs (in Words)	Amount in Rs (in Figures)	Amount in Rs (in Words)
	17.60.1	100 mm inlet and 100 mm outlet						
	17.60.1.2	Sand cast iron S&S as per IS : 1729	each	150				
	17.60.2	100 mm inlet and 75 mm outlet						
	17.60.2.2	Sand cast iron S&S as per IS-1729	each	100				
11.13	17.31	Providing and fixing 600x450 mm beveled edge mirror of superior glass (of approved quality) complete with 6 mm thick hard board ground fixed to wooden cleats with C.P. brass screws and washers complete.	each	204				
11.14	17.28	Providing and fixing P.V.C. waste pipe for sink or wash basin including P.V.C. waste fittings complete						
	17.28.1	semi rigid						
	17.28.1.1	32 mm dia	each	204				
		SHOWERS						
11.15	NSR	Providing & fixing water jet in European type WC seat with all fittings etc. complete as per direction of Engineer in charge.	each	200				
11.16	NSR	Providing of CP shower with arm and all fittings labour & T& P etc. complete as per direction of Engineer in charge.	each	200				
		Sanitary Installations Sub Head Total						
12		Sub Head-XII Water Supply						
12.01	18.52	Providing and fixing C.P. brass stop cock (concealed) of standard design and of approved make conforming to IS : 8931.						
	18.52.1	15 mm nominal bore	each	210				
12.02	18.53	Providing and fixing C.P. brass angle valve for basin mixer and geyser points of approved quality conforming to IS : 8931.						
	18.53.1	15 mm nominal bore	each	588				
12.03	NSR	Providing and fixing C.P. brass long body bib cock of approved quality conforming to IS standards and weighing not less than 690 gms. Including all fittings						

Sl. No.	DSR Item No	Description of Work	Unit	Total Qty	Rates in Rs (in Figures)	Rates in Rs (in Words)	Amount in Rs (in Figures)	Amount in Rs (in Words)
		15 mm nominal bore	each	384				
12.04	NSR	Providing and fixing 2 way bib cock of approved quality and colour including all fittings						
		15 mm nominal bore	each	200				
12.05	18.11	Providing and fixing G.I Pipes complete with G.I fittings and clamps i/c making good the walls ets.Concealed pipe including painting with anti corrosive bitumastic paint, cutting chases and making good the wall.						
	18.11.1	15 mm dia. nominal bore	metre	700				
12.06	18.12	Providing and fixing G.I. Pipes complete with G.I. Fittings including trenching and refilling etc.						
	18.12.2	20 mm dia. nominal bore	metre	50				
	18.12.4	32 mm dia nominal bore	metre	100				
12.07	18.10	Providing and fixing G.I. pipes complete with G.I. fittings and clamps,i/c cutting and making good the walls etc.						
	18.10.1	15 mm dia. nominal bore	metre	400				
	18.10.2	20 mm dia. nominal bore	metre	1400				
	18.10.4	32 mm dia nominal bore	metre	500				
12.08	18.46	Providing and fixing G.I. Union in G.I. pipe including cutting and threading the pipe and making long screws etc. complete (New work) :						
	18.46.1	15 mm nominal bore	each	200				
	18.46.2	20 mm nominal bore	each	100				

Sl. No.	DSR Item No	Description of Work	Unit	Total Qty	Rates in Rs (in Figures)	Rates in Rs (in Words)	Amount in Rs (in Figures)	Amount in Rs (in Words)
	18.46.3	25 mm nominal bore	each	100				
	18.46.4	32 mm nominal bore	each	150				
12.09	18.17	Providing and fixing gun metal gate valve with C.I. Wheel of approved quality (screwed end) :						
	18.17.2	32 mm nominal bore	each	12				
12.10	18.18	Providing and fixing ball valve (brass) of approved quality, high or low pressure, with plastic floats complete :						
	18.18.2	20 mm nominal bore	each	5				
12.11	18.21	Providing and fixing unplasticised PVC connection pipe with brass unions :						
	18.21.2	45 cm length						
	18.21.2.1	15 mm nominal bore	each	600				
12.12	18.58	Providing and fixing PTMT grating of approved quality and colour.						
	18.58.1	Circular type						
	18.58.1.2	125 mm nominal dia with 25 mm waste hole	each	200				
		Water Supply Sub Head Total						
13		Sub Head-XIII :- Drainage						

Sl. No.	DSR Item No	Description of Work	Unit	Total Qty	Rates in Rs (in Figures)	Rates in Rs (in Words)	Amount in Rs (in Figures)	Amount in Rs (in Words)
13.01	19.1	Providing, laying and jointing glazed stoneware pipes grade 'A' with stiff mixture of cement mortar in the proportion of 1:1 (1cement : 1 fine sand) including testing of joints etc. complete :						
	19.1.1	100 mm dia meter	metre	20				
		Drainage Sub Head Total						
14		Sub Head-XIV Water Proofing						
14.01	22.3	Providing and laying Water proofing treatment to vertical and horizontal surfaces of depressed portions of W.C., kitchen and the like consisting of :						
		i) 1st course of applying cement slurry @4.4 kg /sqm mixed with Water proofing compound conforming to IS : 2645 in recommended proportions including rounding off junction of vertical and horizontal surface.						
		ii) 2nd course of 20 mm cement plaster 1:3 (1 cement : 3 coarse sand) mixed with Water proofing compound in recommended proportion including rounding off junction of vertical and horizontal surface.						
		iii) 3rd course of applying blown or residual bitumen applied hot at 1.7 kg per sqm of area.						
		iv) 4th course of 400 micron thick PVC sheet (Overlaps at joints of PVC sheet should be 100 mm wide and pasted to each other with bitumen @ 1.7 Kg/sqm.).	sqm	400				
14.02	NSR	P/L cinder Filling in Sunkun Portion of Toilet & Kitchen.	CUM	150				
		Water Proofing Sub Head Total						
		Total Amount						

PROJECT: SETTING UP OF RESIDENTIAL COMPLEX AT AIIMS RISHIKESH								
(SH: BALANCE BUILDING WORKS-NURSES HOSTEL)								
ELECTRICAL WORKS-BOQ								
Sr. No.	DSR-13/ NSR	Description Of Items	Unit	Total Qty.	Rates in Rs (in Figures)	Rates in Rs (in Words)	Amount in Rs (in Figures)	Amount in Rs (in Words)
1.0		Sub Head-I :- (Wiring, Switch & Socket)						
1.1	1.10	Wiring for light/ fan/ Exh. Fan/ call bell pt. with 1.5 Sq.mm. FRLS PVC insulated Copper Conductor single core cable in surface/recessed medium class PVC Conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm. FRLS PVC insulated copper conductor single core cable etc as required						
1.1.1	1.10.3	Group C	Point	490				
1.2	NSR	Staircase/Corridor lighting /Light point						
1.2.1	NSR	Wiring for light point with 1.5 Sq.mm. FRLS PVC insulated copper conductor with modular switch etc. (for stair case light point)	Point	12				
1.2.2	1.24	Supplying & fixing following modular switch/Socket on the existing modular plate and Switch box including connections but, excluding modular plate as required						
	1.24.1	5/6Amps Switch	Each	1428				
1.2.3	1.28	Supplying & fixing following modular base and cover plate on existing modular metal boxes etc as required						
	1.28.1	1 or 2 Module	Each	828				
	1.28.2	3 Module	Each	408				
	1.28.3	4 Module	Each	276				
	1.28.5	8 Module	Each	12				

Sr. No.	DSR-13/ NSR	Description Of Items	Unit	Total Qty.	Rates in Rs (in Figures)	Rates in Rs (in Words)	Amount in Rs (in Figures)	Amount in Rs (in Words)
1.3	1.12	Wiring for light/power plug with 2 x 4 sq.mm.FRLS PVC insulated copper conductor single core cable in surface/recessed PVC conduit along with 1 No. 4 sq.mm FR PVC insulated copper conductor single core cable for loop earthing as required	Metre	2950				
1.4	1.14	Wiring for circuit/sub-main wiring along with earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface / recessed PVC conduit as required.						
1.4.1	1.14.1	2x1.5 Sq.mm. + 1x1.5 Sq.mm. earth wire (Light Circuit)	Metre	1300				
1.4.2	1.14.4	2x6 Sq. mm. + 1x6 Sq.mm. earth wire (Geyser)	Metre	1862				
1.4.3	1.14.5	2x10 Sq.mm. + 1x10 Sq.mm. earth wire (Submain)	Metre	45				
1.4.4	1.14.10	4x10 Sq.mm. + 2x10 Sq.mm. earth wire (Submain)	Metre	1760				
1.5	1.18	Supplying and drawing following pair 0.5 sq.mm. FRLS PVC insulated copper conductor, unmounted telephone cable in the existing surface/ recessed steel /PVC conduit as required,						
1.5.1	1.18.2	2 Pair	Metre	5985				
1.6	1.19	Supplying and drawing Co-axial TV Cable RG-6 Grade, 0.7mm Solid Copper Conductor PE Insulated Shielded with fine Tinned Copper Braid and protected with PVC sheet in the existing Surface /Recessed PVC conduit as required.	Metre	14750				

Sr. No.	DSR-13/ NSR	Description Of Items	Unit	Total Qty.	Rates in Rs (in Figures)	Rates in Rs (in Words)	Amount in Rs (in Figures)	Amount in Rs (in Words)
1.7	1.21	Supplying & fixing of following size of PVC conduit along with accessories in recess/ surface including cutting the wall and making good the same in case of recessed conduit as required.						
1.7.1	1.21.1	20mm	Metre	150				
1.7.2	1.21.2	25mm	Metre	550				
1.7.3	1.21.3	32mm	Metre	500				
1.8	1.24	Supplying and fixing following modular switch/socket on the existing Modular Plate & Switch Box including connections but excluding Modular plate etc. as required.						
1.8.1	1.24.6	Telephone Socket Outlet	Each	182				
1.8.2	1.24.7	TV Antenna Socket Outlet	Each	174				
1.9	1.25	Supplying & fixing stepped type electronic fan regulator on the existing modular plate switch box including connections but excluding modular plate as required.	Each	216				
1.10	1.27	Supplying & fixing following size / modules GI box along with modular base & cover plate for modular switches in recess etc.						
1.10.1	1.27.1	1 or 2 Module (75 mm x 75 mm)	Each	358				

Sr. No.	DSR-13/ NSR	Description Of Items	Unit	Total Qty.	Rates in Rs (in Figures)	Rates in Rs (in Words)	Amount in Rs (in Figures)	Amount in Rs (in Words)
1.11	1.31	Supplying & fixing suitable size GI box with modular plate & cover in front on surface or in recess, including providing & fixing 3 pin 5/6amps modular socket outlet and 5/6amps modular switch, connection etc as required (for light plug to be used in non residential buildings)	Each	206				
1.12	1.32	Supplying & fixing suitable size GI box with modular plate & cover in front on surface or in recess, including providing & fixing 6 pin 5/6 amps and 15/16 amps modular socket outlet and 15/16 amps modular switch, connection etc as required	Each	246				
		Wiring, switch & Socket Sub Head Total						
2.0		Sub Head - II (Fittings)						
2.1		Supplying Prewired fluorescent fitting/compact fluorescent light fitting surface type store enameled control gear duly wired complete with electronic choke, rotor, starter, starter holder, condensor, end plates/retainers etc. ready to use complete as required.						
2.1.1	NSR	1 x 28 watt TL-D Box type mounting rail similar to Philips cat no. TCH 128	Nos	247				
2.1.2	NSR	2 x 18 W PL-C lamp ceiling luminaire with mirror optics similar to Philips cat no. FCS 518/218	Nos.	516				
2.1.3	NSR	Wall bracket with ABS mounting with polycarbonate ring suitable for 1x13 W cat. 05 kl Decon, décor or ecotone CFL lamp as required.	Nos.	284				
2.1.4	NSR	Bulkhead luminaire suitable for use with 11 watt CFL complete with single piece pressure die cast aluminium housing & cover frame complete with heat resistant toughened frosted glass cover etc, complete similar to Philips cat no. FXC 101	Nos.	12				
2.1.5	NSR	Wall mounting luminaire suitable for 1X 11 watt CFL similar to Philips cat. No. FMS 200/111	Nos.	204				

Sr. No.	DSR-13/ NSR	Description Of Items	Unit	Total Qty.	Rates in Rs (in Figures)	Rates in Rs (in Words)	Amount in Rs (in Figures)	Amount in Rs (in Words)
2.1.6	NSR	Supplying and Fixing 18 W, 4 pin, PL-C lamp in existing ceiling luminaire .	Nos.	515				
2.2	1.35	Erection of wall bracket / ceiling fittings of all sizes and shapes containing upto two GLS lamps per fitting, complete with all accessories including connection etc as required.	Each	1016				
2.3	1.41	Installation, testing and commissioning of pre-wired, fluorescent fitting/ compact fluorescent fitting of all types, complete with all accessories and tube etc. directly on ceiling / wall , including connection with 1.5 sq. mm. FR PVC insulated, copper, conductor, single core cable and earthing etc as required.	Each	247				
2.4	1.45	Installation, testing and commissioning of ceiling fan, including wiring the down rods of standard length (upto 30 cm) with 1.5 sq. mm FR PVC insulated, copper conductor, single core cable, including providing and fixing phenolic laminated sheet cover on the fan box etc. as required.	Each	218				
2.5	1.49	Numbering of ceiling fan / exhaust fan / fluorescent fittings as required.	Each	1449				
2.6	1.50	Installation of exhaust fan upto 450 mm sweep in the existing opening, including making the hole to suit the size of the above fan, making good the damage, connection, testing, commissioning etc as required.						
2.6.1	1.50.1	Up to 450 mm Sweep	Each	209				
2.7	1.51	Extra for fixing louvers and shutters complete with frame for exhaust fan of all sizes.	Each	9				

Sr. No.	DSR-13/ NSR	Description Of Items	Unit	Total Qty.	Rates in Rs (in Figures)	Rates in Rs (in Words)	Amount in Rs (in Figures)	Amount in Rs (in Words)
2.8	NSR	Supplying of exhaust fan 200 mm sweep similar to clean air DLX passion (Polar) complete with lovers etc. as required.	Nos.	200				
2.9	NSR	Supplying of metal type ventilating fan 450 mm sweep complete with mounting ring, blades etc. complete as required.	Nos.	9				
2.10	NSR	Supplying of white colour blade ceiling fan of following sizes capacitor type complete with down rod canopies hanging shackles, blades, without regulator suitable for use on 220/240 volts 50 Hz single phase A.C. Supply conforming to IS 374/1979.						
2.10.1		1200 mm sweep	Nos.	218				
		Fittings Sub Head Total						
3.0		Sub Head - III (Distribution)						
3.1	2.8	Supplying and fixing following way, Prewired TP & N MCB distribution board of steel sheet for 415 volts, on surface/recess, complete with loose wire box terminal connectors for all incoming & outgoing circuits duly prewired with suitable size FRLS PVC insulated copper conductor upto terminal blocks, tinned copper busbar, neutral link, earth bar, din bar, detachable gland plate, interconnections, powder painted including earthing etc as required. (But without MCB/ RCCB/ Isolator)						
3.1.1	2.8.5	4 way (4+12), Double door	Each	2				
3.1.2	2.8.7	8 way (4+24), Double door	Each	35				

Sr. No.	DSR-13/ NSR	Description Of Items	Unit	Total Qty.	Rates in Rs (in Figures)	Rates in Rs (in Words)	Amount in Rs (in Figures)	Amount in Rs (in Words)
3.2	2.10	Supplying and fixing 5 amps to 32 amps rating, 240/415 volts, 'C' curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc as required.						
3.2.1	2.10.1	Single pole	Each	1028				
3.3	2.13	Supplying and fixing following rating, double pole , 240 volts, isolator in the existing MCB DB complete with connections, testing and commissioning etc as required						
3.3.1	2.13.1	40 amps	Each	5				
3.3.2	2.13.2	63 amps	Each	34				
3.4	2.18	Supplying and fixing 20 amps, 240 volts, SPN industrial type, socket outlet, with 2 pole and earth, metal enclosed plug top along with 20 amps, 'C' series, SP MCB, in sheet steel enclosure, on surface or in recess, with chained metal cover for the socket outlet and complete with connections, testing and commissioning etc as required.	Each	200				
3.5	NSR	Supplying and fixing 6 amp Double pole MCB 10kA rating in a G.I. box complete as required (for Lift)	Nos.	2				
3.6	NSR	Supplying and laying/ Testing/ Commissioning of 4 x 25 sqmm 1.1 KV grade XLPE armoured aluminium conductor cable on surface/Pipe complete with gland/ Thimble as required.	Nos.	250				
		Distrubution Sub Head Total						
4		Sub Head - IV (Earthing)						

Sr. No.	DSR-13/ NSR	Description Of Items	Unit	Total Qty.	Rates in Rs (in Figures)	Rates in Rs (in Words)	Amount in Rs (in Figures)	Amount in Rs (in Words)
4.1	5.4	Earthing with G.I. earth plate 600 mm X 600 mm X 6 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. with charcoal/ coke and salt as required.	Set	6				
4.2	5.12	Providing and laying earth connection from earth electrode with 6 SWG dia G.I. wire in 15 mm dia G.I. pipe from earth electrode as required.	Metre	200				
4.3	5.17	providing and fixing 4.00 mm dia copper wire on surface or in recess for loop earth along the existing conduit/submain/ cable as required.	Metre	320				
		Earthing Sub Head Total						
		Total						