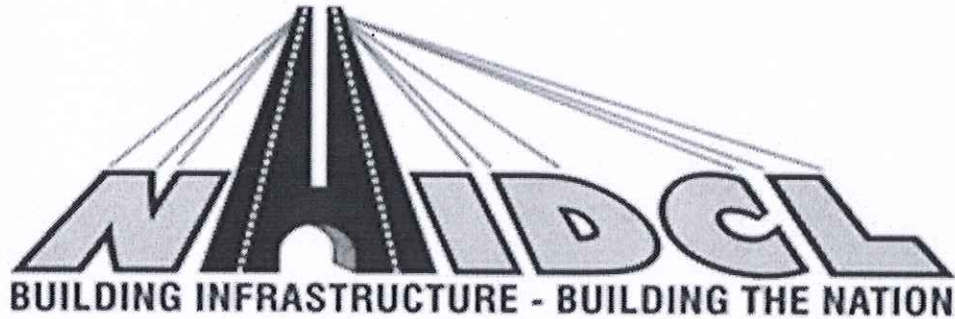


**NATIONAL HIGHWAY AND INFRASTRUCTURE  
DEVELOPMENT CORPORATION LIMITED**



**Ministry of Road Transport & Highways, (Govt. of India)**

**National Competitive Bid**

(Through CPP Portal, E-Tendering Mode)

**For**

**“Construction of Observation Home cum Special Home including Civil,  
Furniture, Electrical, PHE, Fire fighting, CCTV, Access Control, other services at  
Kargil in the Union Territory of Ladakh”**

**Through EPC Contract**

**O/o Executive Director (Projects)**

**National Highways & Infrastructure Development Corporation Ltd  
Regional Office, Ladakh Yartsa House, Near Changspa Farm, Leh -194101,  
Ladakh**

Corporate Head Quarters

National Highways & Infrastructure Development Corporation Ltd

3rd floor, PTI Building, 4-Parliament Street, New Delhi – 110001

CIN No: U45400DL2014GOI269062

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**PART A**

**TO BE UPLOADED BY THE BIDDER ALONG WITH FINANCIAL BID**

**SECTION-I**

**NOTICE INVITING TENDER**

## Notice Inviting Tender (NIT)

**Tender No: NHIDCL/Infra/Ladakh/2022/**

**Dated:30.04.2022**

**RFP No.: 18/RO-Ladakh/2022-23**

The Ministry of Road Transport & Highways through National Highways & Infrastructure Development Corporation Limited (NHIDCL) is engaged in the development of National Highways and Infrastructure works. NHIDCL RO-Ladakh for and on behalf of Director, Social & Tribal Welfare Department, Union Territory of Ladakh invites **"Online Tenders" on "EPC Mode"** from experienced and competent bidders, meeting prescribed eligibility criteria as mentioned in tender document.

Details of the work;

Name of the work	Estimated Cost (Exclusive of GST)	Completion Period	Defect Liability Period
<b>"Construction of Observation Home cum Special Home including Civil, Furniture, Electrical, PHE, Fire fighting, CCTV, Access Control, other services at Kargil in the Union Territory of Ladakh"</b>	10,80,72,000/-	<b>14 months</b>	<b>One Year</b>

The complete BID document can be viewed from official portal of the CPPP website <https://eprocure.gov.in/eprocure> and website [www.nhidcl.com/tenders](http://www.nhidcl.com/tenders). The intending Bidder can download the tender, and must submit the technical bid and financial Bid at <https://eprocure.gov.in/eprocure> only. The Updates/Corrigendum/Addendum shall be followed up to submission of tender and it will be the part of tender. The notifications on updates/Corrigendum/Addendum will only be notified in <https://eprocure.gov.in/eprocure>. The following Date schedule is to be followed for this project:

Sr. No.	Particulars	Date
1	Bid Document Download/ Start Date	30.04.2022
2	Clarification /Pre bid queries Start Date	30.04.2022
3	Clarification /Pre bid queries End Date	06.05.2022 (1100 Hrs.)
4	Pre bid meeting	07.05.2022 (1500 Hrs.)
5	Bid submission Start date	07.05.2022
6	Bid submission End date	30.05.2022 (1100 Hrs.)
7	Opening date of Technical Bids	31.05.2022 (1100 Hrs.)

The complete BID document can be viewed / downloaded from official portal of the CPPP website <https://eprocure.gov.in/eprocure/app> from 30/04/2022 to 30/05/2022 (upto 1100 hrs IST). Bidder must submit its Technical bid and Financial Bid at <https://eprocure.gov.in/eprocure/app> on or before 30/05/2022 (up to 1100 hrs IST)

The Instructions to bidder is attached with this NIT which shall be a part of RFP and the contract agreement. Please note that the NHIDCL reserves the right to accept or reject all or any of the BIDs without assigning any reason whatsoever.



Col. Rajeev Kumar (Retd.)  
Executive Director (P)  
NHIDCL RO-Ladakh, Yartsa  
House near Changspa, Leh,  
UT of Ladakh – 194101  
Phone: 01982-295517  
E-mail: [nhidcl.leh@gmail.com](mailto:nhidcl.leh@gmail.com)

**SECTION-II**

**INSTRUCTIONS TO BIDDERS**

# INSTRUCTIONS TO BIDDERS (ITB)

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## Instructions to Bidders (ITB)

### A. General

#### **1. Name and Scope of Work:**

- 1.1. The Executing Agency (as defined in the Appendix to ITB) invites bids for “Construction of Observation Home cum Special Home including Civil, Furniture, Electrical, PHE, Fire fighting, CCTV, Access Control, other services at Kargil in the Union Territory of Ladakh”
- 1.2. Throughout these bidding documents, the terms “bid” and “tender” and their derivatives (bidder/tenderer, bid/tender, bidding/tendering, etc.) are synonymous.

#### **2. Source of Funds**

- 2.1. The expenditure on this project will be provided by the Director, Social & Tribal Welfare Department, Government of UT of Ladakh to the National Highways & Infrastructure Development Corporation Limited (NHIDCL).

#### **3. Eligible Bidders**

- 3.1. **For the registered government contractors:** The bid is open to contractors who are registered in the appropriate class with the government departments in CPWD/AIR/Railways/MES/BRO/ and PSU’s of state and Central Governments such as BSNL, NHPC, NBCC etc. in the Public works Departments of state governments, Union Territories and its allied departments viz. Roads and Buildings, Irrigation, Public Health etc.
- 3.2. **For the non-registered contractors:** Bidder may be an individual, private entity, sole or partnership firm, company incorporated and registered in India, having prior experience of executing RCC Building or any RCC infrastructure works, are eligible for bidding for this work.
- 3.3. Bidders shall not be under a declaration of ineligibility for corrupt and fraudulent practices by the Central Government, the State Government or any public undertaking, Autonomous body, authority by whatever name called under the Central or the State Government.  
The eligible bidders at 3.1 and 3.2 above shall scan and upload the documents stated under Clause 11.2 as per their category to participate in the technical bid.

#### **4. One Bid per Bidder**

- 4.1. Each Bidder shall submit only one Bid for the work. A Bidder who submits more than one Bid will cause the proposals with the Bidder's participation to be **disqualified**.

#### **5. Cost of Bidding**

- 5.1. The Bidder shall bear all costs associated with the preparation and submission of his Bid, and the Executing Agency will, in no case, be responsible or liable for those costs.

#### **6. Site/Drawings details**

- 6.1. i) The site for the work is available.  
ii) The conceptual/indicative Architectural Drawings, Structural Drawings, MEP, location of CCTV, Access control, Fire safety plan etc. drawings are available  
**Note 1:** The work under this NIT is to be taken up in EPC mode. The successful bidder after signing of the contract agreement shall submit all the architectural and structural drawings, MEP, etc from his end and it is the responsibility of the bidder to take up the design of entire building viz. Architectural, Structural works. The drawings submitted by the successful bidder shall not be inferior in all respect of the conceptual/indicative drawings attached with the NIT.  
**Note 2:** The bidder may with the approval of the executing agency and the employer can adopt the conceptual/indicative drawings uploaded with the NIT for execution. Notwithstanding the approval from the executing agency, the final responsibility of the design of project rests with the successful bidder. The successful bidder will have to ensure the soundness of the Architectural Drawings by vetting/obtaining necessary approval from the statutory bodies,

soundness of the structural drawings by vetting through premium institutes such as IIT/NIT or other Govt Institutes with prior approval of Engineer-in-charge.

**Note 3:** In the case of adopting the conceptual/indicative drawings by the successful bidder with the approval of the executing agency/ employer a prescribed amount as determined by the executing agency shall be paid by the successful bidder. Notwithstanding to payment of this amount, the successful bidder shall however be responsible for these conceptual/indicative drawings as stated in Note 2 above.

- 6.2. The Bidder, at his own cost, responsibility and risk, is encouraged to visit, examine and familiarise himself with the Site of Works and its surroundings including source of earth, water, road aggregates etc. and obtain all information that may be necessary for preparing the Bid and entering into a contract for construction of the Works. The costs of visiting the Site shall be at the Bidder's own expense. He may contact the person whose contact details are given in the Appendix to ITB.
- 6.3. The structural drawings including the foundation type proposed attached with this document is indicative. The contractor has to collect site contours, conduct the Soil Investigation before the start of the work (as mentioned in payment schedule) and shall ascertain the bearing capacity of the soil and accordingly the foundation design along with structural design is to be prepared, vetted by the like IIT/NIT other Govt Institute (Approved by Engineer-in-charge) and shall obtain the approval from the Engineer-in-charge before start of the work. The soil investigation report should have photographs/videography while conducting field tests with field report countersigned by authorized representative of Engineer-in-charge.

## **B. Bidding Documents**

### **7. Content of Bidding Documents**

- 7.1. The bidder is expected to examine the Schedule of Quantities enclosed with bid document, tender drawings, Technical and Particular specifications, Finishes Matrix, contract conditions and special conditions of contract and access the site locations and include all transportation and miscellaneous cost while quoting the bid. The bill of quantities enclosed is indicative and it is the responsibility of the bidders to work out all quantities and their costs involved in the project and quote for the bid. **As the contract is on EPC mode , the selected contractor is required to deliver the project as per approved drawings & contract in all respects and nothing extra shall be payable beyond the quoted amount, except otherwise specified in relevant clauses of contract if any in the contract clauses.**
- 7.2. The bidder is expected to examine carefully all instructions, conditions of contract, contract data, forms, terms, and specifications, bill of quantities, forms and drawings in the Bid Document. Failure to comply with the requirements of Bid Documents shall be at the bidder's own risk. Pursuant to clause 22 hereof, bids, which are not substantially responsive to the requirements of the Bid Documents, shall be **rejected**.

### **8. Clarification of Bidding Documents**

- 8.1. A prospective Bidder requiring any clarification on the bid document may notify the Executing Agency in writing or by e-mail (scanned copy) at the Executing Agency's address indicated in the Notice Inviting Tender. The Executing Agency will respond to any request for clarification received earlier than 7 days prior to the deadline for submission of bids. Copies of the Executing Agency's response will be hosted on website or which are required in the opinion of the Executing Agency including a description of the enquiry, but without identifying its source.

### **9. Amendment of Bidding Documents**

- 9.1. Before the deadline for submission of bids, the Executing Agency may modify the bidding documents by issuing addenda.
- 9.2. Any addendum thus issued shall be part of the bidding documents and shall be hosted on the NHIDCL website/e-procurement portal only.
- 9.3. To give prospective bidders reasonable time in which to take an addendum into account in preparing their bids, the Executing Agency shall extend, as necessary, the deadline for submission of bids, in accordance with Clause 17.

## C. Preparation of Bids

### 10. Language of Bid

10.1. All documents relating to the Bid shall be in English and all correspondence would be in the same language.

### 11. Documents Comprising the Bid

11.1. The e-bid submitted by the bidder shall be in two separate parts.

Part-I: Technical Bid

Part-II: Financial Bid.

11.2. **A) Technical Bid:** The intending bidders must read the terms & conditions of tender documents carefully. The Technical Bid shall be uploaded with scanned copies of following documents. All the documents must be Serial wise as stated below along with check list.

**For the registered government contractors:**

Sr. No.	Particular of Document	Yes	No
1	Letter of Application on bidder's original letter Head to submit Technical Bid as per Annexure-A		
2.	Receipt of Bid Document Cost		
3.	Qualification Information (SECTION- III)		
4.	The enlistment certificate in the appropriate class in which the bidder is registered with the concerned department. The enlistment of the contractor should be valid on the last date of submission of Bid (Note: In case the last date of submission of bid is extended the enlistment of contractor should be valid on the original date of submission of bid.)		
5.	Proof of Payment of Bid Security.		
6.	<b>Experience certificate</b> in works of a similar nature and size for each of the last Seven years (ending previous day of last day of submission of bids) with certificates from the concerned officer of the minimum rank of Executive Engineer-in-Charge or equivalent; One similar completed work* costing not less than amount equals to <b>80% of estimated cost put to tender.</b>  <b>or</b> Two similar completed works* costing not less than amount equals to <b>60% of estimated cost put to tender.</b>  <b>or</b> Three similar completed works* costing not less than amount equals to <b>40% of estimated cost put to tender.</b> (*The "similar work" means Construction of RCC buildings or any other RCC infrastructure work viz. commercial/residential/office comple/industrial) Note: The value of executed work 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 submission of bids.		
7.	Bidder shall submit Information regarding litigation or arbitration history during the last five years as per format given in Qualification Information point 6.		
8.	Bidder shall submit affidavit on the Stamp Paper, duly attested from the Notary Public that the information furnished with the bid documents is correct in all respects as per format given in Annexure-C.		
9.	Bidder shall submit Undertakings as per Annexure –D.		

**For the non-registered contractors with government Department:**

Sr. No.	Particular of Document	Yes	No
1.	Letter of Application on bidder's original letter Head to submit Technical Bid as per Annexure-A		
2.	Receipt of Bid Document Cost		
3.	Qualification Information (SECTION-III)		
4.	Power of Attorney as per Annexure-E		
5.	Proof of Payment of Bid Security		
6.	Scanned copy of Original document of Registration Certificate (defining the constitution or legal status, ownership details, place of registration, and principal place of business)		
7.	<p><b>Experience certificate</b> in works of a similar nature and size for each of the last Seven years (ending previous day of last day of submission of bids) with certificates from the concerned officer of the minimum rank of Executive Engineer-in-Charge or equivalent; One similar completed work* costing not less than amount equals to <b>80% of estimated cost put to tender.</b></p> <p style="text-align: center;"><b>or</b></p> <p>Two similar completed works* costing not less than amount equals to <b>60% of estimated cost put to tender.</b></p> <p style="text-align: center;"><b>or</b></p> <p>Three similar completed works* costing not less than amount equals to <b>40% of estimated cost put to tender.</b> (*The "similar work" means Construction of RCC buildings or any other RCC infrastructure work viz. commercial/residential/office comple/industrial) Note: The value of executed work 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 submission of bids.</p>		
8.	Turnover: Average annual Turnover (in all classes of Civil Engineering construction/ fabrication works only) should be at least 20% of estimated cost of work i.e. during last three-year ending 31st March of the previous financial years duly certified by Chartered Accountant (as per Annexure-F). If the financial statement has not been audited than provide provisional turnover certificate of the previous year duly certified by the Chartered Accountant in respect of ibid compliance.		
9.	Net Worth: Net Worth should be at least 5% (five percent) of the Estimated Cost at the close of the preceding financial year duly certified by Chartered Accountant (as per Annexure –G). If the financial statement has not been audited than provide provisional Net Worth certificate of the previous year duly certified by the Chartered Accountant in respect of ibid compliance.		
10.	Bidder shall submit Information regarding litigation or arbitration history during the last five years as per format given in Qualification Information point 6.		
11.	Bidder shall submit affidavit on the Stamp Paper, duly attested from the Notary Public that the information furnished with the bid documents is correct in all respects as per format given in Annexure-C.		
12.	Bidder shall submit Undertakings as per Annexure –D.		
13.	Scanned copy of GST and PAN Registration		

### **Financial Bid (Applicable to both registered and non-registered government contractors)**

To be submitted online on GoI e-tendering portal (<https://eprocure.gov.in/cppp>) on or before Schedule time given in NIT/Appendix to ITB.

- 11.3. Bids from joint venture (JV) are allowed. Maximum numbers of JV partners permitted are 03 (three). Lead Partner should qualify 40% of all criteria and each JV partner to qualify 20% of all. Jointly the JV must qualify 100% of all criteria.
- 11.4. The following documents forms the entire bid and the contract document. The bidders are informed that the following documents which are uploaded with the RFP are uploaded for information and for the purpose of understanding of the nature and scope of work for the bidders. The documents will form part of the bid and subsequently part of the contract agreement with the successful bidder.

<b>Sections</b>	<b>Particular</b>
Section VIII	Conditions of Contract and Contract Data Including Annexures
Section IX	Scope of Work & Technical Specifications
Section X	Particular Specifications
Section XI	List of Approved Makes of Materials
Section XII	Finishes Matrix

### **12. Bid Prices**

- 12.1. The Contract shall be on EPC mode and the quoted bid price (exclusive of GST) includes complete work as per approved drawings submitted by the Contractor for the whole Works, as described in Clause 1.1 based on the priced Bill of Quantities submitted by the Bidder.
- 12.2. **The bidder shall quote bid prices on appropriate format enclosed as part of tender document on <https://eprocure.gov.in/eprocure/app>.**
- 12.3. The bidder is required to quote the amount excluding GST. GST at the existing rate & applicable laws will be paid to the contractor along with the each bill; however, the contractor has to submit the proof of GST payment to government before next bill. In case, of non-submission of GST proof, the same will be recovered in the next bill.
- 12.4. Based on the amount quoted, the rates and prices shall be fixed for the duration of the Contract and shall not be subject to adjustment, except otherwise specified in relevant clauses of contract if any in the contract clauses.

### **13. Currencies of Bid and Payment**

- 13.1. The price shall be quoted by the bidder entirely in Indian Rupees. All payments shall be made in Indian Rupees.

### **14. Bid Validity and Bid Document Cost**

- 14.1. Bids shall remain valid for a period of **120 days** after the final deadline date for bid submission specified in Clause 17.
- 14.2. In exceptional circumstances, prior to expiry of the original time limit, the Executing Agency may request that the bidders may extend the period of validity for a specified additional period. The request and the bidders' responses shall be made in writing or by e-mail. A bidder may refuse the request without forfeiting his bid security. A bidder agreeing to the request will not be required or permitted to modify his bid, but will be required to extend the validity of his bid security for a period of the extension, and in compliance with Clause 15 in all respects.
- 14.3. The Bidder is required to pay a non-refundable fee as of Rs. 5900/- towards cost of Bid Document through RTGS/ NEFT/ other online mode to the NHIDCL's designated bank account. Details of designated bank account are as under:

<b>Sr.No.</b>	<b>Particulars</b>	<b>Details</b>
1.	Name of Beneficiary	NHIDCL ESTABLISHMENT ACCOUNT
2.	Beneficiary Bank Account No.	76513070002321

3.	Beneficiary Bank Branch Name and Address	Canara Bank (erstwhile Syndicate Bank) Leh Branch, Tsaskan Complex near LIC Office, Distt. Public library Road, Leh-194101
4.	Beneficiary Bank Branch IFSC	CNRB0017651

The Bidder must upload Copy of the online payment receipt (UTR/ Reference No. /Transaction ID) towards payment of cost of Bid document.

14.4. Any bid not accompanied by Bid document fee/cost, shall be summarily rejected by the Executing Agency as **non-responsive**.

#### 15. **Bid Security Details**

15.1. The Bidder is mandatorily required to pay an amount of Rs 21,61,400/- (2% of the estimated cost put to tender) towards the bid security through NEFT/RTGS/IMPS online mode only to the NHIDCL's designated bank account. Details of designated bank account are as under:

S.No.	Particulars	Details
1	Name of Beneficiary	National Highways & Infrastructure Development Corporation Limited NHIDCL UT Ladakh Project Account
2	Beneficiary Bank Account No.	362305000136
3	Beneficiary Bank Branch IFSC	ICIC0003623
4	Beneficiary Bank Branch Name	3623 Leh Ladakh Branch
5	Beneficiary Bank Address	ICICI Bank,Leh-194101

15.2. Any bid not accompanied by Proof of Payment of Bid Security amount, shall be summarily rejected by the Executing Agency as **non-responsive**.

15.3. **The Bid Security will be forfeited:**

- a) if the Bidder withdraws the Bid after its submission during the period of Bid validity; or
- b) if the Bidder does not accept the correction of the bid price, pursuant to Clause 23; or
- c) in the case of a successful Bidder, if the Bidder fails within the specified time limit to
  - i. **Sign the Agreement;** and/or
  - ii. **Furnish the required Performance Security;** and/or
  - iii. **Submit the original documents as specified in Clause 11.2;**
  - iv. **Corrupt or Fraudulent Practices as specified in Contract Agreement.**

#### 16. **Alternative Proposals by Bidders**

16.1. Bidder shall submit offers that fully comply with the requirement of the bidding document including conditions of contract, conditional offer or alternate offer will not be considered further in the process of tender evaluation and the bid will be declared **non-responsive**.

### **D. Submission of Bids**

#### 17. **Schedule for Submission of Bids**

17.1. Complete E-Bid to be uploaded on e-procurement portal before due date & time as mentioned in NIT. The bidders viz. those registered with the government agencies and not registered with the government

agencies shall upload the scanned documents as enlisted under para 11.2. The bidders shall upload the technical bid and financial bid before the stipulated date and time as prescribed in NIT.

- 17.2. The Executing Agency may extend the deadline for submission of bids by issuing an amendment in accordance with Clause 9, in which case all rights and obligations of the Executing Agency and the bidders previously subject to the original deadline will then be subject to the new deadline.
- 17.3. The detailed schedule for submission of bid shall be, as given in NIT/Appendix to ITB.

#### **18. Modification and Withdrawal of Bids**

- 18.1. Bidders may modify or withdraw their e-bids before the deadline prescribed in NIT/Appendix to ITB.
- 18.2. No bid may be modified after the deadline for submission of Bids.
- 18.3. Withdrawal of a Bid between the deadline for submission of bids and the expiration of the original period of bid validity specified in Clause 14.1 above or as extended pursuant to Clause 14.2 shall result in the forfeiture of the Bid security pursuant to Clause 15.

### **E. Bid Opening and Evaluation**

#### **19. Bid Opening**

- 19.1. Bid opening shall be carried out in two stages. Firstly, 'Technical Bid' of all the bids received shall be opened on the date and time mentioned in the NIT/Appendix to ITB. 'Financial Bid' of those bidders whose technical bid has been determined to be technically responsive shall be opened on the subsequent date through online process of e-tender, which will be notified to such bidders.
- 19.2. The Executing Agency will open the "Technical Bid" of all the bids received within due date and time, in the presence of the bidders/bidders' representatives who choose to attend at the time, date and place specified in the NIT. In the event of the specified date for the submission of bids being declared a holiday for the Executing Agency, the Bids will be opened at the appointed time and location on the next working day.
- 19.3. The Executing Agency at the opening of Technical Bid, will announce the bidders' names and such other details.
- 19.4. The Executing Agency will prepare minutes of the Bid opening, including the information disclosed to those present in accordance with Clause 19.1.
- 19.5. The bids accompanied with bid security declaration will be taken up for evaluation with respect to the Qualification Information and other information furnished in para 11.2
- 19.6. As soon as possible, the Evaluation Committee will finalize the list of technically responsive bidders whose financial bids are eligible for consideration.
- 19.7. The Executing Agency shall inform the bidders, whose technical bids are found technically responsive, of the date, time and place of opening of the financial bids. The bidders so informed, or their representative, may attend the meeting of opening of financial bids.
- 19.8. The financial bids of only the technically responsive bidders will be opened. The technically responsive bidders' names, the Bid prices, the total amount of each bid and such other details as the Executing Agency may consider appropriate will be announced by the Executing Agency at the time of bid opening.
- 19.9. The Executing Agency shall prepare the minutes of the opening of the Financial Bids.

#### **20. Process to be Confidential**

- 20.1. Information relating to the examination, clarification, evaluation, and comparison of bids and recommendations for the award of a contract shall not be disclosed to bidders or any other persons not officially concerned with such process until the award to the successful Bidder has been announced. Any attempt by a Bidder to influence the Executing Agency's processing of bids or award decisions may result in the rejection of his Bid.

#### **21. Clarification of Bids and Contacting the Executing Agency**

- 21.1. To assist in the examination, evaluation, and comparison of Bids, the Executing Agency may, at his discretion, ask any Bidder for clarification. The request for clarification shall be given in writing or by email asking the tenderer to respond by a specified date, and also mentioning therein that, if the tenderer does not comply or respond by the date, his tender will be liable to be rejected. Depending on the outcome, such tenders are to be ignored or considered further. No change in prices or substance of the bid including specifications, shall be sought, offered or permitted. No post-bid clarification at the initiative of the bidder shall be entertained. The shortfall information/ documents should be sought only in case of historical documents which pre-existed at the time of the tender opening and which have not undergone change since then. So far as the submission of documents is concerned with regard to qualification criteria, after submission of the tender, only related shortfall documents should be asked for and considered.
- 21.2. Subject to clause 21.1, no Bidder shall contact the Executing Agency on any matter relating to his bid from the time of the bid opening to the time the contract is awarded. If the Bidder wishes to bring additional information to the notice of the Executing Agency, he should do so in writing.
- 21.3. Any effort by the Bidder to influence the Executing Agency in the Executing Agency's bid evaluation, bid comparison or contract award decisions may result in the rejection of the Bidders' bid.

## **22. Examination of Bids and Determination of Responsiveness**

- 22.1. During the detailed evaluation of "Technical Bids", the Executing Agency will determine whether each Bid
  - (a) meets the eligibility criteria defined in Clause 11.2;
  - (b) the required documents uploaded by the bidder are in order; and
  - (c) is substantially responsive to the requirements of the bidding documents. During the detailed evaluation of the "Financial Bids", the responsiveness of the bids will be further determined with respect to the remaining bid conditions, i.e., priced bill of quantities.

## **23. Correction of Errors.**

- 23.1. Financial Bids determined to be technically responsive will be checked by the Executing Agency for any arithmetic errors.
- 23.2. The amount stated in the Financial Bid will be corrected by the Executing Agency for the correction of errors and shall be considered as binding upon the Bidder. If the Bidder does not accept the corrected amount, the Bid will be rejected, and action will be invoked on the bidder in accordance with Clause 15.1.

## **24. Evaluation and Comparison of Financial Bids.**

- 24.1. The Executing Agency will evaluate and compare only the bids determined to be technically responsive in accordance with Clause 22.
- 24.2. In evaluating the bids, the Executing Agency will determine for each Bid the evaluated Bid price by adjusting the Bid price after making any correction for errors pursuant to Clause 23;
- 24.3. **If the Bid of the successful Bidder is unrealeastic or erratic** then an irrevocable and unconditional guarantee from a Bank should also be submitted in the same form given in Annexure-H an Additional Performance Security (**the "Additional Performance Security"**) for an amount calculated as under:
  - a) If the Bid Price offered by the Selected Bidder falls between 15% to 20% lower than Estimated Project Cost, then the Additional Performance Security shall be 10% of the Bid Price offered by the selected Bidder.
  - b) If the Bid Price offered by the Selected Bidder falls between 20% to 30% lower than Estimated Project Cost, then the Additional Performance Security shall be 20% of the Bid Price offered by the selected Bidder.
  - c) If the Bid Price offered by the Selected Bidder is lower than 30% of the Estimated Project Cost and which cannot be substantiated satisfactorily by the bidder, will be rejected as non-responsive.
  - d) This Additional Performance Security shall be treated as part of the Performance Security.
- 24.4. A bid, which is quoted unrealistically/freakishly low or high and which cannot be substantiated satisfactorily by the bidder, may be rejected as non-responsive.

## F. Award of Contract.

### 25. Award Criteria.

25.1. Subject to Clause 27, the Executing Agency will award the Contract to the Bidder whose Bid has been determined, to be technically responsive in the technical bid and who has offered the lowest financial Bid price in the financial bid.

### 26. Executing Agency's Right to accept any Bid and to reject any or all Bids

26.1. Notwithstanding Clause 30, the Executing Agency reserves the right to accept or reject any Bid, and to cancel the bidding process and reject all bids, at any time prior to the award of Contract, without thereby incurring any liability to the affected Bidder or bidders or any obligation to inform the affected Bidder or bidders of the grounds for the Executing Agency's action.

### 27. Notification of Award and Signing of Agreement.

27.1. The bidder who's Bid has been accepted will be notified of the award by the Executing Agency. The executing agency will issue the "Letter of Acceptance". The LOA will state the sum that the Executing Agency will pay to the Contractor in consideration of the execution, completion and maintenance of the works, by the Contractor as prescribed in the contract.

27.2. The letter of acceptance and subsequent issuance of letter of commencement will be a part of the contract document.

27.3. The successful bidder shall have to sign the contract agreement within 10 days of the issue of LOA by the executing agency. The executing agency will issue the letter of commencement on the date of the signing of the contract agreement which will be a part of agreement. The date of signing of the contract agreement will be treated as the date of commencement viz. the appointed date.

### 28. Performance Security.

28.1. **Within 60 (sixty) days** after signing of contract agreement, the successful Bidder shall deliver to the Executing Agency a Performance Security i.e. **Five (5%) percent of the Contract Price plus the GST applicable for this work**, valid for the period of **60 days** beyond the stipulated date of completion. The Bid security amount of the successful bidder will be refunded after 30 days from the receipt of the conformation from the bank and on the request of the successful bidder.

28.2. The bidder shall also has to pay the additional performance security if any Bid in accordance with clause 24.3 of ITB along with the performance security for the same period. The extent rules applicable in the executing agency department are binding on the successful bidder.

28.3. The performance security shall be either in the form of a Bank Guarantee in the name of the Executing Agency, from a Bank as per the details specified below or can be submitted by online mode directly into the NHIDCL's bank account as per Annexure-H. Bank Guarantee shall be accepted from Public Sector Banks or Scheduled Private Sector Banks having Net Worth of Rs. 1,000/- Crores or more as per latest annual report of the bank. Authority reserves the right to add or remove any of names bank on which BG shall be accepted based on advisory from the Government/RBI. **The BGs issued by 'Foreign Banks' and 'Banks not mentioned in the list below' shall not be accepted.** The bank garuntee can be initially taken for a period of not less than one year and shall has to be extended from time to time for the total period as mentioned in 28.1 above, incase if the bank norms do not give the Bank Garauntee for the specified period at one stretch.

**List of Public Sector Banks**

Bank of Baroda	Indian Bank	State Bank of India
Bank of India	Indian Overseas Bank	Union Bank of India
Bank of Maharashtra	Punjab National Bank	Central Bank of India
Canara Bank	Punjab & Sind Bank	UCO Bank

<b>List of Scheduled Private Sector Banks</b>		
Axis Bank Ltd.	Bandhan Bank Ltd.	CSB Bank Ltd.
City Union Bank Ltd.	DCB Bank Ltd.	Federal Bank Ltd.
HDFC Bank Ltd.	ICICI Bank Ltd.	Indusind Bank Ltd.
IDFC First Bank Ltd.	Jammu & Kashmir Bank Ltd.	Karnataka Bank Ltd.
Karur Vysya Bank Ltd.	Kotak Mahindra Bank Ltd.	Lakshmi Vilas Bank Ltd
RBL Bank Ltd.	South Indian Bank Ltd.	Tamilnadu Mercantile Bank Ltd.
Yes Bank Ltd.	IDBI Bank Ltd.	

- 28.4. Failure of the successful bidder to comply with the requirement of sub-clause 28.1 shall constitute sufficient ground for cancellation of the contract and debarment for a period of one year from the date of debarment.
- 28.5. The bid security amount paid by the all remaining unsuccessful bidders will be refunded on submission of request for the same after 30 days from the date opening of financial bids on submission of their request.

## Appendix to ITB

Clause Reference	Instructions to Bidders																								
1.1	<b>Executing Agency</b> Designation: Executive Director (P) Address: NHIDCL, RO-Ladakh, Leh Email: <a href="mailto:nhidcl.leh@gmail.com">nhidcl.leh@gmail.com</a>																								
7.1	<b>Engineer-in-Charge</b> Designation: General Manager (P) Address: NHIDCL, PMU-Infra, Leh Email: <a href="mailto:nhidcl.infraleh@gmail.com">nhidcl.infraleh@gmail.com</a>																								
14.3	<b>Bid Document Cost:</b> Rs.5,900/- (inclusive of GST)																								
15.1	<b>Bid Security Amount:</b> Rs 21,61,400/- to be paid through NEFT/RTGS/IMPS to NHIDCL account																								
20.3 & 22.1	<b>Schedule for submission of Bids:</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Sr. No.</th> <th style="text-align: center;">Particulars</th> <th style="text-align: center;">Date</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1</td> <td>Bid Document Download/ Start Date</td> <td style="text-align: center;">30.04.2022</td> </tr> <tr> <td style="text-align: center;">2</td> <td>Clarification /Pre bid queries Start Date</td> <td style="text-align: center;">30.04.2022</td> </tr> <tr> <td style="text-align: center;">3</td> <td>Clarification /Pre bid queries End Date</td> <td style="text-align: center;">06.05.2022 (1100 Hrs.)</td> </tr> <tr> <td style="text-align: center;">4</td> <td>Pre bid meeting</td> <td style="text-align: center;">07.05.2022 (1500 Hrs.)</td> </tr> <tr> <td style="text-align: center;">5</td> <td>Bid submission Start date</td> <td style="text-align: center;">07..05.2022</td> </tr> <tr> <td style="text-align: center;">6</td> <td>Bid submission End date</td> <td style="text-align: center;">30.05.2022 (1100 Hrs.)</td> </tr> <tr> <td style="text-align: center;">7</td> <td>Opening date of Technical Bids</td> <td style="text-align: center;">31.04.2022 (1100 Hrs.)</td> </tr> </tbody> </table>	Sr. No.	Particulars	Date	1	Bid Document Download/ Start Date	30.04.2022	2	Clarification /Pre bid queries Start Date	30.04.2022	3	Clarification /Pre bid queries End Date	06.05.2022 (1100 Hrs.)	4	Pre bid meeting	07.05.2022 (1500 Hrs.)	5	Bid submission Start date	07..05.2022	6	Bid submission End date	30.05.2022 (1100 Hrs.)	7	Opening date of Technical Bids	31.04.2022 (1100 Hrs.)
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33.1	Performance Security: <b>Five (5%)</b> percent of the Contract Price plus the GST applicable for this work.																								

**SECTION-III**

**QUALIFICATION INFORMATION**



**ii) Details of works for which bid submitted and accepted (i.e. where contract signing is pending)**

Description of works	Place & State	Name & Address of Executing Agency	Date of issue of Letter of Acceptance (LOA)	Value given in LOA	Stipulated period for completion	Value of work during completion period of work for which bids are invited
1	2	3	4	5	6	7

Upload copy of LOA

**iii) Bid capacity** (Bidder shall calculate, mention his bid capacity and enclose the supporting calculation)

A = Rs \_\_\_\_\_ Lakh (enclose the details)

B = Rs \_\_\_\_\_ Lakh (enclose the details)

**Assessed Available Bid capacity = (2.5\*N\*A – B)**

**N=1.5**

6) **Litigation/Arbitration (Applicable to contractors registered with government dept. and also contractors not registered with government dept.)**

Bidder shall submit Information regarding litigation or arbitration history during the last five years in which the Bidder is involved, the parties concerned, the disputed amount, and the matter in bidder Letter Head

Other Party /Department / Executing Agency	Cause of Dispute	Amount involved	Remarks showing Present Status

7) **Bidders should provide the following affidavits/ undertakings as per formats enclosed hereafter: - (Applicable to contractors registered with government dept. and also contractors not registered with government dept.)**

(i) Affidavit as per format given in Annexure- C

(ii) Undertaking as per format given in Annexure- D

**SECTION-IV**

**ANNEXURES**

**FORM OF LETTER OF APPLICATION**  
**(On Bidder's letter Head)**

To,  
The Executive Director (P)  
NHIDCL, RO-Ladakh  
Yartsa House, Changspa,  
Leh, UT of Ladakh-194101

Name of Work: "Construction of Observation Home cum Special Home including Civil, Furniture, Electrical, PHE, Fire fighting, CCTV, Access Control, other services at Kargil in the Union Territory of Ladakh"

Sir,  
Having examined the Bid Document, Instruction to Bidders, Qualification Information, Scope of works, etc. for the subject work. We, hereby submit our technical and financial bid for the subject work.

It is certified that the information furnished in this document is true and correct. The proposal is unconditional and unqualified. We undersigned accept that NHIDCL reserves the right to reject any or all application without assigning any reason.

Thanking you,

Yours faithfully,

(Name)  
(Authorized Signatory)  
(Official-Seal)

For and on behalf of M/s \_\_\_\_\_

**Date:**

**Mobile No.:**

**Email Id:**

**Bid Securing Declaration**

The bid security declaration is deleted in view of recent guideline from the NHIDCL headquarters and in view of restoration of payment of bid security amount.

**AFFIDAVIT**  
**(To be notarized by Notary)**

1. I, the undersigned, do hereby certify that all the statements made in the required attachments are true and correct.
2. The undersigned also hereby certifies that neither our firm M/s \_\_\_\_\_ has abandoned any work on National Highways in India nor any contract awarded to us for such works have been rescinded, during last **Five** years prior to the date of this bid.
3. The undersigned hereby authorize(s) and request(s) any bank, person, firm or corporation to furnish pertinent information deemed necessary and requested by the Department to verify this statement or regarding my (our) competence and general reputation.
4. The undersigned understand and agrees that further qualifying information may be requested, and agrees to furnish any such information at the request of the Department Project implementing agency.
5. I/ We undertake and confirm that eligible similar works have not been got executed through another contractor on back to back basis.

\_\_\_\_\_  
(Signed and sealed by an Authorized Officer of the Firm)

\_\_\_\_\_  
Title of Officer

\_\_\_\_\_  
Name of Firm

\_\_\_\_\_  
DATE

**UNDERTAKING**  
**(On Bidder's letter Head)**

I, the undersigned do hereby undertake on behalf of our firm M/s [Name of the bidder], that we shall not withdraw or modify our bid during the period of validity from the bid submission date.

I, on behalf of the bidder, [Name of the bidder], also accept the fact that in case the bid is withdrawn or modified during the period of its validity or if we fail to sign the contract in case the work is awarded to us or we fail to submit a performance security before the deadline defined in the Bid, then [Name of the bidder] will be debarred for participation in the tendering process for the works of NHIDCL and other works under other Centrally Sponsored Schemes, for a period of two year from the bid due date of this work.

\_\_\_\_\_  
(Signed and sealed by an Authorized Officer of the Firm)

\_\_\_\_\_  
Title of Officer

\_\_\_\_\_  
Name of Firm

\_\_\_\_\_  
DATE

**FORMAT FOR POWER OF ATTORNEY FOR SIGNING OF BID**  
**(To be notarized by Notary)**

Know all men by these presents, We **(name of the firm and address of the registered office)** do hereby irrevocably constitute, nominate, appoint and authorize Mr./Ms (name), son/daughter/wife of **(Name)** and presently residing at **(Address)**, who is presently employed with us/the Lead Member of our Joint Venture and holding the position of **(Designation)**, as our true and lawful attorney (hereinafter referred to as the "Attorney") to do in our name and on our behalf, all such acts, deeds and things as are necessary or required in connection with or incidental to submission of our BID for the Project proposed or being developed by the National Highways & Infrastructure Development Corporation Ltd. (the "Authority") including but not limited to signing and submission of all applications, BIDs and other documents and writings, participate in Pre-BID and other conferences and providing information/responses to the Authority, representing us in all matters before the Authority, signing and execution of all contracts including the agreement and undertakings consequent to acceptance of our BID, and generally dealing with the Authority in all matters in connection with or relating to or arising out of our BID for the said Project and/ or upon award thereof to us and/or until the entering into of the Contract with the Authority.

AND we hereby agree to ratify and confirm and do hereby ratify and confirm all acts, deeds and things done or caused to be done by our said Attorney pursuant to and in exercise of the powers conferred by this Power of Attorney and that all acts, deeds and things done by our said Attorney in exercise of the powers hereby conferred shall and shall always be deemed to have been done by us.

IN WITNESS WHEREOF WE, \_\_\_\_\_, THE ABOVE NAMED PRINCIPAL HAVE EXECUTED THIS POWER OF ATTORNEY ON THIS \_\_\_\_\_ DAY OF \_\_\_\_\_ 20\_\_\_\_\_.

For .....

(Signature, name, designation and address) of person authorized by Board Resolution  
(Incase of Firm/ Company)/ partner in case of

Witnesses: Partnership firm

1.

2.

Accepted

..... (Signature)

(Name, Title and Address of the Attorney)

(Notarised)

Person identified by me/ personally appeared before me/  
Attested/ Authenticated\*

(\*Notary to specify as applicable)

(Signature Name and Address of the Notary)

(Seal of the Notary)

Registration No. of the Notary

Date:.....

Notes:

- *The mode of execution of the Power of Attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executant(s) and when it is so required, the same should be under common seal affixed in accordance with the required procedure.*
- *Wherever required, the Bidder should submit for verification the extract of the charter documents and documents such as a board or shareholders' resolution/ power of attorney in favour of the person executing this Power of Attorney for the delegation of power hereunder on behalf of the Bidder.*
- *For a Power of Attorney executed and issued overseas, the document will also have to be legalised by the Indian Embassy and notarised in the jurisdiction where the Power of Attorney is being issued. However, the Power of Attorney provided by Bidders from countries that have signed the Hague Legislation Convention 1961 are not required to be legalised by the Indian Embassy if it carries a conforming Appostille certificate.*

**CERTIFICATE OF TURNOVER BY STATUTORY AUDITOR****Letter Head of the Statutory Auditor****(Giving phone number, address and email address)**

1. This certificate is being issued on the request of .....(Name of the Bidder and address) for participating in tender in respect of National Highways and Infrastructure Development Corporation of India Limited in accordance with the applicable auditing standards and guidance Note issued by the Institute of Chartered Accountant of India.

2. We M/s .....(Name of the Statutory Auditor) are statutory auditors of .....(Name of the Bidder) for the year ended 31<sup>st</sup> March 20XX (appropriate year may be filled in).

**Note 1: In case the certificate is issued by any firm other than statutory Auditors of a company, the form no. ADT 1.duly filed with the Registrar of Companies is attached.**

**Note 2: In cases the Bidder does not have statutory auditor, the firm of chartered accountants that audited last financial statements/books of accounts shall be treated as Statutory Auditor while in case of a company, the statutory auditor shall have same meaning as 'Auditor' defined under the Companies Act, 2013.**

3. We have obtained all relevant record and information that were necessary for providing this certificate.

4. We have read and understood the tender documents relating to financial and technical capacity (e.g. 'Turnover' and 'Net worth'), verified the standalone audited financial statements of ..... (Name of the Bidder), books of accounts and other relevant records and information as at 31<sup>st</sup> March 20XX produced before us by .....(Name of the Bidder), and on basis of such verification, information and explanation given to us, we certify as under:

S.No.	Financial year	Turnover (₹ In lakh)
1	Year 1 (2020-2021)	
2	Year2 (2019-2020)	
3	Year 3 (2018-2019)	

**In case financial statements of the latest financial year are not audited and therefore, the bidder cannot make it available, the bidder shall provide an undertaking to this effect and statutory auditor shall certify the same. In such case, the bidder shall provide the audited financial statements for five years immediately preceding the year for which the audited annual report is not being produced as specified in the RFP. In case,undertaking duly certified by statutory auditor is not submitted under such circumstances, the annual turnover for the year for which audited annual financial statements are not available shall be considered as 'Nil' for the purposes of arriving at the average annual turnover.**

5. Annual Turnover updated to the price level of the year, based on factors indicated in table xxx of the tender documents, is given below:

Year	Year-1	Year-2	Year-3	Year-4	Year-5
Updation factor	1.00	1.05	1.10	1.15	1.20
Actual Turnover (₹ In lakh)					
Updated Turnover (₹ In lakh)					

**Average Updated Turnover (to the price level of the year) = ..... (₹ In lakh)**

6. This is also certified that the Calculation of turnover is based on **standalone financial statements** of .....(Name of the Bidder) prepared in conformity with applicable Accounting Standards and it does not include any component of indirect tax like GST.

7. This is also certified that the that turnover mentioned in para 5 is in individual capacity of .....(Name of the Bidder) and its share in the Joint Venture where the work had been executed jointly with other party/parties and such

a joint venture is not a separate legal entity. Further, the above turnover does not include any turnover related to joint venture or subsidiary having a separate legal entity.

8. This is also certified that turnover mentioned in para 5 is in respect of execution of construction/ civil /Engineering activities and does not include any trading activity of .....(Name of the Bidder).

**For XYZ & Associates**  
**Chartered Accountant**  
**(FRN: .....)**

**Name of CA: .....**  
**Partner/Proprietor Membership No.: .....**  
**Place: .....**  
**Date: .....**  
**UDIN: .....**

**Letter Head of the Statutory Auditor**  
(Giving phone number, address and email address)  
**CERTIFICATE OF NET WORTH BY STATUTORY AUDITOR**

1. This certificate is being issued on the request of .....(Name of the Bidder and address) for participating in tender in respect of National Highways and Infrastructure Development Corporation of India Ltd. in accordance with the applicable auditing standards and guidance Note issued by the Institute of Chartered Accountant of India.

2. We M/s ..... (Name of the Statutory Auditor) are statutory auditors of .....(Name of the Bidder) for the year ended 31<sup>st</sup> March 20XX (appropriate year may be filled in).

**Note 1: In case the certificate is issued by any firm other than statutory Auditors of a company, the form no. ADT 1.duly filed with the Registrar of Companies is attached.**

**Note 2: In cases the Bidder does not have statutory auditor, the firm of chartered accountants that audited last financial statements/books of accounts shall be treated as Statutory Auditor while in case of a company, the statutory auditor shall have same meaning as 'Auditor' defined under the Companies Act, 2013.**

3. We have obtained all relevant record and information that were necessary for providing this certificate.

4. We have read and understood the tender documents relating to financial (e.g. 'Turnover' and 'Net worth'), verified the standalone audited financial statements of ..... (Name of the Bidder), books of accounts and other relevant records and information as at 31<sup>st</sup> March 20XX produced before us by .....(Name of the Bidder), and on basis of such verification, information and explanation given to us, we certify that Net Worth of .....(Name of the Bidder) as on 31 March 20XX has been computed strictly in compliance with the provision of clause 2.2.2.9(ii) of the RFP documents of the NHIDCL and as under:

Sr. No.	Particulars	Amount (₹ in lakh)	Remarks
1	Paid of Equity Share Capital (This does not include advance against equity and application money pending allotment)		
2	Reserves and Surpluses (Other equity in case of Financial Statements are prepared under Ind AS) created out of profits)		
2.1	Accumulated Profits		
2.2	Share/Security premium		
2.3	Other Reserves		
	Total		
	Less Accumulated losses, if any		
	Less Miscellaneous expenditure to the extent not written off or adjusted		
	Less Deferred Revenue Expenditure, if any		
	Less write back of depreciation, if any		
	Less any other reserve created out of profits like amalgamation, capital restructuring, first time adoption of Ind AS or debt restructuring prior to full settlement of debts.		

5. This is certified that the Calculation of Net worth is based on **standalone financial statements** of .....(Name of the Bidder) prepared in conformity with applicable Accounting Standards and it does not include following components:

- i. Advance against equity;
- ii. Share application money, pending allotment;

- iii. Redeemable or non-redeemable Preference share capital ;
- iv. Convertible and non-convertible debentures;
- v. Revaluation Reserves;
- vi. Accumulated losses;
- vii. Write back of depreciation;
- viii. Other comprehensive income, in cases where financial statements are prepared based on Ind AS;
- ix. Reserves created from restructuring of debt etc till their settlement of debts;
- x. Deferred Tax Liabilities; and
- xi. Impact of restructuring or amalgamation of the bidder.

**For XYZ & Associates**  
**Chartered Accountant**  
**(FRN: .....)**

**Name of CA: .....**  
**Partner/Proprietor Membership No.: .....**  
**Place: .....**  
**Date: .....**  
**UDIN: .....**

**FORM OF BANK GUARANTEE**

**[Performance Security/Additional Performance Security]**

To

[National Highway and Infrastructure Development Corporation Limited]

[Yartsa House near Changspa Farm, Changspa, Leh, UT of Ladakh-194101]

WHEREAS \_\_\_\_\_ [name and address of Contractor] (hereafter called the "Contractor") has undertaken, in pursuance of Letter of Acceptance (LOA) No. Dated\_ for construction of [name of the Project] (hereinafter called the "Contract")

AND WHEREAS the Contract requires the Contractor to furnish an {Performance Security/ Additional Performance Security} for due and faithful performance of its obligations, under and in accordance with the Contract, during the {Construction Period/ Defects Liability Period and Maintenance Period} in a sum of Rs..... cr. (Rupees ..... Crore) (the "**Guarantee Amount**"<sup>1</sup>).

AND WHEREAS we, ..... through our branch at ..... (the "**Bank**") have agreed to furnish this Bank Guarantee (hereinafter called the "**Guarantee**") by way of Performance Security.

NOW, THEREFORE, the Bank hereby, unconditionally and irrevocably, guarantees and affirms as follows:

1. The Bank hereby unconditionally and irrevocably guarantees the due and faithful performance of the Contractor's obligations during the {Construction Period/ Defects Liability Period and Maintenance Period} under and in accordance with the Contract, and agrees and undertakes to pay to the Authority, upon its mere first written demand, and without any demur, reservation, recourse, contest or protest, and without any reference to the Contractor, such sum or sums up to an aggregate sum of the Guarantee Amount as the Authority shall claim, without the Authority being required to prove or to show grounds or reasons for its demand and/or for the sum specified therein.
2. A letter from the Authority, under the hand of an officer not below the rank of [Offg. Executive Director, of National Highways & Infrastructure Development Corporation Limited], that the Contractor has committed default in the due and faithful performance of all or any of its obligations under and in accordance with the Contract shall be conclusive, final and binding on the Bank. The Bank further agrees that the Authority shall be the sole judge as to whether the Contractor is in default in due and faithful performance of its obligations during and under the Contract and its decision that the Contractor is in default shall be final and binding on the Bank, notwithstanding any differences between the Authority and the Contractor, or any dispute between them pending before any court, tribunal, arbitrators or any other authority or body, or by the discharge of the Contractor for any reason whatsoever.
3. In order to give effect to this Guarantee, the Authority shall be entitled to act as if the Bank were the principal debtor and any change in the constitution of the Contractor and/or the Bank, whether by their absorption with any other body or corporation or otherwise, shall not in any way or manner affect the liability or obligation of the Bank under this Guarantee.
4. It shall not be necessary, and the Bank hereby waives any necessity, for the Authority to proceed against the Contractor before presenting to the Bank its demand under this Guarantee.
5. The Authority shall have the liberty, without affecting in any manner the liability of the Bank under this Guarantee, to vary at any time, the terms and conditions of the Contract or to extend the time or period for the compliance with, fulfillment and/ or performance of all or any of the obligations of the Contractor contained in the Contract or to postpone for any time, and from time to time, any of the rights and powers exercisable by the Authority against the Contractor, and either to enforce or forbear from enforcing any of the terms and conditions contained in the Contract and/or the securities available to the Authority, and the Bank shall not be released from its liability and obligation under these presents by any exercise by the Authority of the liberty with reference to the matters aforesaid or by reason of time being given to the Contractor or any other forbearance, indulgence, act or omission on the part of the Authority or of any other matter or thing whatsoever which under any law relating to sureties and guarantors would but for this provision have the effect of releasing the Bank

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<sup>1</sup> Guarantee Amount for Performance Security and Additional Performance Security shall be calculated as per Contract.

from its liability and obligation under this Guarantee and the Bank hereby waives all of its rights under any such law.

6. This Guarantee is in addition to and not in substitution of any other guarantee or security now or which may hereafter be held by the Authority in respect of or relating to the Contract or for the fulfillment, compliance and/or performance of all or any of the obligations of the Contractor under the Contract.
7. Notwithstanding anything contained hereinbefore, the liability of the Bank under this Guarantee is restricted to the Guarantee Amount and this Guarantee will remain in force for the period specified in paragraph 8 below and unless a demand or claim in writing is made by the Authority on the Bank under this Guarantee all rights of the Authority under this Guarantee shall be forfeited and the Bank shall be relieved from its liabilities hereunder.
8. The Guarantee shall cease to be in force and effect on \*\*\*\*. Unless a demand or claim under this Guarantee is made in writing before expiry of the Guarantee, the Bank shall be discharged from its liabilities hereunder.
9. The Bank undertakes not to revoke this Guarantee during its currency, except with the previous express consent of the Authority in writing, and declares and warrants that it has the power to issue this Guarantee and the undersigned has full powers to do so on behalf of the Bank.  
Any notice by way of request, demand or otherwise hereunder may be sent by post addressed to the Bank at its above referred branch, which shall be deemed to have been duly authorized to receive such notice and to effect payment thereof forthwith, and if sent by post it shall be deemed to have been given at the time when it ought to have been delivered in due course of post and in proving such notice, when given by post, it shall be sufficient to prove that the envelope containing the notice was posted and a certificate signed by an officer of the Authority that the envelope was so posted shall be conclusive.
10. This Guarantee shall come into force with immediate effect and shall remain in force and effect for up to the date specified in paragraph 8 above or until it is released earlier by the Authority pursuant to the provisions of the Contract.
11. This Guarantee is subject to the Uniform Rules for Demand Guarantees (URDG) 2010 Revision, ICC Publication No. 758, except that the supporting statement under Article 15 (a) is hereby excluded.
12. This guarantee shall also be operatable at our ICICI Branch at Leh, UT of Ladakh, from whom, confirmation regarding the issue of this guarantee or extension / renewal thereof shall be made available on demand. In the contingency of this guarantee being invoked and payment there-under claimed, the said branch shall accept such invocation letter and make payment of amounts so demanded under the said invocation.
13. The guarantor/bank hereby confirms that it is on the SFMS (Structural Finance Messaging System) platform & shall invariably send an advice of this Bank Guarantee to the designated bank of [MoRT&H/NHAI/NHIDCL/State PWD/BRO], details of which is as under:

S.No.	Particulars	Details
1	Name of Beneficiary	National Highways & Infrastructure Development Corporation Limited NHIDCL UT Ladakh Project Account
2	Beneficiary Bank Account No.	362305000136
3	Beneficiary Bank Branch IFSC	ICIC0003623
4	Beneficiary Bank Branch Name	3623 Leh Ladakh Branch
5	Beneficiary Bank Address	ICICI Bank,Leh-194101

Signed and sealed this ..... day of ....., 20..... at .....

SIGNED, SEALED AND DELIVERED  
For and on behalf of the Bank by:  
(Signature)  
(Name)  
(Designation)  
(Code Number)  
(Address)

**SECTION-V**  
**TENDER DRAWINGS**

**Note\*:** Enclosed with the Tender Documents (Request for Proposal)

**SECTION-VI**

**SCHEDULE OF QUANTITIES**

**ABSTRACT OF COST**

**Name of work: Construction of observation and special home including Electrical, PHE, Fire fighting,Wifi,CCTV services & furniture for Social Tribal Welfare Department at Kargil in UT of Ladakh.**

SR .NO	DESCRIPTION	AMOUNT			TOTAL (IN RS)
		JKSoR	DSR	NS	
1	SUBTOTAL-1 FOR CIVIL WORKS	7,70,43,991	1,73,158	84,37,905	
	ADD 10% Cost Index on JK SoR Items since CI is two years old & 46.61% on DSR items as per approved CI for Kargil as 173	77,04,399.10	80,708.94		
	<b>Total</b>	<b>8,47,48,390</b>	<b>2,53,867</b>	<b>84,37,905</b>	<b>9,34,40,162</b>
2	SUBTOTAL -2 FOR ELECTRICAL WORKS		26,57,276	79,45,903	<b>1,06,03,179</b>
3	SUBTOTAL - 5 FOR PLUMBING WORKS	13,37,960	9,11,331	64,71,050	
	ADD 10% Cost Index on JK SoR Items since CI is two years old & 46.61% on DSR items as per approved CI for Kargil as 173	1,33,796.00	4,24,771.38		
	<b>Total</b>	<b>14,71,756</b>	<b>13,36,102</b>	<b>64,71,050</b>	<b>92,78,908</b>
4	SUBTOTAL - 6 FOR FIRE FIGHTING WORKS		51,71,243	11,73,099	<b>63,44,342</b>
	<b>GRAND TOTAL</b>			<b>Total</b>	<b>11,96,66,591</b>
	<b>Add 3 % contingencies</b>				<b>35,89,997.73</b>
	<b>SAY</b>				<b>12,32,56,589</b>

**ECPT incl of GST**

**12,32,56,589**

**ECPT exclusive of GST**

**10,80,72,000**

Er. Ashish Singh Rawat  
TGE RO-Ladakh

Dy. General Manager(P)  
NHIDCL RO-Ladakh

## Schedule of Quantities (Civil items)

Name of work: Construction of Observation cum special home for Boys at Kargil including Electrical, PHE, Fire fighting, CCTV services for Social Tribal Welfare Department, UT of Ladakh.										
The below mentioned is merely indicative and for guidance & brief description of jobs, but should not be considered limited to this list. Bidder should refer to the detailed tender documents, technical and particular specifications, special conditions of contract, finishes matrix, site conditions and tender drawings, schedule of quantities for detailed items and finishes matrix included in this project. Any discrepancy in the above shall be brought to the notice of NHIDCL in the pre-bid meeting. The all the fixtures, fittings shall be energy efficient conforming to GRIHA rating five for Green Buildings and shall be installed after consideration of -30deg C for Leh.										
S.NO	J&K SoR 2020/ DSR	DESCRIPTION OF ITEM	UNIT	RATE (INR)			QTY	AMOUNT (INR)		
				J&K SoR	DSR	NS		J&K SoR	DSR	NS
<b>SUBHEAD:1 EARTHWORKS</b>										
1	2.7.1	SUBTOTAL - 3 FOR PLUMBING WORKS	cum	188.75			1357.88	256300.49		
2	2.7.2	SUBTOTAL -4 FOR FIRE FIGHTING WORKS	cum	378.35			452.63	171251.73		
3	2.11	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20 cm in depth, consolidating each deposited layer by ramming and watering, lead upto 50 m and lift upto 1.5 m.	cum	198.70			1810.51	359748.57		
4	2.10.1	Extra for every additional lift of 1.5 m or part thereof in excavation/banking excavated or stacked material : All kinds of soil :	cum	81.65			272.15	22220.75		
5	2.10.2	Extra for every additional lift of 1.5 m or part thereof in excavation/banking excavated or stacked material : Ordinary or hard rock	cum	146.45			90.72	13285.28		
	DSR NO 2.28	Surface dressing of the ground including removing vegetation and inequalities not exceeding 15 cm deep and disposal of rubbish, lead up to 50 m and lift up to 1.5 m.								
6	2.28.1	All kinds of soil	SQM		24.35		2500.00	60875.00		
7	2.28	Supplying chemical emulsion in sealed containers including delivery as specified. Chlorophriphos/Lindane emulsifiable concentrate of 20%	1 litre	200.70			388.13	77896.69		
	2.29	Diluting and injecting chemical emulsion for POST-CONSTRUCTIONAL antitermite treatment. (excluding the cost of chemical emulsion):								
8	2.29.2	Along the external wall below concrete or masonry apron using chemical emulsion (Chloropyriphos / Lindane E.C. 20% with 1% concentration) @ 2.25 litres/ linear meter including drilling & plugging holes etc.	METRE	37.80			172.50	6520.50		
9	2.23	Supplying and filling in plinth with fine sand under floors including, watering, ramming, consolidating and dressing complete.	cum	787.40			37.10	29209.41		
		<b>TOTAL FOR SUBHEAD:1</b>						<b>936433.41</b>	<b>60875.00</b>	<b>0.00</b>
<b>SUBHEAD:2 CONCRETE WORKS</b>										
10	NS ( J&K SoR BASED)	Providing and laying 40 mm to 63mm average size crushed soling stone in 03 layers (overall thickness 230 mm ) under foundations mixed in sand to fill voids and compacted suitably (Cost of sand to be paid separately).	cum			2240.30	113.05			253266.50
11	NS ( J&K SoR BASED)	Supplying of Coarse sand zone III including transportation, taxes, contractor's profit, overheads etc complete in all respects and stacking at desired location as per directions of Engineer-in-charge	cum			1265.34	37.68			47682.41
	4.40	<b>CEMENT CONCRETE (CAST-IN-SITU)</b>								
		Providing and laying in position cement concrete of specified grade including curing but excluding the cost of centring and shuttering. All work upto plinth level with:								
12	4.4.7	1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size)	cum	4419.85			169.74	750213.94		
13	4.4.8	1:5:10 (1 cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size)	cum	4029.15			15.20	61243.08		
	4.5	Providing and laying cement concrete in retaining walls, return walls, walls (any thickness) including attached pilasters, columns, piers, abutments, pillars, posts, struts, buttresses, string or lacing courses, parapets, coping, bed blocks, anchors blocks, plain window sills, fillets etc upto floor V level, including curing but excluding the cost of centring, shuttering and finishing with.								
14	4.5.3	1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)	cum	7542.40			9.20	69390.08		
	4.10	Providing & fixing upto floor five level precast cement concrete solid blocks including hoisting and setting in position in cement mortar 1:3 (1 cement:3 coarse sand), cost of required centring, shuttering and curing complete								
15	4.10.3	1:3:6 (1 cement : 3 coarse sand : 6 graded crushed stone aggregate 20 mm nominal size)	cum	11444.90			172.57	1975066.54		
		<b>TOTAL FOR SUBHEAD:2</b>						<b>2855913.63</b>	<b>0.00</b>	<b>300948.92</b>
<b>SUBHEAD:3 REINFORCED CEMENT CONCRETE</b>										
		<b>FORM WORK</b>								
		Centering and shuttering including strutting, propping etc. and removal of form for:								
16	5.9.1	Foundations, footings, bases of columns etc. for mass concrete.	SQM	262.30			329.26	86365.68		
17	5.9.3	Suspended floors, roofs, landings, balconies and access platforms.	SQM	635.60			2280.44	1449447.99		
18	5.9.4	Shelves (cast-in-situ)	SQM	635.60			31.58	20074.79		
19	5.9.5	Lintel, beams, plinth beams, girders, bressumers and cantilevers.	SQM	502.85			1277.29	642287.56		

S.NO	J&K SoR 2020/ DSR	DESCRIPTION OF ITEM	UNIT	RATE (INR)			QTY	AMOUNT (INR)		
				J&K SoR	DSR	NS		J&K SoR	DSR	NS
20	5.9.6	Columns, pillars, piers, abutments, posts and struts.	SQM	680.15			1360.35	925240.69		
21	5.9.7	Stairs (excluding landings) except spiral staircases.	SQM	807.50			75.74	61156.82		
22	5.9.2	Walls (any thickness) including attached pilasters, buttresses, plinth and string courses etc.	SQM	573.85			324.02	185941.17		
23	5.22.6	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete upto plinth level and above:- Thermo-Mechanically Treated bars of grade Fe-500D or more.	Kg	79.25			182887.16	14493807.59		
24	5.34.1	Providing and laying in position machine batched and machine mixed design mix M-25 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-in-charge. Note:- Cement in this item is @ 330 kg/ cum. Excess or less cement used as per design mix is content considered payable or recoverable separately.	cum	7192.05			532.39	3828990.15		
25	5.34.2	All works upto plinth level	cum	8547.25			437.69	3741008.96		
26	5.35	Extra for providing richer mixes at all floor levels. Note:- Excess/ less cement over the specified cement content used is payable/ recoverable separately. 5.35.1 Providing M-30 grade concrete instead of M-25 grade BMC/RMC. (Note:- Cement content considered in M-30 is @ 340 kg/cum)	cum	101.70			658.53	66972.48		
27	5.36	Add or deduct for using more or less cement in the items of design mix over and above the specified cement content therein.	quintal	976.70			320.13	312666.72		
28	5.44.1	Providing and fixing of expansion joint system related with floor location as per drawings and direction of Engineer-In-Charge. The joints system will be of extruded aluminum base members, self aligning / self centering arrangement and support plates etc. as per ASTM B221-02. The system shall be such that it provides floor to floor /floor to wall expansion control system for various vertical location in load application areas that accommodates multi directional seismic movement without stress to its components. System shall consist of metal profiles with a universal aluminum base member designed to accommodate various project conditions and finish floor treatments The cover plate shall be designed of width and thickness required to satisfy projects movement and loading requirements and secured to base members by utilizing manufacturer's pre-engineered self centering arrangement that freely rotates / moves in all directions. The Self –centering arrangement shall exhibit circular sphere ends that lock and slide inside the corresponding aluminum extrusion cavity to allow freedom of movement and flexure in all directions including vertical displacement. Provision of Moisture Barrier Membrane in the Joint System to have watertight joint is mandatory requirement all as per the manufactures design and as approved by Engineer-in-Charge. (Material shall confirm to ASTM 6063.)	METRE	7526.10			3.00	22578.30		
29	5.45.1	Providing and fixing of expansion joint system related with wall joint (internal/ external) location as per drawings and direction of Engineer-In-Charge. The joints shall be of extruded aluminum base members, self aligning / centering arrangement and support plates as per ASTM B221-02. The material shall be such that it provides an Expansion Joints System suitable for vertical wall to wall/ wall to corner application, both new and existing construction in office Buildings & complexes with no slipping down tendency amongst the components of the Joint System. The Joint System shall utilize light weight aluminum profiles exhibiting minimal exposed aluminum surfaces mechanically snap locking the multi-cellular to facilitate movement. (Material shall confirm to ASTM 6063.)	METRE	5454.95			41.40	225834.93		
<b>TOTAL FOR SUBHEAD:3</b>								<b>26062373.85</b>	<b>0.00</b>	<b>0.00</b>
<b>SUBHEAD:4 MASONRY WORKS</b>										
30	6.9	Extra for forming cavity 5 cm to 7.5 cm wide in cavity walls with necessary weep and vent holes including use of cores and cost of providing and fixing bitumastic coated M.S. ties 300 mm long of 25mmx3 mm section at not less than 3 ties per sqm as per approved design.	sqm	168.45			509.30	85791.75		
31	6.38.1	Brick work with non modular fly ash bricks conforming to IS:12894, class designation 10 average compressive strength in superstructure above and below plinth level including curing complete in: Cement mortar 1:4 (1 cement : 4 coarse sand)	cum	6996.15			6.00	41976.90		
32	6.42	Providing and laying autoclaved aerated cement blocks masonry with AAC blocks in superstructure above plinth level upto floor V level in cement mortar 1:4 (1 Cement : 4 coarse sand ) and curing complete. The rate includes providing and placing in position 2 nos. 6 mm dia M.S bars at every third course of masonry work and fixing pvc mesh over whole area before plastering.	CUM	8685.85			609.76	5296314.95		

S.NO	J&K SoR 2020/ DSR	DESCRIPTION OF ITEM	UNIT	RATE (INR)			QTY	AMOUNT (INR)		
				J&K SoR	DSR	NS		J&K SoR	DSR	NS
33	6.47	Making plinth protection with common burnt clay bricks of class designation 7.5 laid on edge in cement mortar 1:6 (1 cement : 6 coarse sand) with 12 mm thick bed of cement mortar 1:6 (1 cement : 6 coarse sand) over 75 mm bed of dry brick aggregate 40mm nominal size rammed, consolidated and grouted with fine sand. The top of bricks pointed with cement mortar 1:3 (1cement: 3 fine sand) and curing complete.	SQM	1177.90			89.18	105039.23		
		<b>TOTAL FOR SUBHEAD:4</b>					<b>5529122.83</b>	<b>0.00</b>	<b>0.00</b>	
<b>SUBHEAD:5 CLADDING WORK</b>										
34	8.2.2.1	Providing and fixing gang saw cut, mirror polished, pre moulded and prepolished, machine cut for kitchen platforms, vanity counters, window sills, facias and similar locations, of required size, approved shade, colour and texture laid over 20 mm thick base cement mortar 1:4 (1 cement : 4 coarse sand), joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing, moulding and polishing to edges to give high gloss finish etc. complete at all levels <b>Granite of any colour or shade</b> (Area of slab upto 0.5 sqm)	sqm	4325.25			16.79	72638.25		
35	8.3.2	Providing edge moulding to 18 mm/16 mm thick marble stone counters, Vanities etc. including machine polishing to edge to give high gloss finish etc. complete as per design approved by Engineer-in-Charge. <b>Granite Work</b>	metre	432.30			29.79	12878.22		
36	8.40	Extra for fixing marble / granite stone over and above corresponding basic item, in facia and drops of width upto 150 mm with epoxy resin based adhesive including cleaning etc.complete.	metre	426.60			4.20	1791.08		
37	8.50	Extra for providing opening of required size and shape for wash basin/ kitchen sink in kitchen platform, vanity counters and similar location in marble/granite / stone work including necessary holes for pillar taps etc. including moulding, rubbing and polishing of cut edges etc. complete.	each	707.95			6.00	4247.70		
		<b>TOTAL FOR SUBHEAD : 5</b>					<b>91555.25</b>	<b>0.00</b>	<b>0.00</b>	
<b>SUBHEAD:6 WOOD AND PVC WORKS</b>										
	9.1	<u>Frames and trusses</u> Providing wood work in frames of doors, windows, clerestory windows and other frames, wrought framed and fixed in position with hold fast lugs or with dash fasteners of required dia and length (hold fast lugs or with dash fasteners shall be paid for separately):								
38	9.1.6	Second class kail wood	cum	92065.35			24.72	2276014.26		
	9.4	Providing wood work in frames of false ceiling, partitions etc. sawn and fixed in position :								
39	9.4.7	Kiln seasoned and chemically treated hollock wood	cum	61506.25			22.00	1353137.50		
	9.6	Providing and fixing <b>panelled or panelled and glazed shutters</b> for doors, windows and clerestory windows fixing with butt hinges of required size with necessary screws, excluding panelling which will be paid for separately, all complete as per direction of Engineer-in-charge. (Note: Butt hinges and necessary screws shall be paid separately).								
40	9.6.5	Second class kail wood 35 MM	SQM	2745.95			86.29	236952.14		
	9.8	Providing and fixing <b>panelling or panelling and glazing in panelled or panelled and glazed shutters</b> for doors, windows and clerestory windows (Area of opening for panel inserts excluding portion inside grooves or rebates to be measured). Panelling for panelled or panelled and glazed shutters 25 mm to 40 mm thick.								
41	9.8.5	Second Class kail wood	SQM	2219.30			46.95	104197.24		
	9.10.5	Providing and fixing glazed shutters for doors, windows and clerestory windows using 4mm thick float glass panes including ISI marked M.S. pressed butt hinges bright finished of required size with necessary screws.								
42		Second class kail wood 35 MM	SQM	3338.05			851.74	2843159.39		
43	NS	Providing and fixing of traditional Ladakhi single sided Shingstag of height 2 feet in 2nd class kail wood complete in all respects (except polishing, cement concrete coping, fasteners which to be paid separately) including cost of transportation, labour, wood, wastage, taxes, profits etc as per directions of Engineer- in-charge. Successful bidder to submit samples of various designs, patterns for approval from Engineer-in-charge.	RMT		8880.89		130.47		1158645.31	
44	9.12	Extra for providing heavy sheet float glass panes instead of ordinary float glass in glazed doors, windows and clerestory window shutters. (Area of opening for glass panes excluding portion inside rebate shall be measured) 9.12.1 5.0mm thick instead of 4 mm thick	sqm	267.70			851.74	228011.49		
45	9.15	Extra for providing ISI marked Stainless Steel butt hinges instead of M.S. pressed butt hinges bright finished of required size with necessary screws, (Shutter area to be measured).	sqm	96.00			719.00	69024.00		
	9.40	Providing and fixing wooden moulded beading to door and window frames with iron screws, plugs and priming coat on unexposed surface etc. complete:								
	9.40.3	2nd class kail wood								
46	9.40.3.1	50 x 12 mm	meter	160.75			1528.80	245754.60		

S.NO	J&K SoR 2020/ DSR	DESCRIPTION OF ITEM	UNIT	RATE (INR)			QTY	AMOUNT (INR)		
				J&K SoR	DSR	NS		J&K SoR	DSR	NS
		Providing and fixing M.S. grills of required pattern in frames of windows etc. with M.S. flats, square or round bars etc including priming coat with approved steel primer all complete.								
47	9.48.2	Fixed to openings / wooden frames with rawl plugs screws etc.	KG	179.90			459.77	82711.72		
48	9.52	Providing 40x5 mm flat iron hold fast 40 cm long including fixing to frame with 10 mm diameter bolts, nuts and wooden plugs and embeddings in cement concrete block 30x10x15 cm 1:3:6 mix ( 1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size).	each	163.05			321.00	52339.05		
49	NS	Providing and fixing ISI marked stainless steel tower bolt with necessary screws etc complete. 200x10 mm	each				207.00			46161.00
50	NS	Providing and fixing stainless steel casement stays (straight peg type) with necessary screws etc. complete. 200 mm weighing not less than 240 gms.	each				113.00			37290.00
51	NS	Providing and fixing ISI marked stainless steel tower bolt with necessary screws etc complete. 100 mm	each				248.00			33480.00
52	NS	Providing and fixing of stainless steel 200 mm long aldrop along with necessary crown,screws, labour cost, transportation,profits etc complete in all respects as per direction of Engineer-in-charge	each				60.00			17340.00
53	9.85	Providing and fixing aluminum extruded section body tubular type universal hydraulic door closer,(having brand logo with IS: 3564, embossed on the body, door weight upto 36 kg to 80 kg and door width from 701 mm to 1000 mm), with double speed adjustment with necessary accessories and screws etc. complete :	each	929.85			107.00	99493.95		
54	9.121	Providing and fixing factory made PVC door frames of size 50x47mm with a wall thickness of 5mm, made out of extruded 5mm rigid PVC foam sheet mitred at corners and jointed with two numbers of 150mm long brackets of 15x15mm MS square tube, the vertical door profiles to be reinforced with 19x19mm MS square tube of 19 gauge, EPDM rubber gasket weather seal to be provided throughout the frame. The door frame to be fixed to the wall using MS screws of 65/100mm size complete as per manufacturers' specifications and directions of engineer-in-charge	METER	478.50			139.95	66966.08		
55	9.122.2	Providing and fixing 30 mm thick factory made panel PVC door shutter consisting of frame made out of M.S. tubes of 19 gauge thickness and size of 19 mm x 19 mm for styles and 15x15 mm for top & bottom rails. M.S. frame shall have a coat of steel primers of approved make and manufacture. M.S. frame covered with 5 mm thick heat moulded PVC 'C' channel of size 30 mm thickness, 70 mm width out of which 50 mm shall be flat and 20 mm shall be tapered in 45 degree angle on both side forming styles and 5 mm thick, 95 mm wide PVC sheet out of which 75 mm shall be flat and 20 mm shall be tapered in 45 degree on the inner side to form top and bottom rail and 115 mm wide PVC sheet out of which 75 mm shall be flat and 20 mm shall be tapered on both sides to form lock rail. Top, bottom and lock rails shall be provided both side of the panel. 10 mm (5 mm x 2) thick, 20 mm wide cross PVC sheet be provided as gap insert for top rail & bottom rail, paneling of 5 mm thick both side PVC sheet to be fitted in the M.S. frame welded/ sealed to the styles & rails with 7 mm (5 mm+2 mm) thick x 15 mm wide PVC sheet beading on inner side, and joined together with solvent cement adhesive. An additional 5 mm thick PVC strip of 20 mm width is to be stuck on the interior side of the 'C' Channel using PVC solvent adhesive etc. complete as per direction of Engineer-in-charge, manufacturer's specification & drawing.	SQM	3331.05			32.50	108263.29		
56	9.130	Providing and fixing cupboard 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 a balancing lamination including second class teak wood lipping of 25mm wide x 12mm thick with necessary screws and bright finished stainless steel piano hinges complete as per directions of Engineer-in-charge	SQM	1904.20			17.41	33154.50		
57	NS	Providing and fixing of wooden railing with 2nd class wood consisting of balustrades of 75 mm dia and handrail of 100 x 100 mm moulded on edges including the cost of polishing to give desired finishing and including cost of 8 mm solid MS rod at bottom up to full height of balustard and atleast 100 mm embedded in to floor/slab complete in all aspects as per drawing and as per directions of Engineer-in-charge.	METRE				141.40			1788936.24
58	DSR NO 9.139	Providing and fixing panic bar / latch (Double point) fitted with a single body, Trim Latch & Lock on back side of the Panic Latch of reputed brand and manufacture to be approved by the Engineer-in- charge, all complete.	EACH				16.00	114157.60		
59	DSR NO 9.161	Providing and fixing fire resistant door frame of section 50 x 60 mm on horizontal side & 35 x 60 mm on vertical sides having built in rebate made out of 1.6 mm thick GI sheet ( Zinc coating not less than 120gm/ m <sup>2</sup> ) suitable for mounting 120 min Fire Rated Glazed Door Shutters. The frame shall be filled with Mineral wool Insulation having density min 96Kg/m <sup>3</sup> . The frame will have a provision of G.I. Anchor fastners 14 nos ( 5 each on vertical style & 4 on horizontal style of size M10 x 80 ) suitable for fixing in the opening along with Factory made Template for SS Ball Bearing Hinges of Size 100x89x3mm for fixing of fire rated glazed shutter . The frame shall be finished with a approved fire resistant primer or Powder coating of not less than 30 micron in desired shade as per the directions of Engineer - in- charge . (Cost of SS ball bearing hinges is excluded).	METRE				46.20	69898.29		

S.NO	J&K SOR 2020/ DSR	DESCRIPTION OF ITEM	UNIT	RATE (INR)			QTY	AMOUNT (INR)		
				J&K SoR	DSR	NS		J&K SoR	DSR	NS
60	DSR NO 9.162	Providing and fixing 60 mm thick glazed fire resistant door shutters of 120 min Fire Rating conforming to IS:3614 (Part II) or EN1634-1:1999, tested and certified as per laboratory approved by Engineer-in-charge, with suitable mounting on door frame, consisting of vertical styles, top rail & side rail 60 mm x 60 mm wide and bottom rail of 110 mm x 60 mm made out of 1.6mm thick G.I. sheet (zinc coating not less than 120gm/m <sup>2</sup> ) duly filled mineral wool insulation having density min 96 kg/m <sup>3</sup> and fixing with necessary stainless steel ball bearing hinges of size 100x89x3mm of approved make, including applying a coat of approved fire resistant primer or powder coating not less than 30 micron etc all complete as per direction of Engineer-in-charge (panelling to be paid for separately).	SQM		8379.30		25.20	211158.36		
61	DSR NO 9.164	Providing and fixing glazing in fire resistant door shutters, fixed panels & partitions etc., with G.I. beading made out of 1.6 mm thick G.I. sheet (zinc coating not less than 120 gm/m <sup>2</sup> ) of size 20 x 33 mm screwed with M4 x 38 mm SS screws at distance 75 mm from the edges and 150 mm c/c, including applying a coat of approved fire resistant primer/ powder coating of not less than 30 micron on G.I. beading, & special ceramic tape of 5 x 20 mm size etc complete in all respect as per NBC 2016, IS 16231 (Part 3):2016 and as per direction of Engineer-incharge with glass of required thickness having 120 minutes of fire resistance both integrity & radiation control (EW120) and minimum 20 minutes of insulation (EI20). The manufacturer have to give test report/certification of fire glass and the glass should have the stamp showing the value of E, EW & EI. The glass shall be tested in approved NABL accredited lab or by any other accreditation body which operates in accordance with ISO/IEC 17011 and accredits labs as per ISO/IEC 17025 for testing and calibration scopes shall be eligible. The maximum glazing size shall not be more than 1100x2200 mm (w x h) or 2.42 sqm.	SQM		39395.30		7.14	281282.44		
	DSR NO 9.165	Providing and fixing bright /matt finished Stainless Steel handles of approved quality & make with necessary screws etc all complete.								
62	9.165.1	125MM	EACH		98.75		124.00	12245.00		
		<b>TOTAL FOR SUBHEAD:6</b>						<b>8487920.92</b>	<b>0.00</b>	<b>3081852.55</b>
<b>SUBHEAD:7 STEEL WORKS</b>										
	10.2	Structural steel work in built up sections, trusses and framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete.								
63	10.2.2	Welded	KG	92.85			193347.81	17952344.07		
	10.16	Steel work in built up tubular (round, square or rectangular hollow tubes etc.) trusses etc., including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer, including welding and bolted with special shaped washers etc. complete.								
64	10.16.1	Hot finished welded type tubes	KG	168.60			1820.76	306980.14		
	10.25	Steel work welded in built up sections/ framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer using structural steel etc. as required.								
65	10.25.1	In stringers, treads, landings etc. of stair cases, including use of chequered plate wherever required, all complete.	KG	104.25			5237.52	546011.46		
66	10.25.2	In gratings, frames, guard bar, ladder, railings, brackets, gates and similar works	KG	133.30			1432.70	190978.91		
67	10.26	Providing and fixing hand rail of approved size by welding etc. to steel ladder railing, balcony railing, staircase railing and similar works, including applying priming coat of approved steel primer. 10.26.1 M.S. tube	KG	172.90			92.30	15958.67		
		<b>TOTAL FOR SUBHEAD:7</b>						<b>19012273.25</b>	<b>0.00</b>	<b>0.00</b>
<b>SUBHEAD:8 FLOORING</b>										
68	11.36	<b>KOTA STONE FLOORING</b> Kota stone slab flooring 25 mm thick over 20mm (average) thick base laid over and jointed with grey cement slurry mixed with pigment to match the shade of the slab, including rubbing, polishing and curing Vcomplete with base of cement mortar 1:4 (1 cement : 4 coarse sand) :	SQM	1915.15			1153.63	2209381.25		
69	11.37	Kota stone slab 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, polishing and curing complete.	SQM	2072.15			36.28	75183.82		
70	11.41	Extra for pre finished nosing in treads of steps of kota stone/ sand stone slab.	METRE	147.10			110.40	16239.84		
	11.43	Wooden planking, tongued and grooved in flooring including fixing with iron screws complete:								
	11.43.4	25 MM THICK								
71	11.43.4.2	Second class deodar wood	SQM	4142.70			679.37	2814428.17		
72	NS	Providing and laying 0.3 mm thickness polythene sheet as a moisture barrier under wooden flooring at all levels.	SQM		39.35		679.37			26733.23

S.NO	J&K SoR 2020/ DSR	DESCRIPTION OF ITEM	UNIT	RATE (INR)			QTY	AMOUNT (INR)		
				J&K SoR	DSR	NS		J&K SoR	DSR	NS
73	4.4.3	Providing and laying in position cement concrete of specified grade including curing but excluding the cost of centring and shuttering as protection to rcc slab under wooden flooring at all levels. All work with: 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) in desired gradient including making 300 x300 mm artificial patterns/impressions with rope and with neat cement punning on top surface as per directions of Engineer-in-charge.	CUM	5877.45			13.59	79859.32		
	11.50	Providing and laying Ceramic glazed floor tiles 300x300 mm (thickness to be specified by the manufacturers) of 1st quality conforming to IS: 15622 of approved make, laid on 20 mm thick bed of cement mortar 1: 4 ( 1 cement : 4 coarse sand) including pointing the joints with white cement and matching pigment etc., complete.								
74	11.50.2	In all colours, shades, except White, Ivory, Fume Red Brown	sqm	1115.80			83.63	93318.82		
75	11.50A	Providing and fixing 1st quality ceramic glazed floor tiles conforming to IS : 15622 (thickness to be specified by the manufacturer ) of approved make in all colours, shades except burgundy, bottle green, black of any size as approved by Engineer-in-Charge in skirting, risers of steps and dados over 12 mm thick bed of cement Mortar 1:3 (1 cement: 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	1052.25			598.96	630254.61		
76	11.54	Providing and laying Vitrified tiles in floor with different sizes (thickness to be specified by the manufacturer), with water absorption less than 0.08% and conforming to IS: 15622, of approved brand and manufacturer, in all colours and shades, laid with cement based high polymer modified quick set tile adhesive (water based) conforming to IS: 15477, in average 6 mm thickness, including grouting of joints (Payment for grouting of joints to be made separately). 11.54.2 Size of tile 600x600 mm	SQM	1612.30			65.78	106060.32		
	11.56	Providing and laying Vitrified tiles in different sizes (thickness to be specified by manufacturer), with water absorption less than 0.08 % and conforming to I.S. 15622, of approved make, in all colours and shades, in skirting, riser of steps, over 12 mm thick bed of cement mortar 1:3 (1 cement: 3 coarse sand), including grouting the joint with white cement and matching pigments etc. complete.								
77	11.56.2	Size of tile 600x600 mm	SQM	1531.85			4.21	6452.15		
	11.58	Grouting the joints of flooring tiles having joints of 3 mm width, using epoxy grout mix of 0.70 kg of organic coated filler of desired shade (0.10 kg of hardener and 0.20 kg of resin per kg), including filling / grouting and finishing complete as per direction of Engineer-in-charge.								
78	11.58.2	Size of tile 600x600 mm	SQM	229.35			69.99	16053.12		
		<b>TOTAL FOR SUBHEAD:7</b>						<b>6047231.42</b>	<b>0.00</b>	<b>26733.23</b>
<b>SUBHEAD:9 ROOFING</b>										
79	12.23	Providing and fixing pre-coated galvanized iron profile sheets (size, shape and pitch of corrugation as approved by Engineer-in-charge) 0.50 mm (+ 0.05 %) total coated thickness with zinc coating 120 grams per sqm as per IS: 277, in 240 mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18 microns. Sheet should have protective guard film of 25 microns minimum to avoid scratches during transportation and should be supplied in single length upto 12 metre or as desired by Engineer-in-charge. The sheet shall be fixed using self drilling /self tapping screws of size (5.5x 55 mm) with EPDM seal, complete upto any pitch in horizontal/ vertical or curved surfaces, excluding the cost of purlins, rafters and trusses and including cutting to size and shape wherever required.	SQM	626.25			439.88	275472.13		
	12.24	<b>ACCESSORIES</b> Providing and fixing pre-coated galvanized steel sheet roofing accessories 0.50 mm (+0.05 %) total coated thickness, Zinc coating 120 grams per sqm as per IS: 277, in 240 mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18 microns using self drilling/ self tapping screws complete :								
80	12.24.1	Ridges plain (500 - 600mm)	METRE	408.15			82.81	33798.09		
81	12.24.2	Flashings/ Aprons.(Upto 600 mm)	METRE	365.00			47.95	17501.02		
	12.34	<b>CEILING</b> Providing and fixing 20mm thick wooden planks ceiling (frame work for base to be paid for separately) with M.S. screws								
82	12.34.5	Budloof/fir wood	SQM	1271.75			443.97	564618.72		
	12.65	Providing and Fixing 15 mm thick densified tegular edged eco-friendly light weight calcium silicate false ceiling tiles of approved texture of size 595 x 595 mm in true horizontal level, suspended on inter locking metal grid of hot dipped galvanized steel sections (galvanizing @ 120 grams per sqm including both side) consisting of main "T" runner suitably spaced at joints to get required length and of size 24x38 mm made from 0.33 mm thick (minimum) sheet, spaced 1200 mm centre to centre, and cross "T" of size 24x28 mm made out of 0.33 mm (Minimum) sheet, 1200 mm long spaced between main "T" at 600 mm centre to centre to form a grid of 1200x600 mm and secondary cross "T" of length 600 mm and size 24 x28 mm made of 0.33 mm thick (Minimum) sheet to be inter locked at middle								

S.NO	J&K SoR 2020/ DSR	DESCRIPTION OF ITEM	UNIT	RATE (INR)			QTY	AMOUNT (INR)		
				J&K SoR	DSR	NS		J&K SoR	DSR	NS
83		of the 1200x 600 mm panel to from grid of size 600x600 mm, resting on periphery walls /partitions on Perimetre wall angle pre-coated steel size (24x24x3000 mm made of 0.40 mm thick (minimum) sheet with the help of rawl plugs at 450 mm centre to centre with 25 mm long dry wall screws@ 230 mm interval and laying 15 mm thick densified edges calcium silicate ceiling tiles of approved texture (Spin tone / Cosmos/hexa) in the grid, including, cutting/ making opening for services like diffusers, grills, light fittings, fixtures, smoke detectors etc., wherever required. Main 'T' runners to be suspended from ceiling using G.I. slotted deats of size 25x35x1.6 mm fixed to ceiling with 12.5 mm dia and 50 mm long dash fasteners, 4 mm G.I. adjustable rods with galvanized steel level clips of size 85 x 30 x 0.8 mm, spaced at 1200 mm centre to centre along main 'T', bottom exposed with 24 mm of all T-sections shall be pre-painted with polyester baked paint, for all heights, as per specifications, drawings and as directed by engineer-in-charge. Note :- Only calcium silicate false ceiling area will be measured from wall to wall. No deduction shall be made for exposed frames/opening (cut outs) having area less than 0.30 sqm. The calcium silicate ceiling tile shall have NRC value of 0.50 (Minimum), light reflection > 85%, non - combustible as per B.S. 476 part IV, 100% humidity resistance and also having thermal conductivity <0.043 w/m 0 KC	SQM	1716.85			502.15	862123.44		
	12.69	Providing and fixing plained eaves boarding.								
	12.69.2	2nd class nail wood								
84	12.69.2.2	300x40 mm (nominal size)	METRE	998.85			70.55	70466.87		
		<b>TOTAL FOR SUBHEAD:9</b>						<b>1823980.26</b>	<b>0.00</b>	<b>0.00</b>
<b>SUBHEAD:10 FINISHING</b>										
	13.1	<b>CEMENT PLASTER (IN FINE SAND)</b> 12mm Cement plaster of mix:								
85	13.1.1	1 : 4 ( 1 cement : 4 fine sand)	sqm	260.05			600.72	156218.28		
	13.2	15mm Cement plaster on the rough side of single or half brick wall of mix:								
86	13.2.1	1 : 4 ( 1 cement : 4 fine sand)	SQM	300.45			758.40	227861.28		
	13.12	18mm Cement plaster in two coats under layer 12mm thick cement plaster 1 : 5 (1 cement : 5 coarse sand) finished with a top layer 6mm thick cement plaster 1 : 6 (1 cement : 6 fine sand)	SQM	374.30			1774.58	664226.60		
88	13.17	<b>6MM CEMENT PLASTER</b> 6 mm cement plaster to ceiling of mix 1 : 3 (1 cement : 3 fine sand)	SQM	221.50			619.13	137138.11		
89	13.25	Extra for plastering exterior walls of the height more than 10m from ground level for every additional height of 3m or part thereof.	SQM	65.05			59.00	3838.15		
90	13.29	Providing and applying Plaster of Paris putty of 2mm thickness over plastered surface to prepare the surface even and smooth complete.	sqm	216.00			214.75	46386.11		
91	13.54	Finishing walls with textured exterior paint of required shade on New work (two or more coats applied @ 3.28 liter/10sqm) over and including base coat of exterior primer applied @ 2.20kg/10sqm	SQM	228.55			1774.58	405581.06		
92	13.56	Finishing wall with premium acrylic smooth exterior paint with silicone additives of required shade on New work (two or more coats applied @ 1.43 liter/10sqm over and including priming coat of water exterior paint applied @ 2.20kg/10sqm)	sqm	160.60			177.46	28499.81		
	13.57	Finishing with Deluxe multi surface paint system for interiors using primer as per manufacturers' specifications:								
93	13.57.1	Two or more coats applied @ 1.25 liter/10sqm over and including one coat of special primer applied @ 0.75liter /10sqm	sqm	137.45			758.40	104242.08		
	13.70	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade over one coat of red oxide metal primer.								
94	13.70.1	Two or more coats on new work	SQM	121.95			4065.39	495774.80		
95	13.73	Painting with black anti-corrosive bitumastic paint of approved brand and manufacture to give an even shade on new work Two or more coats ( under wooden flooring).	SQM	104.40			640.04	66820.12		
96	13.77	Polishing on wood work with ready mixed wax polish of approved brand and manufacture on New work	sqm	144.30			266.48	38453.64		
	13.88	Providing and applying white cement based putty of specified thickness, of approved brand and manufacturer, over the plastered wall surface to prepare the surface even and smooth complete.								
97	13.88.2	2 mm thick	sqm	172.40			600.72	103564.82		
		<b>TOTAL FOR SUBHEAD:10</b>						<b>2478604.86</b>	<b>0.00</b>	<b>0.00</b>
<b>SUBHEAD:11 ROAD WORKS AND WATERPROOFING</b>										
98	16.2	Consolidation of subgrade with power road roller of 8 to 12 tonne capacity including making good the undulations etc. with earth or quarry spoils etc. and rerolling the subgrade.	sqm	2.75			583.44	1604.47		
99	16.3	Extra for compaction of earth work in embankment under optimum moisture conditions to give at least 95% of the maximum dry density (proctor density)	CUM	17.15			175.03	3001.82		

S.NO	J&K SoR 2020/ DSR	DESCRIPTION OF ITEM	UNIT	RATE (INR)			QTY	AMOUNT (INR)		
				J&K SoR	DSR	NS		J&K SoR	DSR	NS
100	16.6	Providing and fixing <b>concertina coil fencing</b> with punched tape concertina coil 600 mm dia 10 meter openable length ( total length 90m), having 50 nos rounds per 6 meter length, upto 3 m height of wall with existing angle iron 'Y' shaped placed 2.4 m or 3.00 m apart and with 9 horizontal R.B.T. reinforced barbed wire, stud tied with G.I. staples and G.I. clips to retain horizontal, including necessary bolts or G.I. barbed wire tied to angle iron, all complete as per direction of Engineer-in-charge, with reinforced barbed tape (R.B.T.) / Spring core (2.5mm thick) wire of high tensile strength of 165 kg/ sq.mm with tape (0.52 mm thick) and weight 43.478 gm/ meter (cost of M.S. angle, C.C. blocks shall be paid separately)	METRE	309.15			2951.60	912487.14		
101	16.83	Providing, laying, spreading and compacting graded stone aggregate (size range 53 mm to 0.075 mm ) to <b>wet mix macadam (WMM)</b> specification including premixing the material with water at OMC in mechanical mix plant, carriage of mixed material by tipper to site, for all leads & lifts, laying in uniform layers with mechanical paver finisher in sub- base / base course on well prepared surface and compacting with vibratory roller of 8 to 10 tonne capacity to achieve the desired density, complete as per specifications and directions of Engineer-in-Charge	cum	1041.50			235.08	244838.42		
102	16.94	Providing and laying factory made chamfered edge <b>Cement Concrete paver blocks</b> in footpath, parks, lawns, drive ways or light traffic parking etc, of required strength, thickness & size/ shape, made by table vibratory method using PU mould, laid in required colour & pattern over 50mm thick compacted bed of sand, compacting and proper embedding/laying of inter locking paver blocks into the sand bedding layer through vibratory compaction by using plate vibrator, filling the joints with sand and cutting of paver blocks as per required size and pattern, finishing and sweeping extra sand complete all as per direction of Engineer-in-Charge.	SQM	864.25			940.33	812680.20		
103	16.70	Providing, laying and making kerb channel 30cm wide and 50mm thick of cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20mm nominal size) over 75mm bed of dry brick ballast 40mm nominal size well rammed and consolidated and grouted with fine sand including finishing the top smooth etc. complete as per direction of Engineer-in-charge.	sqm	446.05			61.50	27432.08		
104	16.74	Providing and laying 60mm thick factory made cement concrete interlocking paver block of M-30 grade made by block making machine with strong vibratory compaction and of approved size and design/shape laid in required colour and pattern over and including 50mm thick compacted bed of fine sand, filling the joints with coarse sand etc. all complete as per direction of Engineer-in-charge.	sqm	770.60			117.53	90571.85		
105	16.75	Providing and laying at or near ground level factory made kerb stone of M-25 grade cement in position to the required line, level and curvature jointed with cement mortar 1:3 (1 cement: 3 coarse sand) including making joints with or without grooves (thickness of the joints except at sharp curve shall not to be more than 5mm) including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-charge).	cum	8328.30			3.95	32886.37		
106	16.84	Construction of dry lean cement concrete sub base over a prepared subgrade with coarse and fine aggregate conforming to IS:383, the size of coarse aggregate not exceeding 25 mm, aggregate cement ratio not to exceed 15:1, aggregate gradation after blending to be as per specifications, cement content not to be less than 150 Kg/cum, optimum moisture content to be determined during trial length construction, concrete strength not to be less than 10 Mpa at 7 days, mixed in a batching plant, transported to site, for all leads & lifts, laid with a mechanical paver, compacting with 8- 10 tonne vibratory roller, finishing and curing etc. complete as per direction of Engineer-in-charge.	cum	2526.50			35.26	89090.39		
107	16.92	Providing and laying tactile tile (for vision impaired persons as per standards) of size 300x300x9.8mm having with water absorption less than 0.5% and conforming to IS: 15622 of approved make in all colours and shades in for outdoor floors such as footpath, court yard, multi modals location etc., laid on 20mm thick base of cement mortar 1:4 (1cement : 4 coarse sand) in all shapes & patterns including grouting the joints with white cement mixed with matching pigments etc. complete as per direction of Engineer-in-Charge.	sqm	1912.30			7.05	13486.45		
108	16.68	Providing Retro-reflective regulatory sign board of size 900mm diameter made out of 2mm thick aluminum sheet, face to be fully covered with high intensity encapsulated lens type retro-reflective sheeting as approved by Engineer-in-charge. Letter, symbols, borders, etc. will be as per IRC:67 with required colour scheme on the boards and with the high intensity grade A. the aluminum sheet to be riveted to M.S. frame of angle iron of size 40x40x4mm. The boards will be fixed to 1 No. 50x50mm square post made of M.S. angle 50x50x4mm, 4m long welded to the frame with adequate anti-theft arrangement. Sheet work to be painted with two or more coats of synthetic enamel paint over an under coat (primer) and back side of aluminum sheet to be painted with two or more coats of epoxy paint including appropriate priming coat complete in all respects as per directions of Engineer-in-charge.	sqm	6362.95			10.17	64734.11		

S.NO	J&K SOR 2020/ DSR	DESCRIPTION OF ITEM	UNIT	RATE (INR)			QTY	AMOUNT (INR)		
				J&K SoR	DSR	NS		J&K SoR	DSR	NS
109	23.50	Providing and laying water proofing treatment in sunken portion of WCs, bathroom, etc., by applying cement slurry mixed with water proofing cement compound consisting of applying : (a) First layer of slurry of cement @ 0.488 kg/sqm mixed with with water proofing cement compound @ 0.253kg/ sqm. This layer will be allowed to air cure for 4 hours. (b) Second layer of slurry of cement @ 0.242 kg/sqm mixed with water proofing cement compound @ 0.126 kg/sqm . This layer will be allowed to air cure for 4 hours followed with water curing for 48 hours. The rate includes preparation of surface, treatment and sealing of all joints, corners, junctions of pipes and masonry with polymer mixed slurry.	SQM	451.05			140.50	63373.43		
	DSR 14.90.1	Providing and laying APP (Atactic Polypropylene Polymer) modified prefabricated five layer, 3 mm thick water proofing membrane, black finished reinforced with glass fibre matt consisting of a coat of bitumen primer for bitumen membrane @ 0.40 litre/sqm by the same membrane manufactured of density at 25°C, 0.87 - 0.89 kg/litre and viscosity 70 - 160 cps. Over the primer coat the layer of membrane shall be laid using butane torch and sealing all joints etc., and preparing the surface complete. The vital physical and chemical parameters of the membrane shall be as under : Joint strength in longitudinal and transverse direction at 23°C as 350/300 N/5 cm. Tear strength in longitudinal and transverse direction as 60/80N. Softening point of membrane not less than 150°C. Cold flexibility shall be upto -2°C when tested in accordance with ASTM, D - 5147. The laying of membrane shall be got done through the authorised applicator of the manufacturer of membrane :								
110		3MM THICK	SQM				144.82		74283.37	
	23.19.2	Providing and applying integral crystalline slurry of hydrophilic in nature for waterproofing treatment to the RCC structures like retaining walls of the basement, water tanks, roof slabs, podiums, reservoir, sewage & water treatment plant, tunnels / subway and bridge deck etc., prepared by mixing in the ratio of 5 : 2 (5 parts integral crystalline slurry : 2 parts water) for vertical surfaces and 3 : 1 (3 parts integral crystalline slurry : 1 part water) for horizontal surfaces and applying the same from negative (internal) side with the help of synthetic fiber brush. The material shall meet the requirements as specified in ACI- 212-3R-2010 i.e by reducing permeability of concrete by more than 90% compared with control concrete as per DIN 1048 and resistant to 16 bar hydrostatic pressure on negative side. The crystalline slurry shall be capable of selfhealing of cracks up to a width of 0.50mm. The work shall be carried out all complete as per specification and the direction of the engineer-incharge. The product performance shall carry guarantee for 10 years against any leakage.								
111	A	For vertical surface two coats @ 0.70 kg per sqm	SQM	480.90			179.21	86181.13		
112	B	For horizontal surface one coat @1.10 kg per sqm.	SQM	367.75			46.97	17271.42		
		<b>TOTAL FOR SUBHEAD:11</b>						<b>2442367.86</b>	<b>74283.37</b>	<b>0.00</b>
<b>SUBHEAD:12 NEW TECHNOLOGIES AND MATERIAL</b>										
113	31.70	Providing and fixing 50 mm thick extruded polystyrene rigid insulation board of required size between cavity wall, complying with ISO 4898:2008 & ASTM C 578-08b - type VI, having thermal conductivity of 0.0289 W/m K as per ASTM C 578 (measured as per IS 3346), compressive strength of > 350kPa listed as per ASTM D 1621, density of 34-36 kg/m³ as per ASTM D 1622, water absorptions <1% by volume as per ASTM D 2842, oxygen index of 24.1 to 28.1 listed as per ASTM D 2863, cell size 0.4 mm of dia (max) as per ASTM D 3576. Fire retardant property as per DIN 4102, Part 1 of class B2 and as per ASTM E84 class A, fixed with suitable water based adhesive and fastener, complete in all respect as per the direction of Engineer-in-Charge	SQM	807.20			946.12	763711.37		
114	31.8	Providing and fixing 50 mm thick extruded polystyrene rigid insulation board of required size underdeck on ceiling surface, complying with ISO 4898:2008 & ASTM C 578-08b - type VI, having thermal conductivity of 0.0289 W/m K as per ASTM C 578 (measured as per IS 3346), compressive strength of > 350 kPa listed as per ASTM D 1621, density of 34-36 kg/cum as per ASTM D 1622, water absorptions < 1% by volume as per ASTM D 2842, oxygen index of 24.1 to 28.1 listed as per ASTM D 2863, cell size 0.4 mm of dia(max) as per ASTM D 3576. Fire retardant property as per DIN 4102, Part 1 of class B2 and as per ASTM E84 class A, fixed with suitable water based adhesive and fastener, complete in all respect as per the direction of Engineer-in-Charge.	SQM	867.90			509.30	442022.34		
		<b>TOTAL FOR SUBHEAD:12</b>						<b>1205733.71</b>	<b>0.00</b>	<b>0.00</b>
<b>SUBHEAD:13 HORTICULTURE AND LANDSCAPE</b>										
115	17.2	Supplying and stacking of good earth at site including royalty (earth measured in stacks will be reduced by 20% for payment)	CUM	258.25			123.87	31990.20		
116	17.8	Spreading of sludge, dump manure or/and good earth in required thickness as per directions of officer in-charge (cost of sludge, dump manure or/and good earth to be paid separately)	CUM	48.70			154.84	7540.77		
117	17.10.1	Grassing with selection no. 1 grass including watering & maintenance of the lawn for 30 days or more till the grass forms a thick lawn free from weeds & fit for mowing including supplying of good earth if needed (the good earth shall be paid separately.) In rows 5 cm apart in either direction	100 SQM	1635.70			4.13	6753.97		
118	17.7	Fine dressing of the ground	100 SQM	340.85			4.13	1407.40		
119	17.4.1	Supplying and stacking at site dump manure from approved source including carriage complete (manure measured in stacks will be reduced by 8% for payment) Screened through sieve of I.S. designation 20 mm	CUM	62.15			30.97	1924.68		
	17.14.2	Digging holes in ordinary soil and refilling the same with the excavated earth mixed with manure or sludge in the ratio of 2:1 by volume (2 part of stacked volume of earth after reduction by 20% :1 part of stacked volume of manure after reduction by 8%) flooding with water, dressing including removal of rubbish & surplus earth, if any with all leads & lifts (cost of sludge, manure or extra good earth, if needed, to be paid for separately)								

S.NO	J&K SoR 2020/ DSR	DESCRIPTION OF ITEM	UNIT	RATE (INR)			QTY	AMOUNT (INR)		
				J&K SoR	DSR	NS		J&K SoR	DSR	NS
120		Holes 90 cm dia& 90 cm deep	EACH	359.15			10.00	3591.50		
122	14.28.2	Providing and fixing brass curtain rods of wall thickness 1.25 mm with two brass brackets fixed with brass screws and wooden plugs etc. wherever necessary complete:- <b>25 mm diameter.</b>	METRE		361.90		105.00	37999.50		
123	NS	Providing and fixing of blackout roller blinds made from premium polyester fabric having cord drawn mechanism along with all the powder coated slider frame, other fittings, accessories complete in all respects as per directions of Engineer-in-charge.	SQM			1580.00	85.00			134300.00
124	NS	Supplying & Placing Modular table in completely knock down conditions with an overall size 1500mm X 1650mm X 750mm that is to be assembled at site. The construction of the main table shall be free standing structure constructed with the help of minifix dowels and pins. The worktop shall have the size 1500mm X 750mm made up of 25mm thick Pre-laminated particle board of grade II of IS 12823 with approved laminate and finish as per approved shade. The side top shall have the size 900mm X 450mm X 750mm with 25mm thick Pre-laminated particle board. The table top profile shall be in rectangle shape with one side round and the edges shall be sealed with 2mm thick thin strip of impermeable PVC that is cut to fit the size of board panel and duly pasted with the assistance of edge banding machine at 200 degree Celsius. A pullout keyboard tray shall be provided of 18mm thick Pre-laminated particle board. The tray shall be operated on keyboard channel. The table top and side top shall be supported over particle board base gable end. The end wall of the table on the side shall be topped by gable end. It should be made up of 25mm thick particle board and profile shall be in linear shape with appropriate PVC edge banding. The table shall be clad with 18mm thick modesty panel which provide structural support for the table. It should be 18mm thick particle board with appropriate PVC edge banding connected with both end. There shall be buffers provided at the bottom to avoid scratches on the floor. A mobile pedestal shall be provided with an overall size 400mm X 450mm X 680mm. The pedestal shall be made up of Pre-laminated particle board of grade II of IS 12823. Pedestal side, back, top, fascia shall be 18mm thick and drawer base shall be 9mm thick. The pedestal shall have 3 nos. of drawer i.e. 2 box drawer and 1 filing drawer. The drawer shall be operated with handle and easily close & open with the assistance of roller channel and ball bearing channel to enable smooth operation. The drawer shall have central locking mechanism in which all the drawer shall be synchronized locked with one single key. The pedestal shall be moulded over 50mm injection moulded nylon	EACH			33430.00	1.00			33430.00
125	NS	Providing and supplying high back chair with ergonomic design, comfortable & aesthetically appealing. The seat and back shall be made of 15mm thick hot pressed commercial plywood padded with high resilience moulded polyurethane foam 50mm thick having density 40kg/m <sup>3</sup> in seat and 40mm thick having density 40kg/m <sup>3</sup> in back. The same shall be upholstered with fabric tapestry 1mm thick and 300 GSM. The back and base of the chair shall be supplied with polypropylene bead on edges and the backrest shall be made by keeping the natural curvature of the spine with lumbar support. The seat and back shall be arrested together with 50-60µ thick powder coated HR steel spine and the armrest shall be used black integral polyurethane arm with metal insert completely joint with seat and back. For seating durability the chair shall have swivel tilt 360 degree revolving mechanism with upright position locking and tilt tension adjustment. The pneumatic seat height adjustment for healthy seating, user can adjust seat height up to 100mm with BIFMA standard class-3 gas-lift to suit them using the lever under the seat. The gas-lift mechanism should be tested as per ANSI/BIFMA X5.1-2011 standards. The pedestal should be five legged injection moulded in black 30% glass filled nylon having pitch circle Dia. 700±15 mm and fitted with 5 nos. twin wheel castors. The castors of the chairs should be injection moulded in black 30% glass filled nylon, conforming to ANSI/BIFMA Standards X5.1-2011 tested to perform 98,000 cycles with 250lbs load. The seat size shall be 475±10 mm(W) X 460±10 mm(D) and back size shall be 470±10 mm(W) X 610±10 mm(H) from seat. Overall height shall be = 1050±10 mm, Overall width (arm) = 545±10 mm, base width/ depth = 760±10 mm. (Model no - GB 404 in Geeken/equivalent in Wipro/Godrej)	EACH			11080.00	9.00			
126	NS	Providing and supplying visitor chair with ergonomic design for user comfort. The seat and back shall be made of 15mm thick hot pressed commercial plywood padded with high resilience moulded polyurethane foam 50mm thick having density 40kg/m <sup>3</sup> in seat and 40mm thick having density 40kg/m <sup>3</sup> in back. The same shall be upholstered with tapestry 1mm thick and 300 GSM. The back and base of chair shall be supplied with polypropylene bead on edges and the backrest shall be made by keeping the natural curvature of the spine. The seat and back shall be arrested together with 50-60µ thick powder coated HR steel spine and the armrest shall be used of black integral polyurethane arm with metal insert completely joint with seat and back. The frame structure shall be cantilever support type made up of MS/CRCA powder coated round pipe of Dia. 25.4mm with 2mm thick. There shall be co-polymer polypropylene shoe provided at the base to avoid scratches on the floor. The seat size shall be 460±10 mm(W) X 450±10 mm(D) and back size shall be 460±10 mm(W) X 400±10 mm(H) from seat. Seat height = 450±10 mm, Overall height shall be = 830±10 mm, Overall width - 555±10 mm, overall depth = 595±10 mm. (Model no - Numero GB 406 in Geeken/equivalent in Wipro/Godrej)	EACH			7950.00	26.00			
127		Providing and supplying centre table with an overall size 1200mm X 600mm X 430mm. The top and side cladding shall be made up of 36mm thick pre-laminated particle board of grade II of IS 12823 with approved laminate and finish as per approved shade. Extruded aluminium section shall be inserted within side corner edge at both side of the table. There shall be leveller shoe provided at the bottom. (Model no -CLUB in Geeken/equivalent in Wipro/Godrej)				23420.00	1.00			23420.00

S.NO	J&K SoR 2020/ DSR	DESCRIPTION OF ITEM	UNIT	RATE (INR)			QTY	AMOUNT (INR)		
				J&K SoR	DSR	NS		J&K SoR	DSR	NS
128	NS	Supplying & placing triangular table in completely knock down conditions with an overall size 1500mm X 750mm X 750mm that is to be assembled at site. The construction of the main table shall be free standing structure constructed with the help of minifix dowels and pins. The worktop shall be made up of 25mm thick particle board with approved laminate and finish as per approved shade. The top profile shall be in rectangle shape with front and back full round post form and other edges shall be sealed with 2mm thick thin strip of impermeable PVC that is cut to fit the size of board panel and duly pasted with the assistance of edge banding machine at 200 degree Celsius. A pullout keyboard tray shall be provided of 18mm thick Pre-laminated particle board having size 550mm X 280mm. The tray shall be operated on keyboard channel. The top shall be supported over particle board base gable end. The end wall of the table on the side shall be topped by gable end. It should be made up of 25mm thick particle board and profile shall be in linear shape with front and back full round post form and other edge with appropriate PVC edge banding. The table shall be clad with 18mm thick modesty panel which provide structural support for the table. It should be 18mm thick pre-laminated particle board with appropriate PVC edge banding connected with both end. There shall be buffers provided at the base to avoid scratches on the floor. A mobile pedestal shall be provided with an overall size 400mm X 450mm X 650mm. The pedestal shall be made up of Pre-laminated particle board of grade II of IS 12823. Pedestal side, back, top, facia shall be 18mm thick and drawer base shall be 9mm thick. The pedestal shall have 3 nos. of drawer i.e. 2 box drawer and 1 filing drawer. The drawer shall be operated with SS handle and easily close & open with the assistance of roller	EACH		30430.00		6.00			182580.00
129		Providing and supplying medium back chair with ergonomic design, comfortable & aesthetically appealing. The seat and back shall be made of 15mm thick hot pressed commercial plywood padded with high resilience moulded polyurethane foam 50mm thick having density 40kg/m <sup>3</sup> in seat and 40mm thick having density 32kg/m <sup>3</sup> in back. The same shall be upholstered with fabric tapestry 1mm thick and 300 GSM. The backrest shall be made by keeping the natural curvature of the spine which helps to provide back support. The seat and back shall be arrested together with 50-60µ thick powder coated HR steel spine and the armrest shall be used black integral polypropylene arm completely joint with seat. For seating durability the chair shall have synchro tilt 360 degree revolving mechanism with upright position locking and tilt tension adjustment. The pneumatic seat height adjustment for healthy seating, user can adjust seat height up to 120mm with BIFMA standard class-3 gas-lift to suit them using the lever under the seat. The gas-lift mechanism should be tested as per ANSI/BIFMA X5.1-2011 standards. The pedestal should have five legged injection moulded in black 30% glass filled nylon having pitch circle dia. 700mm and fitted with 5 nos. twin wheel castors. The castors of the chair should be injection moulded in black 30% glass filled nylon, confirming to ANSI/BIFMA standards X5.1-2011 tested to perform 98,000 cycle with 250lbs load. The seat size shall be 465±10 mm(W) X 460±10 mm(D) and back size shall be 480±10 mm(W) X 520±10 mm(H) from seat & overall height = 960±10 mm. (Model no - Numero GB 416 in Geeken/equivalent in Wipro/Godrej)	EACH		11460.00		12.00			137520.00
130	NS	Providing, supplying and placing vertical filing cabinet. The overall size of the cabinet shall be 440mm (W) X 620mm (D) X 1310mm (H). The cabinet shall be supplied with 4 nos. of drawer. The drawer shall be operated with aesthetically appealing snap fit ABS plastic handle and ball bearing base telescopic channel. All drawers shall be synchronized locked with central locking mechanism by one single key. Uniformly distributed load capacity of each drawer shall be 15/20 Kg. The entire body panel, shelf shall be made of prime quality 0.8mm thick CRCA sheet of grade 'D' confirming to IS: 513. To protect the ball from kicks, abrasion and serve as a decorative moulding skirting shall be provided at the bottom of the cabinet. The complete steel structure shall be constructed by welding and provide finishing with epoxy polyester powder coated to the thickness 40-50µ thick. (Model no - GMS 47 in Geeken/equivalent in Wipro/Godrej)	EACH		29360.00		12.00			352320.00
131	NS	Supplying & Placing executive table in completely knock down conditions with an overall size 1500mm X 750mm X 750mm that is to be assembled at site. The construction of the main table shall be free standing structure constructed with the help of minifix dowels and pins. The table top shall be made up of 25mm thick particle board with approved laminate and finish as per approved shade. The profile shall be in rectangle shape with one side post forming edges. The top shall be supported over particle board base gable end. The end wall of the table on the side shall be topped by gable end. It should be made up of 18mm thick particle board and profile shall be in linear shape. The table shall be clad with 18mm thick modesty panel which provide structural support for the table. It shall be 18mm thick particle board with appropriate PVC edge banding connected with both end. There shall be buffers provided at the base to avoid scratches on the floor. One hanging drawer shall be provided with an overall size 400mm X 450mm X 150mm with key locking mechanism. The drawer shall be made up of Pre-laminated particle board of grade II of IS 12823. Drawer side, back, top, facia shall be 18mm thick and drawer base shall be 9mm thick. The drawer shall be operated with Al die cast handle and easily close & open with the assistance of ball bearing channel to enable smooth operation. The manufacturer shall have quality and safety assurance like ISO-9001:2015, ISO-14001:2015 and ISO-18001:2007, BIFMA membership and AIOA certification. The board used should meet International Standard of quality, Indian standard IS 12823 grade II should meet long time load bending, screw-withdrawal strength, modulus of rupture and modulus of elasticity bending tested as per IS 2380. (Model no - Numero 9 in Geeken/equivalent in Wipro/Godrej)	EACH		22290.00		2.00			44580.00
132		Supplying & Placing three seater bench. The seat and back shall be made up of high quality cold rolled MS perforated sheet of 1.2mm thick, pressed and welded to form the shape. The seat and back electrostatically coated with epoxy powder and then cured under heat to allow it to form a skin. The armrest shall be made up of mild steel powder coated tube with 1.2mm thick. The base structure shall be supported by MS powder coated with 40-60µ (DFT). There shall be PPCP shoe provided at the base to avoid scratches on the floor. The seat size shall be 440±10 mm(D) X 405±10 mm(H) from ground. Overall height shall be = 775±10 mm, overall depth = 710±10 mm & overall width = 1765±10 mm. (Model no - MAGNUM 3 in Geeken/equivalent in Wipro/Godrej)	EACH		29220.00		6.00			175320.00

S.NO	J&K SoR 2020/ DSR	DESCRIPTION OF ITEM	UNIT	RATE (INR)			QTY	AMOUNT (INR)		
				J&K SoR	DSR	NS		J&K SoR	DSR	NS
133	NS	Supplying & Placing cafeteria table with an overall size 1800mm X 900mm X 750mm. The top shall be made up of 25mm thick Pre-laminated particle board of grade II of IS 12823 with approved laminate and finish as per approved shade. The profile shall be in rectangle shape and the edges shall be sealed with 2mm thick thin strip of impermeable PVC that is cut to fit the size of board panel and duly pasted with the assistance of edge banding machine at 200 degree Celsius. The top shall be supported on MS/CRCA rectangle pipe frame having cross-section area 70mm X 20mm with 1.6mm thick. The understructure shall consist of four legs made up of MS round pipe having dia. 38.1mm with 1.6mm thick. The Joints shall be made using TIG welding. The metal parts shall be powder coated to dry film thickness of 40-60µ. There shall be PPCP shoe provided at bottom to avoid scratches on the floor. (Model no - GC 9032 in Geeken/equivalent in Wipro/Godrej)	EACH			17970.00	6.00			107820.00
134	NS	Supplying & Placing Cafe Chair. The seat shall be made of 14mm thick wooden ply and the back shall be made of metal frame. The seat and back shall be fixed with plywood & metal frame. The frame structure shall be supported by four legs made up of MS CRCA chrome plated round pipe of Dia 28.6mm with 2mm thick and three round strip at back side of Dia 13mm. There shall be PPCP shoe provided at the base to avoid scratches on the floor. The Seat size shall be 410±10 mm(D)X410±10 mm(W) and back size shall be 475±10 mm(W)X310±10 mm(Ht) from seat. Overall height shall be = 765±10 mm. (Model no - GC 919 in Geeken/equivalent in Wipro/Godrej)	EACH			4380.00	36.00			157680.00
135	NS	Supplying & placing executive table in completely knock down conditions with an overall size 1500mm X 750mm X 750mm that is to be assembled at site. The worktop shall be made up of 25mm thick pre-laminated particle board of grade II of IS 12823 with approved laminate and finish as per approved shade. The table top profile shall be in rectangle shape and the edges shall be sealed with 2mm thick thin strip of impermeable PVC that is cut to fit the size of board panel and duly pasted with the assistance of edge banding machine at 200 degree Celsius. The top shall be supported on MS/CRCA rectangle pipe having cross-section area 40mm X 20mm with 1.6mm thick. A pullout keyboard tray shall be provided of 18mm thick Pre-laminated particle board having size 550mm X 280mm. The tray shall be operated on keyboard channel. The table shall be clad with modesty panel which provide structural support for the table. It should be 1mm thick CRCA star perforated sheet connected with both end. The table understructure shall consist of C frame MS/CRCA leg having cross-sectional area 60mm X 30mm. There shall be co-polymer polypropylene shoe provided at the base to avoid scratches on the floor. A mobile pedestal shall be provided with an overall size 400mm X 450mm X 660mm. The pedestal shall be made up of Pre-laminated particle board of grade II of IS 12823. Pedestal side, back, top, facia shall be 18mm thick and drawer base 9mm thick. The pedestal shall have 3 nos. of drawer i.e. 2 box drawer and 1 filing drawer. The drawer shall be operated with SS handle and easily close & open with the assistance of roller channel and ball bearing channel to enable smooth operation. The drawer shall have central locking mechanism in which all the drawer shall be synchronized locked with one single key. The pedestal shall be mounted on injection	EACH			35060.00	4.00			140240.00
136	NS	Supplying & placing cafe table with an overall size 1200mm X 600mm X 750mm. The top of the table shall be made up of 25mm thick Pre-laminated particle board of grade II of IS 12823 with approved laminated. The profile shall be in rectangle shape and the edges shall be sealed with 2mm thick thin strip of impermeable PVC that is cut to fit the size of board panel and duly pasted with the assistance of edge banding machine at 200 degree celsius. The top shall be supported on MS chrome plated pipe frame having cross-section area 30mm X 15mm with 1.6mm thick. The under structure shall be made up of MS chrome plated round pipe having Dia. 63.5mm with 2mm thick. Foot step shall be provided between the pipe frame having Dia. 25.4mm with 1.6mm thick. MS chrome plated moulded leg shall be provided having dia. 25.4mm with 2mm thick. There shall be PPCP shoe provided at the base to avoid scratches on the floor as well as uneven surfacing. The manufacturer shall have quality and safety assurance like ISO-9001:2015, ISO-14001:2015 and ISO-18001:2007, BIFMA membership and AIOTA certification. The board used should meet International Standard of quality, Indian standard IS 12823 grade II should meet long time load bending, screw-withdrawal strength, modulus of rupture and modulus of elasticity bending tested as per IS 2380. (Model no - GC 948 in Geeken/equivalent in Wipro/Godrej)	EACH			16400.00	3.00			49200.00
137	NS	Providing and supplying moving-cum-folding table with an overall size 1200mm X 500mm X 750mm. The worktop shall be made up of 25mm thick Pre-laminated particle board of grade II of IS 12823 with approved laminate and shade. The profile shall be in rectangle shape with round corners and the edges shall be sealed with 2mm thick thin strip of impermeable PVC that is cut to fit the size of board panel and duly pasted with the assistance of edge banding machine at 200 degree Celsius. The table shall be clad with 18mm thick modesty panel made up of Pre-laminated particle board with appropriate edge banding. The legs shall be made of 47mm X 23mm with 1.6mm thick MS capsule pipe. Modesty holding leg frame shall be made of 47mm X 23mm thick MS capsule tube and 3mm thick HR steel welded together. Cross member assembly for top shall be made of 25mm X 25mm with 1.6mm thick MS pipe welded with sheet structure. top folding bracket welded with 15.8mm dia. MS pipe frame. The understructure shall be provided with injection moulded twin wheel nylon castors for ease of movement. The complete steel structure shall be epoxy polyester powder coated to the dry film thickness 40-60µ thick. All the sizes shall have the tolerance of upper and lower deviation of ±10mm for board & ±0.2mm for metal. The manufacturer shall have quality and safety assurance like ISO-9001:2015, ISO-14001:2015 and ISO-18001:2007, BIFMA membership and AIOTA certification. (Model no - TASK 5 in Geeken/equivalent in Wipro/Godrej)	EACH			18340.00	8.00			146720.00

S.NO	J&K SoR 2020/ DSR	DESCRIPTION OF ITEM	UNIT	RATE (INR)			QTY	AMOUNT (INR)		
				J&K SoR	DSR	NS		J&K SoR	DSR	NS
138	NS	Providing and supplying student/training room chair. The seat and back shall be made up of 12mm thick hot pressed plywood padded with high resilience polyurethane foam 40mm thick having density 40kg/m <sup>3</sup> in seat 19mm thick having density 40kg/m <sup>3</sup> in back. The same shall be upholstered with leatherite tapestry 0.8mm thick and 535 GSM. The seat and back shall be arrested together with metal pipe frame. Writing pad shall be provided of 18mm thick plyboard. The frame structure shall be fixed cantilever support type made up of MS/CRCA chrome plated round pipe of Dia. 15mm with 1.5mm thick. There shall be co-polymer polypropylene shoe provided at the base to avoid scratches on the floor. The seat size shall be 460±10 mm(D) X 415±10 mm(W) and back size shall be 455±10 mm(W) X 410±10 mm(H) from seat. Overall height shall be = 840±10 mm, overall depth = 715±10 mm & overall width = 490±10 mm. (Model no - GST 808 in Geeken/Equivalent in Wipro/Godrej)	EACH			7390.00	25.00			184750.00
139	NS	Supplying & placing storage unit with an overall size 900mm X 450mm X 1200mm. The storage shall be made up of Pre-laminated particle board of grade II of IS 12823 with approved laminate and finish as per approved shade. The top shall be made up of 25mm thick and other parts like side, back, shutter, fascia, skirting shall be 18mm thick. The edges shall be sealed with thin strip of impermeable PVC that is cut to fit the size of board panel and duly pasted with the assistance of edge banding machine at 200 degree Celsius. The storage shall be supplied with 2 nos. of shelves. Door shutters shall be provided for opening and closing the storage. The shutter shall be operated with concealed crank hinge and die cast handle as well as proper locking arrangement. To protect the wall from kicks, abrasion and serve as a decorative moulding, skirting shall be provided at bottom. There shall be buffers provided at the bottom to avoid scratches on the floor. The manufacturer shall have quality and safety assurance like ISO-9001:2015, ISO-14001:2015 and ISO-18001:2007, BIFMA membership and AIOTA certification. The boards used should meet international standards of quality and safety, Indian standard IS 12823 grade II should meet long time load bending, screw-withdrawal strength, modulus of elasticity bending tested as per IS 2380. (Model no - STORAGE 11 in Geeken/Equivalent in Wipro/Godrej)	EACH			17720.00	4.00			70880.00
140	NS	Providing, supplying and placing an open display book racks. The overall size of the rack shall be 925mm (W) X 300mm (D) X 1800mm (H). The rack shall be supplied with 4 nos. of adjustable shelves i.e. 5 loading levels. Rack, side panel, skirting shall be made of 0.8mm thick high yield strength CRCA sheet of grade 'D' conforming to IS: 513. Side and top shall be covered with 18mm thick Pre-laminated particle board of grade II of IS 12823. The edges of the board shall be sealed with 2mm thick PVC edge banding. The add-on units can be stacked width wise to form a bank of racks having common panel. Back panel up to the bottom of third rack shall have additional rigidity. The shelves shall have folded constructions which have intrinsic rigidity and high load carrying capacity. Uniformly distributed load capacity per each shelf shall be 80 kg maximum. Each rack shall be provided with stiffener at bottom for strength. Label holder & range indicators on each main unit for inserting labels. All steel components shall be epoxy polyester powder coated to the thickness of 40-60µ. Adjustable leveler shall be provided with metal insert to resist scratches on the floor and also level & support structure. (Model no - GMS 18 in Geeken/Equivalent in Wipro/Godrej)	EACH			24040.00	4.00			96160.00
141	NS	Providing and supplying metal book case with an overall size 915 mm (W) X 320 mm (D) X 1750mm (H). The book case shall be supplied with 4 nos. of individual compartments. Top, back & side panels shall be made of 0.8mm and rest 1mm high yield strength CRCA sheet of grade 'D' conforming to IS: 513. Each door shall have individual locking provision and 4 mm thick transparent glass for clear inside vision secured in a metal frame through rubber gasket. Each door shall have scissor mechanism for receding inside the top of respective compartment which ensures parallel & smooth movement. Each door shall have plastic side end caps as handle which is easy to grip. Each compartment has a storage shelf having Uniformly Distributed Load Capacity of each shelf is 40 Kg maximum. The finish is Epoxy Polyester Powder coated to the thickness of 40-60µ. Adjustable leveler shall be provided with metal insert to resist scratches on the floor and also level & support structure. (Model no - GMS 19 in Geeken/Equivalent in Wipro/Godrej)	EACH			31680.00	16.00			506880.00
142	NS	Providing and placing in position single bed (with storage) with an overall size - 2030mm (L) X 925mm (W) X 790/430mm (H) with metal frame made out of MS/CRCA steel pipe having cross-section area 25mm X 50mm with 1.2 thick and MS angle having size 19mm x 19mm x 1.0mm thick. The side panel and storage shall be made out of 1mm thick high yield strength CRCA sheet of grade 'D' conforming to IS:513. The mattress panel shall be made up of 12mm thick plywood. The storage should be manual openable with the assistance of mattress panel. The legs shall be made of M.S.E.R.W pipe having cross-section area 40mm X 40mm with 1.2 mm thick. All metal part shall be powder coating finish with DFT(Dry Film Thickness) - 35µ min. The PPCP shoes shall be insert into bottom of legs for avoid skretches on the floors. (Model no - Hostel 1 in Geeken/Equivalent in Wipro/Godrej)	EACH			25860.00	31.00			801660.00
143	NS	Overall size of Personal Locker Unit with add on units shall be of dimensions 380mm(W) X 450mm(D) X 1800mm(H) having 2 locker unit. Stackability shall have add - on units that can be stacked width wise to form bank of lockers having common side panel. Each locker shall have 1 nos. of Hanging rod. Locking shall have cam lock with lock lever plus option. Material shall be CRCA 0.8 mm thickness. Shelf shall be uniformly distributed load capacity per each shelf level is 35 Kg maximum. Finish shall be epoxy polyester powder coated to the thickness of 50 microns. Handle/Label holder shall be aesthetically appealing Snap fit ABS plastic handle. Ventilation shall be attractive punched pattern for ventilation. (Model no - GMS 51 in Geeken/Equivalent in Wipro/Godrej)	EACH			18970.00	12.00			227640.00

S.NO	J&K SoR 2020/ DSR	DESCRIPTION OF ITEM	UNIT	RATE (INR)			QTY	AMOUNT (INR)		
				J&K SoR	DSR	NS		J&K SoR	DSR	NS
145	NS	Supplying & placing center table with an overall size 600mm X 600mm X 450mm. The top of the table shall be made up of 12mm thick toughened glass. The top profile shall be in square shape with round corner and the edges shall be in chamfer shape. The top shall be supported on MS chrome plated oval frame with cross-section area 40mm X 20mm with 1.6mm thick. The under structure shall consist of four legs made of MS chrome plated oval pipe having cross-section area 52mm X 26mm with 1.6mm thick. There shall be co-polymer polypropylene shoe provided at the bottom to avoid scratches on the floor. (Model no - Cliff in Geeken/Equivalent in Wipro/Godrej)	EACH			13270.00	3.00			39810.00
146	NS	Supplying and placing modular bed of Overall Size :Length - 2060.0 mm Width - 1733.0 mm Height - 945.0 mm. Material:Bed Structure consist of metal frames made of M.S. Channels in 1.0 mm Thickness.Horizontal plinths and bottom plinth are made of 25 mm Thick Prelaminated Particle Board. Plinth support assembly is made of M.S. 25 mm square pipe in 1.2 mm thickness.Tail board is made of 18 mm thick Prelaminated Particle board with imported H.D.F. foil wrapped decorative trims fixed to it.Side rail is made of 18 mm thick Prelaminated Particle board with imported H.D.F. foil wrapped decorative trims fixed on to it. Mattress panels of Bed are made of 18 mm thick Prelaminated Particle Board with all the exposed edges are edge banded with 0.8 mm thick PVC edge banding.Construction:Knock Down construction. Packets:1 Bed in 2 packets. Finish:18 mm thick Prelaminated Particle Board is in Walnut shade. Metal frames are powder coated in shade Mat Black to the thickness of 50 microns(+10). (Model no - Double Bed in Geeken/Equivalent in Wipro/Godrej)	EACH			68870.00	1.00			68870.00
147	NS	Supplying and placing single bed with an overall size 2060mm (L) x 1131 (B) x 930mm (H). Head and tail panel shall be made of 18mm thick Pre laminated particle board and baton shall be made of 32mm thick MDF board duly bull nose shape. Sides baton shall be made of 32mm thick MDF board (one side full round post forming) and 18mm thick particle board with 2mm thick PVC edge banding . The edge banding shall be pasted with hot melt glue at 200 degree Celsius. Mattress panel shall be made of 18 mm thick particle board. The understructure shall consist of MS channels in 1mm thickness. Horizontal and Bottom Plinth shall be made of 25mm thick Pre laminated particle board. (Model no - Hostel 5 in Geeken/Equivalent in Wipro/Godrej)	EACH			24540.00	2.00			49080.00
148	NS	Supplying & placing storage unit with an overall size 900mm X 450mm X 750mm. The storage shall be made up of Pre-laminated particle board of grade II of IS 12823 with approved laminate and finish as per approved shade. The top shall be 25mm thick and all other profile i.e. side, back, shutter, shelf, skirting shall be 18mm thick. The edges shall be sealed with thin strip of impermeable PVC that is cut to fit the size of board panel and duly pasted with the assistance of edge banding machine at 200 degree Celsius. The storage shall have 1 nos. of adjustable shelf and 2 nos. of door shutters shall be provided for opening and closing the storage. The shutter shall be operated with concealed crank hinge with Al die cast handle as well as MP lock mechanism. To protect the wall from kicks, abrasion and serve as a decorative moulding, skirting shall be provided at bottom. There shall be buffers provided at the bottom to avoid scratches on the floor. The manufacturer shall have quality and safety assurance like ISO-9001:2015, ISO-14001:2015 and ISO-18001:2007, BIFMA membership and AIOTA certification. The boards used should meet international standards of quality and safety, Indian standard IS 12823 grade II should meet long time load bending, screw-withdrawal strength, modulus of elasticity bending tested as per IS 2380. (Model no - Storage 6 in Geeken/Equivalent in Wipro/Godrej)	EACH			11080.00	4.00			44320.00
149	NS	Supplying and placing two seater sofa that shall be constructed from natural hard wood and commercial plywood having inner frame. The thickness of the wood should allow for the heavy tension webbing. The sofa shall have spring attached and also be padded separately. The frame shall be padded with high resilience polyurethane foam having density 45Kg/m <sup>3</sup> in seat and 32Kg/m <sup>3</sup> in back. There shall be cushion arm provided padded with high resilience polyurethane foam having density 32Kg/m <sup>3</sup> . The armrest shall be flap with soft cushion on both side for aesthetically appealing as well as side comfort. The complete structure shall be upholstered with leatherite tapestry 0.8±0.1 mm thick and 535 GSM. The understructure shall have MS powder coated frame having thickness 8mm. There shall be buffers provided at the bottom to avoid scratches on the floor as well as uneven surfacing. The seat size shall be 980±10 mm(W) X 530±10 mm (D) X 380±10 mm (H). Overall width = 1525±10 mm, overall depth = 830±10 mm & overall height = 860±10 mm. (Model no - Sirena 2 in Geeken/Equivalent in Wipro/Godrej)	EACH			41700.00	2.00			83400.00
150	NS	Supplying and placing of hospital Semi Fowler Bed, Detachable Moulded Polymer Head & Foot Panel, Crank Mechanism, Powder Coated, Overall Dimension - 2010mm X 900mm X 600mm. (Model no - GK 1005 in Geeken/Equivalent in Wipro/Godrej)	EACH			43140.00	8.00			345120.00
151	NS	Supplying, placing of Revolving Stool, Cushioned Top, Powder Coated frame, Height Adjustable (510mm - 690mm) (Model no - GK 4001 in Geeken/Equivalent in Wipro/Godrej)	EACH			8260.00	8.00			66080.00
152	NS	Providing, supplying and placing steel almirah in perfectly upright and straight position. The overall size of the almirah shall be 915mm (W) X 485mm (D) X 1980mm (H) including legs. It should be supplied with 4 nos. of adjustable shelves i.e. 5 loading compartments. Door shall be made of 1mm thick and all other components shall be made of 0.8mm thick high yield strength CRCA sheet of grade 'D' conforming to IS: 513. Stiffeners shall be provided in shelf & door. The steel hinged door shall be provided with locking mechanism which is assembled with bolt arrangement. The shelves shall have folded constructions which have intrinsic rigidity and high load carrying capacity. Uniformly distributed load capacity per each shelf shall be 40kg maximum. The complete steel structure shall be constructed by welding and provide finishing with epoxy polyester powder coated to be thickness 40-60µ. (Model no - GMS 14 in Geeken/Equivalent in Wipro/Godrej)	EACH			37570.00	6.00			225420.00

S.NO	J&K SoR 2020/ DSR	DESCRIPTION OF ITEM	UNIT	RATE (INR)			QTY	AMOUNT (INR)		
				J&K SoR	DSR	NS		J&K SoR	DSR	NS
153	NS	Supplying and laying of medium firm single bed mattress of 5inch thickness with double layer support consisting of foam ensures uniform firmness, dryness in humid weather and unmatched air circulation. The double layered Quiltec quilting adds a plush touch, germ protection. (Model no Activa Supportech of Sleepwell/ Equilavent in Peps/Kurl-on).	EACH			15430.00	33.00			509190.00
154	NS	Supplying and laying of medium firm double bed bed mattress of 5inch thickness with double layer support consisting of foam ensures uniform firmness, dryness in humid weather and unmatched air circulation. The double layered Quiltec quilting adds a plush touch, germ protection. (Model no Activa Supportech of Sleepwell/ Equilavent in Peps/Kurl-on)	EACH			23980.00	1.00			23980.00
<b>155</b>		<b>TOTAL FOR SUBHEAD:13</b>						<b>53,208.52</b>	<b>-</b>	<b>-</b>
		<b>TOTAL FOR ALL ITEMS</b>						<b>7,70,43,991.18</b>	<b>1,73,157.87</b>	<b>84,37,904.70</b>
		<b>ADD COST INDEX ON DSR ITEMS (173-118/118)*100= 46.61%</b> <b>2361002.4 * 46.61% = 1100463.22</b>							<b>80,708.88</b>	
156		<b>GRAND TOTAL AMOUNT</b>						<b>8,57,35,762.63</b>		

**Name of work: Construction of Observation cum special home for Boys at Kargil including Furniture, Electrical, PHE, Fire fighting,CCTV services, Fire Alarm, Access Control Services for Social Tribal Welfare Department, UT of Ladakh.**

**ABSTRACT OF COST FOR ELECTRICAL WORKS**

S.NO	PARTICULARS OF WORKS	Estimated Amount
1	ELECTRICAL WORKS- DSR	26,57,275.53
2	ELECTRICAL WORKS- NS ITEMS (SUB-STATION)	24,98,217.00
3	ELECTRICAL WORKS- FANS AND FIXTURES	16,44,343.00
4	CCTV WORKS	21,01,196.00
5	FIRE ALARM	13,29,385.00
6	ACCESS CONTROL	3,72,762.00
	<b>SUB TOTAL</b>	<b>1,06,03,178.53</b>

Name of work: Construction of Observation cum special home for Boys at Kargil including Furniture, Electrical, PHE, Fire fighting,CCTV services, Fire Alarm, Access Control Services for Social Tribal Welfare Department, UT of Ladakh.						
The below mentioned is merely indicative and for guidance & brief description of jobs, but should not be considered limited to this list. Bidder should refer to the detailed tender documents, technical and particular specifications, special conditions of contract, finishes matrix, site conditions and tender drawings, schedule of quantities for detailed items and finishes matrix included in this project. Any discrepancy in the above shall be brought to the notice of NHIDCL in the pre-bid meeting. The all the fixtures, fittings shall be energy efficient conforming to GRIHA rating five for Green Buildings and shall be installed after consideration of -30deg C for Leh.						
S.NO	REF. TO DSR& NS	DESCRIPTION OF ITEM	Unit	Qty.	ESTIMATED	
					Rate	Amount
1	1.3	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed steel 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.				
a	1.3.3	Group C	Each	367.00	1213.00	445171.00
2	1.4	Wiring for twin control light point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed steel conduit, 2 way 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.	Each	14.00	1290.00	18060.00
3	1.54	Wiring for group controlled (looped) light point/fan point/exhaust fan point/ call bell point (without independent switch etc.) with 1.5 sq. mm FRLS PVC insulated copper conductor single core cable in surface/ recessed steel conduit, and earthing the point with 1.5 sq. mm FRLS PVC insulated copper conductor single core cable etc. as required.				
a	1.54.3	Group C	Each	44.00	707.00	31108.00
4	1.5	Wiring for light/ power plug with 2X4 sq. mm FRLS PVC insulated copper conductor single core cable in surface/ recessed steel conduit alongwith 1 No. 4 sq. mm FRLS PVC insulated copper conductor single core cable for loop earthing as required.	Metre	750.00	265.00	198750.00
5	1.7	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed steel conduit as required.				
a	1.7.1	2 X 1.5 sq. mm + 1 X 1.5 sq. mm earth wire	Metre	800.00	208.00	166400.00
b	1.7.4	2 X 6 sq. mm + 1 X 6 sq. mm earth wire	Metre	125.00	356.00	44500.00
c	1.7.8	4 X 4 sq. mm + 2 X 4 sq. mm earth wire	Metre	80.00	406.00	32480.00
d	1.7.9	4X6 sq.mm + 2X6 sq.mm earth wire	Meter	85.00	529.00	44965.00
e	1.7.10	4X10sq.mm + 2X 6 sq.mm earth wire	Meter	50.00	670.00	33500.00
6	1.19	Supplying and drawing co-axial TV cable RG-6 grade, 0.7 mm solid copper conductor PE insulated, shielded with fine tinned copper braid and protected with PVC sheath in the existing surface/ in heavy duty PVC ISI Mark conduit as required.	Metre	250.00	33.00	8250.00
7	1.21	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface recess including cutting the wall and making good the same in case of recessed conduit as required.				
a	1.21.2	25 mm	Metre	250.00	90.00	22500.00
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.				
a	1.24.6	Telephone socket outlet	Each	11	119.00	1309.00
b	1.24.7	TV antenna socket outlet	Each	6	119.00	714.00
c	N.S-1	RJ-45 Internet socket for Cat 6	Each	17	510.00	8670.00
9	Based on DSR AR attached	Supplying and fixing suitable size/module GI box with modular plate and cover in front on surface or in recess, including providing and fixing 3 Nos. 3 pin 5/6 Amp modular socket outlet and 1 No. 16 Amp modular switch, connection, painting etc. as required (For computer power applications). ( For Computer point)	Each	17.00	713.00	12121.00
10	1.31	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 3 pin 5/6 amps modular socket outlet and 5/6 amps modular switch, connection etc. as required. (For light plugs to be used in non residential buildings).	Each	92.00	401.00	36892.00

11	1.32	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 6 pin 5/6 & 15/16 amps modular socket outlet and 15/16 amps modular switch, connection etc. as required.	Each	65.00	495.00	32175.00
12	1.33	Supplying and fixing 3 pin, 5 amp ceiling rose on the existing junction box including connection etc as required.	Each	4.00	65.00	260.00
13	2.2	Providing and fixing following rating and breaking capacity and 4 pole MCCB in existing cubicle panel board including drilling holes in cubicle panel, making connections, etc. as required (D.N series).				
a	2.2.13	40/ 63/ 100 Amp, 30KA, FPMCCB	Each	6.00	7377.00	44262.00
b	2.2.16	250 A,36KA,FPMCCB	Each	1.00	17272.00	17272.00
c	2.2.18	400 A,50KA,FPMCCB	Each	1.00	26182.00	26182.00
14	2.3	Supplying and fixing following way, single pole and neutral, sheet steel, MCB distribution board, 240 V, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/Isolator)				
a	2.3.2	8 way , Double door	Each	6.00	1760.00	10560.00
15	2.4	Supplying and fixing following way, horizontal type three phase and neutral, sheet steel, MCB distribution board, 415 volts, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/Isolator)				
a	2.4.3	8 way (4 + 24), Double door (For power ckt. DBs + Light Load ckt. DB & UPS DBs )	Each	12.00	4601.00	55212.00
16	2.5	Supplying and fixing of following ways surface/ recess mounting, vertical type, 415 V, TPN MCB distribution board of sheet steel, dust protected, duly powder painted, inclusive of 200 A tinned copper bus bar, common neutral link, earth bar, din bar for mounting MCBs (but without MCBs and incomer ) as required . (Note : Vertical type MCB TPDB is normally used where 3 phase outlets are required.)				
a	2.5.1	4 way (4 + 12), Double door	Each	4.00	5651.00	22604.00
17	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.				
a	2.10.1	Single pole	Each	180.00	199.00	35820.00
b	2.10.3	Double pole ( FOR UPS DB )	Each	6.00	556.00	3336.00
18	2.13	Supplying and fixing following rating, four pole, 415 volts, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required.				
a	2.13.1	40 amps 4P ( FOR LIGHT DB)	Each	6.00	832.00	4992.00
b	2.13.2	63 amps 4P ( FOR POWER DB)	Each	6.00	839.00	5034.00
19	2.14	Supplying and fixing following rating, four pole, (three phase and neutral), 415 volts, residual current circuit breaker (RCCB), having a sensitivity current 30 mA in the existing MCB DB complete with connections, testing and commissioning etc. as required.				
a	2.14.2	40 A	Each	12.00	2095.00	25140.00
b	2.14.3	63 A	Each	6.00	2640.00	15840.00
20	2.21	Providing and fixing M.V. danger notice plate of 200 mm X 150 mm, made of mild steel, at least 2 mm thick, and vitreous enameled white on both sides, and with inscription in single red colour on front side as required.	Each	6.00	226.00	1356.00
21	5.2	Supplying and installing following size of perforated Hot Dipped Galvanised Iron cable tray (Galvanisation thickness not less than 50 microns) with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with G.I. suspenders including G.I. bolts & nuts, etc. as required.				
a	4.6.8	300 mm width X 62.5 mm depth X 2.0 mm thickness	Meter	40.00	1085.00	43400.00
		<b>EARTHING</b>				

22	5.2	Earthing with G.I. earth pipe 4.5 metre long, 40 mm dia including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe etc. with charcoal/ coke and salt as required. ( FOR DBs Duct 1&2)	Each	4.00	5308.00	21232.00
23	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. ( FOR DG Body, Main Panel)	Each	4.00	6216.00	24864.00
24	5.6	Earthing with copper earth plate 600 mm X 600 mm X 3 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. ( For DG Neutral)	Each	2.00	11794.00	23588.00
25	5.10	Providing and fixing 25 mm X 5 mm copper strip in 40 mm dia G.I. pipe earth electrode including connection with brass nut, bolt, spring, washer excavation and re-filling etc. as required.	Meter	20.00	1224.00	24480.00
26	5.11	Providing and fixing 25 mm X 5 mm G.I. strip in 40 mm dia G.I. pipe earth electrode including connection with G.I. nut, bolt, spring, washer excavation and re-filling etc. as required.	Meter	60.00	483.00	28980.00
27	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 including connection with G.I. thimble excavation and re-filling as required.	Meter	50.00	188.00	9400.00
28	5.14	Providing and fixing 25 mm X 5 mm copper strip on surface or in recess for connections etc. as required.	Meter	5.00	1009.00	5045.00
29	5.15	Providing and fixing 25 mm X 5 mm G.I. strip on surface or in recess for connections etc. as required.	Meter	40.00	206.00	8240.00
30	5.18	Providing and fixing 6 SWG dia G.I. wire on surface or in recess for loop earthing along with existing surface/ recessed conduit/ submain wiring/ cable as required.	Meter	30.00	37.00	1110.00
		<b>LIGHTNING ARRESTOR</b>				
	<b>A</b>	<b>Air Termination Network:</b>				
31	6.2	Providing and fixing of lightning conductor finial, made of 25 mm dia 300 mm long, G.I. tube, having single prong at top, with 85 mm dia 6 mm thick G.I. base plate including holes etc. complete as required.	Each	5	448	2240.00
32	6.7	Providing and fixing G.I. tape 20 mm X 3 mm thick on parapet or surface of wall for lightning conductor complete as required.(For horizontal run)	Meter	350.00	104.00	36400.00
33	6.8	Providing and fixing G.I. tape 20 mm X 3 mm thick on parapet or surface of wall for lightning conductor complete as required.(For vertical run)	Meter	50.00	163.00	8150.00
34	6.12	Providing and fixing testing joint, made of 20 mm X 3 mm thick G.I. strip, 125 mm long, with 4 nos. of G.I. bolts, nuts, chuck nuts and spring washers etc. complete as required.	Each	5	102	510.00
35	6.14	Providing and laying G.I. tape 32 mm X 6 mm from earth electrode directly in ground as required.	Meter	400.00	176.00	70400.00
36	N.S-2	Supply, installation, testing and commissioning of Lightning Strike counter Model: JMV 7D for counting the number of lightning strikes without any power supply. The Counter should be mounted on the Down Conductor.	Nos.	1	12034	12034.00
	<b>D</b>	<b>Surge Protection Devices:</b>				

37	N.S-3	Supply, installation, testing and commissioning of Class B/Type I 3 Phase Surge Protection Devices as per IEC 62305-4 and tested according to IEC 61643 – 11, DIN Rail mountable with Maximum Continuous Operating Voltage of 320 V and Voltage Protection Level of $\leq 2.5$ kV. Response Time should be less than 100 ns. The maximum impulse test current should be 50 kA (10/350 $\mu$ s) per pole and 100 kA (10/350 $\mu$ s) neutral to protective earth. The surge protection devices shall be enclosed in polycarbonate enclosure of IP 65 rating.	Nos.	1	15844	15844.00
38	N.S-4	Supply, installation, testing and commissioning of Class C/Type II 3 Phase Surge Protection Devices as per IEC 62305-4 and tested according to IEC 61643 – 11, DIN Rail mountable with Maximum Continuous Operating Voltage of 320 V and Voltage Protection Level of $\leq 1.5$ kV. Response Time should be less than 25 ns. The maximum impulse discharge surge current should be 20 kA (8/20 $\mu$ s) per pole and 40 kA (8/20 $\mu$ s) neutral to protective earth. The surge protection devices shall be enclosed in polycarbonate enclosure of IP 65 rating.	Nos.	2	5010	10020.00
39	7.5	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size in the existing RCC/ HUME/ METAL pipe as required.				
a	7.5.1	Upto 35 sq. mm	Meter	115.00	31.00	3565.00
b	7.5.3	Above 95 sq. mm and upto 185 sq. MM	Meter	70.00	64.00	4480.00
40	7.7	Laying and fixing of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size on wall surface as required.				
a	7.7.1	Upto 35 sq. mm (clamped with 1mm thick saddle)	Metre	520.00	39.00	20280.00
41	7.8	Laying and fixing of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size on cable tray as required.				
a	7.8.1	Upto 35 sq. mm (clamped with 1mm thick saddle)	Metre	65.00	33.00	2145.00
42	7.10	Supplying and fixing cable route marker with 10 cm X 10 cm X 5 mm thick G.I. plate with inscription there on, bolted /welded to 35 mm X 35 mm X 6 mm angle iron, 60 cm long and fixing the same in ground as required.	each	4.00	383.00	1532.00
<b>MV CABLE JOINTING &amp; END TERMINATION</b>						
43	9.1	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required.				
a	9.1.1	2 X 6 sq. mm (19mm)	Each	24.00	198.00	4752.00
c	9.2.1	2 X 10 sq. mm (19mm)	Each	20.00	198.00	3960.00
c	9.1.21	3½ X 35 sq. mm (32mm)	Each	16.00	300.00	4800.00
d	9.1.25	3½ X 120 sq. mm (45mm)	Each	8.00	489.00	3912.00
e	9.1.32	4 X 10 sq. mm (25mm)	Each	12.00	219.00	2628.00
f	9.1.33	4 X 16 sq. mm (28mm)	Each	12.00	250.00	3000.00
g	9.1.34	4 X 25 sq. mm (28mm)	Each	2.00	250.00	500.00
44	14.16	Supplying and laying of following size DWC HDPE pipe ISI marked along with all accessories like socket, bend, couplers etc. conforming to IS 14930, Part II complete with fitting and cutting, jointing etc.direct in ground (75 cm below ground level) including excavation and refilling the trench but excluding sand cushioning and protective covering etc., complete as required.				
a	14.16.1	63 mm dia (OD-63 mm & ID-51 mm nominal)	Metre	55.00	209.00	11495.00
b	14.16.2	90 mm dia (OD-90 mm & ID-76 mm nominal)	Metre	40.00	249.00	9960.00
<b>Sub-Total</b>						<b>18,28,381.00</b>
Total Amount for DSR Items						17,78,362.00
Add cost index @46.61% on DSR items						<b>8,28,894.53</b>
<b>TOTAL AMOUNT</b>						<b>26,57,275.53</b>
<b>SCHEDULE -2</b>						
<b>Control cable for DG SET:-</b>						
46	NS-5	Supply and Erection of Rubber Mat of size 2m x 1m x 16 mm thick suitable for 11 KV (ISI mark) complete in all respect.	Each	4.00	1671.00	6684.00
47	NS-6	Supply and fixing in position approved shock treatment chart written in English, Hindi and local language. These charts shall be framed in wooden frame and covered with clear glass.	Each	1.00	712.00	712.00

48	NS-7	Supply and fixing in position the best quality danger notice boards of approved shape and size as required by the local electrical Inspecting Authority written in English, Hindi and local language. (For 440 Volt & 11000 Volts).	Each	1.00	163.00	163.00
49	NS-8	Supply and enameled first aid box of approved make standard medicine complete as per Indian Electricity Act.	Each	1.00	2096.00	2096.00
	*	<b>MAIN LT PANEL</b>				
		Supply, installation, testing and commissioning of powder coated of approved colour compartmentalised cubicle MV Panel fabricated out of 14 SWG thick CRCA sheet steel suitable for operation on 415 Volts, 50Hz, 3 Phase 4 wire AC supply . The panel shall be indoor free standing, floor mounting, dust and vermin proof type, adequate size cable alley with front operated rotary handles for MCCB's complete with gland plates, lifting hooks, ventilating louvers, busbars, Inter connections, earthing, labelling, electrically and Mechanically interlocking , as per specification and drawings, suitable for termination of cables as per single line diagram including. supply and fixing of following switchgear and accessories complete as required. A separate earth copper bus bar of size 25 mm x 5 mm to be provided throughout the length of the panel. The Panel should be extendable type having CPRI test certificate breaking capacity 70 KA and ISO 9001-2008.				
		Note:- The cost of MCCBs, etc. are not included in the panel's cost and shall be paid under separate head. All accessories included in the panel cost such as MCCBs, ACB , rotary handles, Spreader link and its accessories & metering etc. The panel should be got inspected / tested in the factory premises from the Engineer-in-charge / consultant before brought at site after approval of all drawings of the panel.				
50	NS-9	<b>MAIN L.T.PANEL</b>				
		<b>INCOMER FEEDER</b>				
		MCCB FP 250A. 36KA. = 1NO.				
		<b>METERING SET</b>				
		Voltmeter with VSS = 1NO.				
		Ammeter with ASS = 1NO.				
		RYB Indication Lamp LED = 3NO.				
		250/5Amp. 15 VA CL-1 Current Transformer = 3NO.				
		06Amp. Control SP MCB. = 3NO.				
		CT Short Link = 3NO.				
		<b>OUTGOING FEEDER</b>				
		MCCB FP 63A. 25KA. For VDB PDB-1 = 1NO.				
		Spreader Links = 1NO.				
		Extended Rotary Handle = 1NO.				
		MCCB FP 63A. 25KA. For VDB PDB-2 = 1NO.				
		Spreader Links = 1NO.				
		Extended Rotary Handle = 1NO.				
		MCCB FP 63A. 25KA. For UPS 10KVA = 1NO.				
		Spreader Links = 1NO.				
		Extended Rotary Handle = 1NO.				
		MCCB FP 63A. 25KA. For SPARE = 1NO.				
		Spreader Links = 1NO.				
		Extended Rotary Handle = 1NO.				
		MCCB FP 40A. 25KA. For VDB LDB-1 = 1NO.				
		Spreader Links = 1NO.				
		Extended Rotary Handle = 1NO.				
		MCCB FP 40A. 25KA. For VDB LDB-2 = 1NO.				
		Spreader Links = 1NO.				
		Extended Rotary Handle = 1NO.				
		MCCB FP 40A. 25KA. For Water Lifting Pump = 1NO.				
		Spreader Links = 1NO.				
		Extended Rotary Handle = 1NO.				
		MCCB FP 40A. 25KA. For Feeder Pillar = 1NO.				
		Compound Lighting = 1NO.				
		Spreader Links = 1NO.				
		Extended Rotary Handle = 1NO.				
		Dummy = 2NO.				
		<b>SIZE :-L=1900XH=1725XD=350</b>				
		<b>ENCLOSURE &amp; ACCESSORIES</b>				

		Fabrication in 1.6/2mm.CRCA Sheet Powder Coating in Siemens Gray Shade, Cable Entry will be Top & Bottom Suitable for Cable ,Lock, Rubber Gasket, hardware etc.				
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		<b>BUS BAR &amp; HARDWARE</b>				
		300A. 4P Aluminium Main Bus Bar,Load wise Sub Feeder Bus Bar Colour Coated Heat Shrink Bus Bar sleeve Nut-Bolt,Washer ,Hardware etc.				
		<b>WIRING &amp; ACCESSORIES</b>				
		Power & Control Wiring will be (ISI 1100V) flamc smoke FRLS PVC Single Core Copper Wire,Copper Lugs, PVC Sleeve, Ferruels Numbers, Hardware & Labour etc.	Each	1.00	197604.00	197604.00
51	<b>NS-10</b>	<b>10 KVA UPS PANEL</b>				
		<b>INCOMER FEEDER</b>				
		MCCB 63A. FP 25KA				
		Spreader Link				
		Extended Rotary Handle				
		Voltmeter with VSS				
		Ammeter with ASS				
		RYB Indication Lamp LED				
		63/5Amp. 15 VA CL-1 Current Transformer				
		06Amp. Control SP MCB				
		CT Short Link				
		<b>OUTGOING FEEDER</b>				
		MCB DP 32 A 10KA. (For UPS DBs) = 6 NO.				
		MCB DP 32 A 10KA. (For Fire Alarm & CCTV) =2NO.				
		MCB TPN 32 A 10KA. SPARE = 1NO.				
		Dummy				
		<b>SIZE :-L=1100XH=1425XD=350</b>				
		<b>ENCLOSURE &amp; ACCESSORIES</b>				
		Fabrication in 1.6/2.0.CRCA Sheet Powder Coating in Siemens Gray Shade, 75x40mm.Channel Base Frame, Cable Entry will be Top & Bottom Suitable for Cable ,Lock, Rubber Gasket, hardware etc.				
		<b>BUS BAR &amp; HARDWARE</b>				
		100A. Aluminium Main Bus Bar,Load wise Sub Feeder Bus Bar Colour Coated Heat Shrink Bus Bar sleeve Nut-Bolt,Washer ,Hardware etc.				
		<b>WIRING &amp; ACCESSORIES</b>				
		Power & Control Wiring will be (ISI 1100V) Flame Retardent Low Smoke PVC Single Core Copper Wire,Copper Luggs, PVC Sleeve, ferrules, Numbers, Hardware & Labour etc.	Each	1.00	104746.00	104746.00
52	<b>NS-11</b>	<b>Technical Specification for 10KVA Online UPS With battery Backup of 30 minutes on SMF batteries.</b>				
	<b>UPS System Description</b>	Supply Installation testing and commissioning of 10KVA/ 9KW True Online , DSP Controlled online UPS in with 3 phase AC input (Input Voltage Range 320V to 480V, 50Hz ) and 3 phase AC output 380/400/415V +/- 1%, 50+/- 0.5HZ with 30 minutes backup with 12V SMF batteries Bank with open Rack along with inter connecting battery cables and DC cable from UPS to Battery bank ( min. VAH required for battery Bank =10080 VAH ) ,The UPS should be with IGBT Based Rectifier and Inverter both and with touch screen LCD/LED display for monitoring of its status along with same OEM Make inbuilt Galvanic Isolation Transformer at input side only .UPS should have EPO & cold start feature ,input phase sequence protection as well as correction with manual & automatic bypass inbuilt & dust filters also.	Each	1.00	616865.00	616865.00
	<b>Technology</b>	True Online Double Conversion with IGBT Based Rectifier & IGBT Based Inverter				
	<b>INPUT</b>	Input Voltage window 320 VAC - 480 VAC				
		Input Frequency window 45-65 Hz (Autosensing)				
		Nominal Frequency 50 Hz				
		Total Harmonic Current Distortion (THDI ) should be less than 5 % at full rated load				
		Input power factor (pf) greater than or equal to 0.99				
		UPS should have input phase sequence protection as well as correction feature,EPO & cold start feature & with manual & automatic bypass inbuilt & dust filters .				
	<b>OUTPUT</b>	Output Power Factor should not less than 0.9.				
		Output Power Capacity in watts (KW) 10KVA / 9KW				
		Output Voltage - 380/400 /415 Volts rms, adjustable via the user interface.				
		Total Harmonic Distortion : < 2% for linear load & <5% for 100% non-linear load				
		Output Frequency range 50/60 HZ.				
	<b>UPS overall Efficiency</b>	upto 94% (without isolation TX)				
	<b>Overload Capacity:</b>	A) 110% for 60 min, B)10 minutes at a load representing 125% , C) 60 second at a load representing 150%				
	<b>Parallel option</b>	Parallel option upto 4 Units should be available				

	<b>Bypass</b>	UPS Should Be built in Automatic and Maintenance Bypass				
	<b>Warranty Terms</b>	Two Years on UPS & Batteries with onsite service Support				
	<b>Operating Temperature</b>	40 degree C				
	<b>Noise Level</b>	Less than 70 dBA				
	<b>Battery Bank</b>	UPS should be with SMF battery bank of minimum VAH of 10080 suitable for 30 minutes backup on load PF of 0.8.				
	<b>VDC flexibility</b>	AT least 4 batteries Flexibility /variable VDC ranges.				
	<b>Communications Ports</b>	USB/ RS232 and SNMP optimal for future upgradation				
	<b>Protection required</b>	over volatage,short circuit ,overload at UPS O/p and Under Voltage at battery terminal , input phase sequence protection and correction as inbuilt feature .				
	<b>Certifications &amp; Standard</b>	ISO 9001 & 14001 certification , BIS certified product & Design as per IEC standard EN-62040 ,IP20 Protection				
	<b>Other Features</b>	UPS should have EPO & cold start feature ,input phase sequence protection as well as correction with manual & automatic bypass inbuilt & dust filters also				
		OEM should have 2-3 own /ASP based service centers in the state for better & timely service support , need to share atleast 2 engineers contact details with service centre address details in the region of installation and OEM Turnover should not be less than 300 Crores/year in last 3 financial years with profitability. 10 years presence of OEM in Govt. project segment And Quoted product should be available on OEM Website with as per asked technical compliance.				
53	<b>NS-12</b>	Supply Installation testing & Comissioning of outdoor type silent Generator Set having Capacity 125 KVA , 415 V, 50 Hz, 1500, RPM & suitable BHP as per Specification cosisting of following points	Eah	1.00	1339927.00	1339927.00
	1					
		125KVA ,Three Phase , 415 V, 1500 RPM , H Class insulation				
	2	Engine KOEL/ Cummins/Caterpillar/ Perkins				
	3	Inline 4 Cylinder engine with Electronic Governor				
	4	Engine Control Panel with AMF enabled & IOT Enabled				
	5	Emergency stop push button				
	6	Exhaust System with residential/ hospital grade type silencer including all accessories				
	7	Weather proof acoustic enclosure				
	8	In built Fuel tank of capacity 200 litres with necessary fuel pipe arrangement				
	9	24 volt starting system with 2 x 150 AH battery with all accessories				
	10	Cold staring inbuilt features considering site at Leh				
	11	Supply Installation testing & Comissioning of power & control cable				
	12	Warranty 24 months on complete DG Set				

54	<b>NS-13</b>	<b>XLPE/ PVC INSULATED ARMoured CABLES :</b>				
	*	Supply, testing and commissioning of aluminium / copper conductor XLPE/ P.V.C. insulated armoured and served cable to be laid as per requirement at the site of work including all petty material required to complete the job. upto entire satisfaction of the Eingeer-in-charge/ Consultant.				
a	(i)	Supply Installation Testing and Commisioning of aluminium conductor XLPE insulated armoured and served cable as per requirement at the site of work upto entire satisfaction of the Eingeer-in-charge. :- 6sqmm 2 Core <b>(For Security Lighting)</b>	Meter	340.00	148.00	50320.00
b	(ii)	Supply Installation Testing and Commisioning of aluminium conductor XLPE insulated armoured and served cable as per requirement at the site of work upto entire satisfaction of the Eingeer-in-charge. :- <b>10sq.mm 2Core (For Water Motor &amp; Pump)</b>	Meter	230.00	179.00	41170.00
c	(iii)	Supply Installation Testing and Commisioning of aluminium conductor XLPE insulated armoured and served cable as per requirement at the site of work upto entire satisfaction of the Eingeer-in-charge. :- <b>10sq.mm 4Core (For LDBs)</b>	Meter	25.00	231.00	5775.00
d	(iv)	Supply Installation Testing and Commisioning of aluminium conductor XLPE insulated armoured and served cable as per requirement at the site of work upto entire satisfaction of the Eingeer-in-charge. :- <b>16sq.mm 4Core (For PDBs)</b>	Meter	40.00	273.00	10920.00
e	(v)	Supply Installation Testing and Commisioning of aluminium conductor XLPE insulated armoured and served cable as per requirement at the site of work upto entire satisfaction of the Eingeer-in-charge. :- (Make Polycab / KEI / Havells <b>25sq.mm 4Core (For Vertical Light DBs)</b>	Meter	40.00	356.00	14240.00
f	(vi)	Supply Installation Testing and Commisioning of aluminium conductor XLPE insulated armoured and served cable as per requirement at the site of work upto entire satisfaction of the Eingeer-in-charge. :- (Make Polycab / KEI / Havells <b>35sq.mm 3.5Core (For Vertical Power DBs)</b>	Meter	40.00	413.00	16520.00
g	(vii)	Supply Installation Testing and Commisioning of aluminium conductor XLPE insulated armoured and served cable as per requirement at the site of work upto entire satisfaction of the Eingeer-in-charge. :- <b>120sq.mm 3.5Core (For Main Panel &amp; DG Set)</b>	Meter	70.00	1141.00	79870.00
h	(viii)	Supply Installation Testing and Commisioning of copper conductor XLPE insulated armoured and served cable as per requirement at the site of work upto entire satisfaction of the Eingeer-in-charge. :- <b>10sq.mm 2Core (For UDBs)</b>	Meter	35.00	303.00	10605.00
		<b>TOTAL (SCHEDULE-2)</b>				<b>2498217.00</b>
		<b>FANS &amp; FIXTURES (SCHEDULE-3)</b>				
55	<b>NS -14</b>	Supply, installation, testing and commissioning of IP20 led fixture 12 W +/- 1 W LED Recess Mounted Downlighter Round Shape with minimum system lumen efficacy of 110 lm/W with Pressure Die cast Aluminium Housing and P.F.>0.95 ,THD<10% ,CCT 5700K, CRI 80.The LED with Useful life of 50000 Hrs at L70.. The Input voltage range shall be 150V to 270V .Fixture have Surge Protection 2kV .Driver including cost of all petty materials required to complete the job in all respect. Wipro Cat. No : LD06X-151-XXX-57-XX or Equivalent in Philips and , , GE . (Warranty of 3years).	EACH	155.00	3013	467015.00

56	<b>NS -15</b>	Supply, installation, testing and commissioning of IP20 led fixture 18 W +/- 1 W LED Surface Mounted Downlighter Round Shape with deep inset diffuser with UGR<19 with minimum system lumen efficacy of 110 lm/W with Pressure Die cast Aluminium Housing and P.F.>0.95 ,THD<10% ,CCT 5700K, CRI 80.The LED with Useful life of 50000 Hrs at L70. The Input voltage range shall be 150V to 270V .Fixture have Surge Protection 2kV .Driver . including cost of all petty materials required to complete the job in all respect. Wipro Cat. No : LD06X-221-XXX-57-XX or Equivalent in Philips and , , GE . (Warranty of 3years).	EACH	20.00	3935	78700.00
57	<b>NS -16</b>	Supply, installation, testing and commissioning of Led fixture 600mmX600mm 36 W+/- 1W Recess Mounted with PMMA diffuser with having minimum system lumen efficacy of 110lm/W with CRCA Housing and PMMA Diffuser with P.F.>0.95,THD<10%,CCT 5700 K ,CRI 80.The LED shall be tested with LM80-08 standard with Useful life of 50000 Hrs at L70 . including cost of all petty materials required to complete the job in all respect. Wipro Cat. No : CRCO10R038HP57GL1 or Equivalent in Philips and , , GE . (Warranty of 3years).	EACH	64.00	5635.00	360640.00
58	<b>NS -17</b>	Supply, installation, testing and commissioning of Led fixture 600mmX600mm 36 W+/- 1W Surface Mounted with PMMA diffuser with having minimum system lumen efficacy of 110lm/W with CRCA Housing and PMMA Diffuser with P.F.>0.95,THD<10%,CCT 5700 K ,CRI 80.The LED shall be tested with LM80-08 standard with Useful life of 50000 Hrs at L70 . including cost of all petty materials required to complete the job in all respect. Wipro Cat. No : CRCO10S038HP57GL1 or Equivalent in Philips and , , GE . (Warranty of 3years).	EACH	6.00	5948.00	35688.00
59	<b>NS -18</b>	Supply, installation, testing and commissioning of IP65 Led fixture 40 W+/- 1W with Surface Mounted 4 Feet with Polycarbonate diffuser,minimum lumen output 4000 lumens with P.F.>0.95 with THD<10% ,CCT 5700 K,CRI 80,Surge Protection 2 Kv.The LED with Useful life of 50000 Hrs at L70. The Input voltage range shall be 150V to 270V. including cost of all petty materials required to complete the job in all respect. Wipro Cat. No : LE23-491-XXX-57-XX or Equivalent in Philips and , , GE . (Warranty of 3years).	EACH	15.00	5662.00	84930.00
60	<b>NS -19</b>	Supply, installation, testing and commissioning of led fixture 12 W +/- 1 W LED Surface Mounted Downlighter Round Shape with minimum system lumen efficacy of 100 lm/W with and P.F.>0.95 with THD<10% ,CCT 6000 K,CRI 80.The LED with Useful life of 50000 Hrs at L70.The Input voltage range shall be 150V to 270V . including cost of all petty materials required to complete the job in all respect. Wipro Cat. No : LD06-151-XXX-57SMG1 or Equivalent in Philips and , , GE . (Warranty of 3years).	EACH	58.00	3301.00	191458.00
61	<b>NS -20</b>	Supply, installation, testing and commissioning of IP20 Led fixture 10 W+/- 1W with Surface Mounted 4 Feet Batten Fixture with system efficacy 100lm/W P.F.>0.95 with THD<20% ,CCT 6500 K,CRI 80,Surge Protection 2 Kv.The LED with Useful life of 50000 Hrs at L70.The Input voltage range shall be 150V to 270V . including cost of all petty materials required to complete the job in all respect. Wipro Cat. No : LL20-111-XXX-65NE3 or Equivalent in Philips and , , GE . (Warranty of 3years).	EACH	10.00	605.00	6050.00
62	<b>NS -21</b>	Supply, installation, testing and commissioning of IP20 Led fixture 20 W+/- 1W with Surface Mounted 4 Feet Batten Fixture with system efficacy 100lm/W with Aluminium housing P.F.>0.95 with THD<20% ,CCT 6500 K,CRI 80,Surge Protection 2 Kv.The LED with Useful life of 50000 Hrs at L70.The Input voltage range shall be 150V to 270V . including cost of all petty materials required to complete the job in all respect. Wipro Cat. No : LL20-281-XXX-65AL1 or Equivalent in Philips and , , GE . (Warranty of 3years).	EACH	26.00	1205.00	31330.00

63	<b>NS -22</b>	Supply, installation, testing and commissioning of IP65 Led Bulkhead 10 W+/-1W with with system efficacy 100lm/W with Aluminium housing P.F.>0.95 with THD<10% ,CCT 5700 K,CRI 70,Surge Protection 4 Kv.The LED with Useful life of 50000 Hrs at L70.The Input voltage range shall be 150V to 270V . including cost of all petty materials required to complete the job in all respect. Wipro Cat. No : LW07-141-XXX-57-G1 or Equivalent in Philips and , GE . (Warranty of 3years).	EACH	10.00	2009.00	20090.00
64	<b>NS -23</b>	Supply, installation, testing and commissioning of 45 W, Pole mounted IP66 Street Light with System efficacy of 120 lm/W. LED Street Light shall be made up of Die cast Aluminium Housing for better heat decapitation with secundary optics lens. L70 life of 50000 Hrs. P.F.>0.95 with THD<10% ,CCT 5700 K,CRI 80,Surge Protection 4 Kv internal. Input voltage range of 150V to 270V . including cost of all petty materials required to complete the job in all respect. Wipro Cat. No : LR06-611-XXX-57-XX. or Equivalent in Philips and , GE . (Warranty of 3years).	EACH	22.00	4588.00	100936.00
65	<b>NS -24</b>	Supply, installation, testing and commissioning of 120 W, IP66 Flood Light with System efficacy of 110 lm/W. LED flood Light shall be made up of Die cast Aluminium Housing for better heat decapitation with secundary optics lens. L70 life of 50000 Hrs. P.F.>0.95 with THD<10% ,CCT 5700 K,CRI 80,Surge Protection 4 Kv internal. Input voltage range of 150V to 270V. including cost of all petty materials required to complete the job in all respect. Wipro Cat. No : LF34-132-060-57-XX. or Equivalent in Philips and , GE . (Warranty of 3years).	EACH	5.00	16632.00	83160.00
66	<b>NS -25</b>	Supply, Installation, Testing and Commissioning and erection of <b>Exhaust fan 15"</b> heavy duty 900 rpm complete with shutter (ISI mark) including cost of petty material required to complete the job in all respect.	Each	7.00	3802.00	26614.00
67	<b>NS -26</b>	Supplying, installation, testing and commissioning of A.C. CEILING FAN 48" (1200MM) Rating with DOUBLE BALL BEARING, Energy efficient including cost of petty material required to complete the job in all respect.	Each	48.00	1750.00	84000.00
68	<b>NS -27</b>	Supplying, installation, testing and commissioning of A.C. CEILING FAN 56" (1400MM) Rating with DOUBLE BALL BEARING, Energy efficient including cost of petty material required to complete the job in all respect.	Each	25.00	1932.00	48300.00
69	<b>NS -28</b>	Supply, Installation, Testing and Commissioning and erection of <b>FRESH AIR fan 10"</b> heavy duty 900 rpm complete with shutter (ISI mark) including cost of petty material required to complete the job in all respect.	Each	8.00	3179.00	25432.00
		<b>TOTAL - FANS (SCHEDULE-3)</b>				<b>1644343.00</b>

CCTV works					
Sr.No.	Description	Unit	QTY.	Unit Rates	Amount
1	<b>SITC of Dome Camera Image device/ Sensor - 1/3" Progressive Scan CCD / Progressive Scan CMOS or Better</b>	Each	20	42690	853800
	Resolution - 2 Megapixel (1920 x 1080) or better				
	Frame rate Up to 30 fps or better				
	Lens Type - 3.5 to 9 mm auto varifocal lens Motorized				
	IR Light & Distance - Ir Range upto 30 mtrs or better				
	Signal to Noise Raio - >50db				
	Minimum Illumination - 0.3Lx Color; IR LED ON 0 .0 Lux or better				
	Day Night - Auto Day/Night with switchable IR cut filter				
	Video Compression - H.265,H.264,M-JPEG				
	Camera should have Multiple Streaming- Min. Triple				
	Edge Based Analytics Tracking, line crossing detection ,Enter/leave Field, stationary / moved object ,Loitering, crowd density, follow route(All Analytics to be already included in cost)				
	Storage - SD Card slot should be expandable up to 128 GB				
	System Compatibility - ONVIF Profite S&G				
	Privacy Masking - Minimum 4 Privacy zones or higher				
	Protocols - IPv4/IPv6, HTTP, HTTPS, TCP/IP, UDP, UPnP, ICMP, RTSP,RTP, SMTP, NTP, DHCP, DNS, DDNS				
	Additional Features				
	Noise Reduction - Digitat Noise Reduction on/off.				
	WDR -120dB WDR				
	Atarm Input/Output - 1 Alarm Input, 1 ALarm OutPut				
	Audio Input/Output - 1 audio input/1 audio outPut				
	Environment				
	Operating Environment – Indoor/ Outdoor				
	Operating Temperature -0C to 50 c				
	Intelligent Defog automatically adjusts parameters for best picture in foggy or misty scenes				
	Ingress protection & vandal resident standards - IP66 or better and IK10 or better				
	Certificates: UL, FCC, EN				
2	<b>SITC of Bullet Camera Image device/ Sensor - 1/3" Progressive Scan CCD / Progressive Scan CMOS or Better</b>	Each	7	46201	323407
	Resolution - 2 Megapixel (1920 x 1080) or better				
	Frame rate Up to 30 fps or better				
	Lens Type - 3.5 to 9 mm auto varifocal lens Motorized				
	IR Light & Distance - Ir Range upto 30 mtrs or better				
	Signal to Noise Raio - >50db				
	Minimum Illumination - 0.3Lx Color; IR LED ON 0 .0 Lux or better				
	Day Night - Auto Day/Night with switchable IR cut filter				
	Video Compression - H.265,H.264,M-JPEG				
	Camera should have Multiple Streaming- Min. Triple				
	Edge Based Analytics Tracking, line crossing detection ,Enter/leave Field, stationary / moved object ,Loitering, crowd density, follow route(All Analytics to be already included in cost)				
	Storage - SD Card slot should be expandable up to 128 GB				
	System Compatibility - ONVIF Profite S&G				
	Privacy Masking - Minimum 4 Privacy zones or higher				
	Protocols - IPv4/IPv6, HTTP, HTTPS, TCP/IP, UDP, UPnP, ICMP, RTSP,RTP, SMTP, NTP, DHCP, DNS, DDNS				
	Additional Features				
	Noise Reduction - Digitat Noise Reduction on/off.				
	WDR -120dB WDR				
	Atarm Input/Output - 1 Alarm Input, 1 ALarm OutPut				
	Audio Input/Output - 1 audio input/1 audio outPut				
	Environment				
	Operating Environment – Indoor/ Outdoor				
	Operating Temperature -0C to 50 c				
	Intelligent Defog automatically adjusts parameters for best picture in foggy or misty scenes				
	Ingress protection & vandal resident standards - IP66 or better and IK10 or better				
	Certificates: UL, FCC, EN				

3	Supply, Installation, Testing and comissioning of Network video recorder With 24 TB HD to a maximum of 32 IP cameras,The recorders can be installed with a maximum of 4 internal HDDs for video storage. Option of a 2 HDDs for storage, plus a DVD burner for video export. Max. capacity per HDD: 6 TB. 1 no. E-SATA supported. The recorders comes with a built-in PoE+ switch as an option. 16 alarm i/p & 6 relay o/p.Simultaneous 1/4/9/16 channels playback. H.265/H.264/MJPEG supported. iPhone/Android support. Maximum incoming bandwidth of 320 Mbps. Maximum recording bandwidth of 320 Mbps. 1 I/O for audio. 1 VGA & 2 HDMI outputs. CE, UL & FCC certified.	Each	1	295000	295000
4	SITC of Layer-2 POE plus Gigabit Ethernet 1RU chassis with 24 PoE 10/100/1000 BaseT ports and 4 Gigabit SFP ports. Includes an internal AC power supply 370W atleast or higher power budget) with a power cord.The Access Switch should have 4 ports of 1 G SFP.The Access Switch should provide Non-Blocking switch fabric capacity of 56 Gbps or more. L-2 switch should provide wire-speed packet forwarding of 41 Mpps or more. L-2 Switch should support min 16K MAC addresses and min 4000 active VLANs.	Each	3	68900	206700
5	SITC of 6U rack for switch Mounting with Fan and power Strip, PDU, Hardware Mounting Kit.	Each	2	6500	13000
6	SITC of 22U Equipment Rack with provision for housing all control equipment with front & rear door, Blower for cooling and proper locking arrangements and as per the specifications, complete in all respect upto the entire satisfaction of Engineer - in - Charge of the work.	Each	1	28438	28438
7	SITC of 43" LED Monitor, Full HD, HDMI Port, Component Video Inputs, 1 Digital Audio Out,	Each	1	49500	49500
8	SITC of 2 KVA UPS Overvoltage cut-off device (OVCD),Support for up to 42 AH external battery cabinets, Generator Compatible with Wide Input. Wide Input Voltage window (110 – 280Vac) for Indian Environmental Condition andfor Optimized Battery Performance. UPS would support SNMP Mngaer and web browser On Line With 1 hour Backup	Each	1	75000	75000
9	SITC of CAT6 UTP 24 AWG Patch Cord - 1 mtr with cross separator , Manufactured from stranded wires for longer flex-life , Minimum length of 1m, and maximum length of 5m onforming to the following standards like EN 50173, ISO/IEC 60603-7 & 11801/IEC 60332-1, UL VW-1	Each	23	336	7728
10	SITC of 24-port 19" 1 U jack panel which Should Be made of sheet steel 1.5 mm, Should be 19" 1U straight Patch Panel, 24-port,Should have integral cable management Metal shelf,Should accept Shielded as well as Unshielded jacks, Should have rear cable management shelf metallic powder coated	Each	3	11741	35223
11	SITC of CAT 6 UTP Cable.Transmission frequency of 250 MHz (Minimum),cable Should be 4 pair and Cable should be jacket FR PVC Lbp 69% required with certification report.	P/M	2250	40	90000
12	SITC of PVC pipe25mm dia ISI marked ( Medium ) recessed in wall / ceiling etc. including the cost of PVC bends , inspection boxes , iron hooks and cement concrete etc. complete in all respect upto the entire satisfaction of Engineer-in-charge of work	P/M	1200	56	67200
13	SITC of 3 Core Power Cable 1.5 sqmm.	P/M	400	69	27600
14	SITC of UTP Field Termination Connector IP20 Connection type Toolless Insulation Displacement Connection Category Cat 6 UTP, IP Class IP 20 rated, Certification UL Listed.	Each	26	1100	28600
<b>Total</b>					<b>2101196</b>

Fire Alarm System					
S. no	Description	QTY	Unit	Unit Rates	Amount
1	Supply, Installation, Testing and Commissioning of Microprocessor based Intelligent Addressable Main Fire Alarm Control Panel with Suitable Loops modules and each loop capable of supporting not less than 125 detector and 125 devices; Loop length up to 1.5 km, 600 Character/7" Color LCD touch screen display with bright colors to indicate alarms and events, Integrated Ethernet Ports & 2 Nos of RS 485 for networking, evacuation speaker zones, AHU Modules, Damper switch, Smoke extraction Fans, Lifts.. etc. The Panel shall support 8000 history logs in the non volatile memory (EPROM), power supply unit (230 ± 5% V, 50 hz), 24 hrs back-up with 24 volt sealed maintenance free batteries with automatic charger.The panel should also have IP30 or better protection. The panel shall have seamless integration with EVAC certified Public Address System and shall be complete with all accessories. Fire Alarm Panel and Public Address System should be of same make. Shall be EN54 -Vds/UL-FM Certification	1	Each	175800	175800
2	Supply, Installation, Testing and Commissioning of addressable multisensor detector including mounting base with LED... etc. complete as required with inbuilt Isolators as per NFPA 72 style 7 wiring requirements or with isolator base/module for maintaining operational availability of all elements in the loop in the event of a short circuit and to meet style 7 requirements; Drift Compensation feature & Automatic addressing. Detector should monitor Electromagnetic interference and report to the panel - current and average values. Detector should have IP40 or better protection rating. EMC safety for detector shall be 50 V/m. Shall be EN54 -Vds/UL-FM Certification <b>Make Autronica/ Notifire Honeywell/ Bosch</b>	73	Each	3945	287985
3	Supply, Installation, Testing and Commissioning of addressable Double ACTION manual call point & necessary fixing arrangements with key complete as required. MCP should have IP52 or better protection rating Shall be EN54 -Vds/UL-FM Certification	7	Each	5600	39200
4	Supply, Installation, Testing and Commissioning of Addressable Sounder with sound pressure 90 dB(A), Sounder should have IP40 or better protection rating. Shall be EN54 -Vds/UL-FM Certification.	7	Each	7992	55944
5	Supply, Installation, Testing and Commissioning of Addressable Monitor Module with 1 input and 1 output which shall monitor normally open or normally closed contacts. Shall be EN54 -Vds/UL-FM Certification.	1	Each	7095	7095
6	Supply, Installation, Testing and Commissioning of Addressable Control Relay Module. Relay Control module shall be used for emergency control functions including shutting down Fire dampers in AHU's, tripping of AHU's, Fresh air fans, Ventilation fans, tripping of Access control doorsetc.. Shall be EN54 -Vds/UL-FM Certification	1	Each	8500	8500
7	Supply, Installation, Testing and Commissioning of Glow Type EXIT Sign Board photo luminescent of size 300 mm x 250 mm x 1.5 mm rigid sheet signage containing Zink Sulphate as bare chemical class – 1 material PSPA fixed on 3 mm acrylic sheet on both side showing marking (running man, Arrow and Exit) and hanged with the ceiling with chain and fastener including cost of labour & material required to complete the job in all respect up to the entire satisfaction of Engineer-in-Charge of work	6	Each	2875	17250

8	Supply of EN-54 Certified EVAC controller, with 14x 4 Audio matrix with full DSP functionality. 8 audio inputs, 4 audio outputs, 4 channel output matrix. Shall support single line switching or redundant group A/B switching, amplifier redundancy, 4 x 100V audio inputs and 12 speaker line outputs. 8000 fault, warning and event conditions log. Built in message manager for 100 emergency/business calls up to 85 minutes. 10 control inputs and 13 control outputs. Should be able to send 2 different pre-recorded messages simultaneously. Impedance measurement and Pilot Tone supervision for speaker line monitoring. Shall be able to handle up to 2000Watt load, 20 routers, 16 call stations, 492 speaker zones. Frequency response (ref. 1 kHz) 20 Hz to 20 kHz (-0.5 dB), Signal-to-noise ratio (A-weighted): Line in to line out: 106 dB typical, THD+N < 0.05%, Crosstalk (line level) Line in to line out (0 dB gain): < 100 dB at 1 kHz, Sample rate 48 kHz, DSP processing resolution 24-bit linear A/D and D/A conversion, 48-bit processing. <b>Make Autronica/ Biamp/ Bosch</b>	1	Each	324000	324000
9	Supply of EN-54 certified 2x 500W Class D, high efficiency amplifier. 70/100V loudspeaker output voltages, galvanically separated, 4 automatic selectable audio inputs on RJ45, local input. THD ≤1%. Frequency response, ref. 1 kHz, rated load, -3 dB : 50 Hz to 25 kHz. Signal-to-noise ratio (A-weighted) > 104 dB, Output noise (A-weighted) < -62 dBu, Crosstalk , ref. 1 kHz < -85 dB. Audio input level limiter, RMS output power limiter, high temperature, DC, short circuit, mains undervoltage protection, DC supply undervoltage protection, inrush current limiter, ground fault	1	Each	328000	277125
10	Supply of Ceiling Speaker. Sound pressure level at 6W/1W: 90.8/108.8dB. Effective Frequency Range 80 to 6000Hz. Rated power 6W. Mounting Clamp type.	66	Each	1141	75306
11	Supply, Installation, Testing and commissioning of 2 core multistrand 1.5 sq mm annealed copper conductor speaker cable in existing pipe/ channel I/C connection etc.	120	P/Mtr	58	6960
12	Supply, Installation, Testing and commissioning of single core multistrand 1.5 sq mm annealed copper conductor speaker cable in existing pipe/ channel I/C connection etc.	700	P/Mtr	38	26600
13	Supply and erection of 25 mm dia PVC conduit pipe ISI marked (Medium) recessed in wall /ceiling etc. including cost of PVC bends, inspection box and all other material required to complete the job in all respect to the entire satisfaction of Engineer-in-Charge of work.	320	P/Mtr	56	17920
14	SITC of 12U Equipment Rack with provision for housing all control equipment with front & rear door, Blower for cooling and proper locking arrangements and as per the specifications, complete in all respect upto the entire satisfaction of Engineer - in - Charge of the work.	1	Each	9700	9700
<b>Total</b>					<b>1329385</b>

ACCESS CONTROL SYSTEM						
S.no	Description		Qty	Unit	Rate	Amount
1	<b>Supply Installation Testing and Commissioning of Wire less connectivity Fingerprint and Card Reader for Time Attendance &amp; Access Control</b>		6	Each	27577	165462
	BLE, Fingerprint and RFID Card based Door Controller					
	Credential Support	BLE, Fingerprint and RFID Card				
	IP Rating	Yes (IP65 Design)				
	<b>CAPACITY</b>					
	Max. Users	50,000				
	Max. Template Storage	SFM 6030: 25,000 (1:N) And 100,000 ( 1:1)				
	Event Buffer	5,00,000				
	Wi-Fi	Yes (IEEE 802.11 b/g/n)				
	Bluetooth	Yes (BLE 4.0)				
	Ethernet	Yes				
	RS-232	Yes				
	RS-485	Yes				
	Wiegand	Wiegand IN/OUT Available				
	USB	No				
	<b>INTERFACE</b>					
	Exit Switch	Yes				
	Door Status Sense	Yes (2 State)				
	Door Lock Relay	Yes				
	Reader Power Output	Internal 12 VDC @ 0.250 Amp				
	Aux-In	NO				
	Aux-Out	NO				
	Reader Interface Types	RS-232 & Wiegand IN/OUT				
2	<b>Supply Installation Testing and Commissioning of Controller</b>		1	Each	31960	31960
	Door Controllers on Ethernet	255				
	Door Controllers on RS-485	32				
	Max Users Capacity	25,000				
	Events Buffer	5,00,000				
	<b>COMMUNICATION</b>					
	Wi-Fi	Inbuilt Wi-Fi Module (IEEE 802.11 b/g/n)				
	Inbuilt Bluetooth	Yes				
	Ethernet	Yes 10/100 Mbps				
	Rs 485	Yes				
	USB	One USB Port (for Data Transfer and for 2G-3G-4G /Wi-Fi Dongle)				
	SD Card	Yes (8GB)				
	<b>INTERFACE</b>					
	Aux-In	Yes (4 states-short, open, activated & non-activated)				
	Aux-Out	Form C and SPDT Relay				

<b>HARDWARE</b>						
	CPU	Cortex A8 800 MHz				
	Flash Memory	256 MB				
	RAM Memory	256 MB (DDR3 SDRAM @ 800Mhz)				
	Operating system	Linux based OS				
	Communication Port	Ethernet & RS-485				
	Tamper Detection	Yes				
	RTC	Yes				
<b>AUDIO VISUAL</b>						
	LED	Tricolor LED (Power, Status and Alarm)				
	Buzzer	Yes(12V)				
3	Supply Installation Testing and Commissioning of Proximity Cards EM		100	Each	250	25000
4	Supply Installation Testing and Commissioning of Cat 6 Cable Make D Link		305	P/Mtr	48	14640
5	Supply Installation Testing and Commissioning of Power Cable		100	P/Mtr	58	5800
6	Supply Installation Testing and Commissioning of 12V 2.0 Amp Power Supply Adapter		6	Each	1200	7200
7	Supply Installation Testing and Commissioning of 8 Port PoE 10/100/1000 (190W) switch with 2 SFP uplink ports Make Netgear Model GS510TPP		2	Each	28900	57800
8	Supply Installation Testing and Commissioning of 6 U Equipment Rack		2	Each	6800	13600
9	Supply Installation Testing and Commissioning of 600lbs electromagnetic lock unmonitored type 12V LED Lamp Only		6	Each	3500	21000
10	Supply Installation Testing and Commissioning of Exit button		6	Each	1250	7500
11	Supply Installation Testing and Commissioning of Green Manual call point Emergency door release switches		6	Each	3800	22800
		<b>Total Amount</b>				<b>372762</b>

**Name of work: Construction of Observation and Special home for Boys including Electrical, PHE, Fire fighting,CCTV services for Social Tribal Welfare Department, at Kargil, UT of Ladakh.**

<b>1</b>	<b>PUBLIC HEALTH WORKS</b>			<b>91,45,112.21</b>

Name of work: Construction of Observation and Special home including Electrical, PHE, Fire Alarm-fighting,CCTV, Furniture, Access Control services for Social Tribal Welfare Department, at Kargil UT of Ladakh.								
The below mentioned is merely indicative and for guidance & brief description of jobs, but should not be considered limited to this list. Bidder should refer to the detailed tender documents, technical and particular specifications, special conditions of contract, finishes matrix, site conditions and tender drawings, schedule of quantities for detailed items and finishes matrix included in this project. Any discrepancy in the above shall be brought to the notice of NHIDCL in the pre-bid meeting. The all the fixtures, fittings shall be energy efficient conforming to GRIHA rating five for Green Buildings and shall be installed after consideration of -30deg C for Leh.								
S. No	Ref. No.	Item Description	Unit	QTY	SOR Rate /DSR Rate /MR Rate	Amount (SOR)	Amount (DSR)	Amount (MR)
<b>SUB HEAD - I - SANITARY INSTALLATIONS</b>								
1	DSR-17.78	Providing and fixing white vitreous china extended wall mounting water closet of size 780x370x690 mm of approved shape including providing & fixing white vitreous china cistern with dual flush fitting, of flushing capacity 3 litre/ 6 litre (adjustable to 4 litre/ 8 litres), including seat cover, and cistern fittings, nuts, bolts and gasket etc complete.	Each	12.0	13036.55			1,56,438.60
2	DSR-17.7A	Providing and fixing wash basin with C.I. brackets, 15 mm dia CP Brass single hole basin mixer of approved quality and make, including painting of fittings and brackets, cutting and making good the walls wherever required:-						
	(a)	White Vitreous China Wash basin size 550x400 mm with a 15 mm CP Brass single hole basin mixer	Each	12.0	4403.80		52845.600	
3	DSR- 17.22A	Providing and fixing CP Brass 32mm size Bottle Trap of approved quality & make and as per the direction of Engineer-in-charge.	Each	12.0	883.05		10596.600	
4	MR-1	Providing & fixing CP brass 2 way Bib tab of complete including cutting and making good the walls / metallic sheet for wash basin where required.	Each	12.0	2517.00			30204.000
5	DSR-18.53	Providing and fixing C.P. brass <b>angle valve</b> for basin mixer and geyser points of approved quality conforming to IS:8931						
	18.53.1	15mm nominal bore	Each	36.0	532.00		19152.000	
6	J&K-19.41	Providing and fixing 15 mm nominal bore C.P. brass <b>long body bib cock</b> of approved quality conforming to IS standards and weighing not less than 690 gms	Each	3.0	636.30	1908.900		
7	J&K-19.42	Providing and fixing 15 mm nominal bore C.P. <b>stop cock</b> (concealed) of standard design and of approved make conforming to IS : 8931	Each	18.0	657.30	11831.400		
8	J&K-19.16	Providing and fixing C.P. brass shower rose with 15 or 20 mm inlet						
	19.16.2	150 mm diameter	Each	9.0	288.05	2592.450		
9	MR-2	Providing & fixing C.P. hand spray with lever control ( <b>health faucet</b> ) of and flexible hose 1 m/1.2m long connection with C.P. holder for hand spray complete in all respects as per direction of Engineer-Incharge.	Each	12.0	1510.00			18120.000
10	DSR-17.10	Providing and fixing Stainless Steel A ISI 304 (18/8) kitchen sink as per IS:13983 with C.I. brackets and stainless steel plug 40 mm, including painting of fittings and brackets, cutting and making good the walls wherever required :						
	17.10.1	Kitchen sink with drain board 510x1040 mm bowl depth 250 mm	Each	3.0	5155.95		15467.850	
11	MR-3	Providing and fixing wall Mounted C.P brass sink cock with swinging type casted spout with wall flange complete to the satisfaction of Engineer in charge.	Each	3.0	5329.00			15987.000

S. No	Ref. No.	Item Description	Unit	QTY	SOR Rate /DSR Rate /MR Rate	Amount (SOR)	Amount (DSR)	Amount (MR)
12	MR-4	Providing and fixing movable shower seat for handicap toilet complete to the satisfaction of Engineer in charge.	Each	1.0	9163.00			9163.000
13	DSR-17.73	Providing and fixing PTMT <b>towel rail</b> complete with brackets fixed to wooden cleats with CP brass screws with concealed fittings arrangement of approved quality and colour.						
	17.73.2	600 mm long towel rail with total length of 645 mm, width 78 mm and effective height of 88 mm, weighing not less than 190 gms.	Each	9.0	595.50		5359.500	
14	J&K-19.31	Providing and fixing 600x450 mm beveled edge <b>mirror</b> 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	12.0	1,283.05	15396.600		
15	J&K-19.15	Providing and fixing uplasticized PVC connection pipe with brass unions						
	19.15.2	45 cm length						
	19.15.2.1	15 mm nominal bore	Nos.	36.0	87.90	3164.400		
16	MR-5	Providing and Fixing uPVC pipes type -B conforming to IS: 13592 for <b>soil, waste and vent pipes</b> including all fittings rubber ring type (plain or with access door) e.g. bends, junctions, cowls, offsets, access pieces, clean out plug, jointing with rubber ring joints with lubricant etc. fixed with clamps to walls with cement concrete 1:2:4 blocks complete in all respects.						
	a	110 mm dia	Metre	230.0	785.0			180550.000
17	MR-6	Providing, fixing, jointing and testing in position the following <b>uPVC pipes</b> conforming to IS: 4985 of 6 kg/sqcm pressure rating including all fittings, solvent weld joints, testing complete for drainage system cut to required length to be laid under floor including covering all around with cement concrete and making good the same complete as required.						
17.1	(a)	40 mm (OD)	Metre	24.0	34.00			816.000
17.2	(b)	50 mm (OD)	Metre	12.0	311.00			3732.000
18	MR-7	Providing and Fixing 110x110 mm <b>uPVC 'P' trap</b> with Height riser/Saddle as required size fitting with seal 50 mm of self cleansing design floor/urinal trap without vent suspended with supporting clamp or in sunken portion including cutting and making good the walls and floors wherever required complete in all respects.						
	(a)	110 x110 mm outlet	Each	20.00	550.00			11000.000
19	MR-8	Providing and Fixing <b>uPVC floor drain</b> of following size inlet and outlet including cutting and making good the walls and floors wherever required complete in all respects.						
		110 x50mm outlet	Each	7.0	156.0			1092.000
20	MR-9	Providing and fixing <b>END CAP</b> or Clean Out Plug (Ceiling or Floor) with suitable inset keys for opening, male threaded joint with socket fixed to uPVC/SCI pipe complete in all respects.						
		110 mm OD dia	Each	11.0	36.0			396.000
21	MR-10	Providing and fixing 127 mm dia,2 mm thick <b>Stainless steel grating</b> with frame for floor traps or drains of required pattern including cutting and making good the floors complete.						
		127mm dia.	Each	27.0	912.00			24624.000

S. No	Ref. No.	Item Description	Unit	QTY	SOR Rate /DSR Rate /MR Rate	Amount (SOR)	Amount (DSR)	Amount (MR)
22	DSR-12.44	Providing and fixing to the inlet mouth of rain water pipe cast iron grating 15 cm diameter and weighing not less than 440 grams.	Each	6.0	47.25		283.500	
#REF!	J&K -13.115	Providing and fixing C.P. brass chain and rubber plug complete for sink or wash basin : Flexible pipe						
	13.115.2	40 mm dia	Each	3	88.70	266.100		
#REF!	MR-11	Providing and fixing <b>Coat Hook</b> of complete including consumable items, cutting and making good the walls where required.	Each	12.00	699.0			8388.000
#REF!	MR-12	Providing and fixing push fit type <b>WC pan connector</b> with high quality polypropylene plastic with rubber sealing washer. The internal rubber gasket in EASI-fit pan connectors and extremely water tight supplied spring loaded seal guard. single mould sealing fins made of flexible EVA body, including bush/adaptor. complete in all respect.	Each	12.00	515.0			6180.000
#REF!	DSR-17.71	Providing and fixing PTMT liquid soap container 109 mm wide, 125 mm high and 112 mm distance from wall of standard shape with bracket of the same materials with snap fittings of approved quality and colour, weighing not less than 105 gms.	Each	2.00	158.6		317.100	
#REF!	MR-13	Providing & fixing of 25mm dia. gunmetal <b>air release valve</b> with all fittings and forged ball valve on header complete as required and as per enclosed specification.	Each	4.00	-			
#REF!	MR-14	Providing & Fixing of <b>Grab bar</b> 600 mm of non slipping grip as per standard specification of use in disabled toilet complete with brackets suitable for wall installation as per approved sample complete in all respect.	Each	1.00	1,852.0			1852.000
#REF!	MR-15	Providing and Fixing <b>SS Swing grab bar</b> , fixed to PVC cleats with C.P. brass screws wherever required with approved make & quality and as per the directions and to the satisfaction of Engineer-in-charge.	Each	1.00	6,594.0			6594.000
#REF!	DSR-18.65	Providing and fixing PTMT soap Dish Holder having length of 138mm, breadth 102mm, height of 75mm with concealed fitting arrangements, weighing not less than 106 gms.	Each	9.00	130.5		1174.500	
#REF!	DSR-17.80	Providing and fixing white vitreous china battery based infrared sensor operated urinal of approx. size 610 x 390 x 370 mm having pre & post flushing with water (250 ml & 500 ml consumption), having water inlet from back side, including fixing to wall with suitable brackets all as per manufacturers specification and direction of Engineer-in-charge.	Each	4.00	6913.90		27655.600	
#REF!	DSR-8.1	Providing and fixing stone slab with table rubbed, edges rounded and polished, of size 75x50 cm deep and 1.8 cm thick, fixed in urinal partitions by cutting a chase of appropriate width with chase cutter and embedding the stone in the chase with epoxy grout or with cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 6 mm nominal size) as per direction of Engineer-in-charge and finished smooth.						
	8.10.2	Granite Stone of approved shade	sqm	4.00	3216.90		12867.600	

S. No	Ref. No.	Item Description	Unit	QTY	SOR Rate /DSR Rate /MR Rate	Amount (SOR)	Amount (DSR)	Amount (MR)
<b>SUB HEAD - II - INTERNAL WATER SUPPLY</b>								
<b>34</b>	DSR-18.4	Providing and fixing 3 layer PP-R (Poly propylene Random copolymer) pipes confirming to IS 15801, UV stabilized & anti - microbial fusion welded, having thermal stability for hot & cold water supply, including all PP - R plain & brass threaded polypropylene random fittings, i/c fixing the pipe with clamps at 1.00 m spacing. This includes testing of joints complete as per direction of Engineer-in-Charge.						
<b>Internal Exposed on walls</b>								
34.01	18.4.1	PN - 16 Pipe, 20mm OD (SDR-7.4)	M	65.0	232.35		15102.750	
34.02	18.4.2	PN - 16 Pipe, 25mm OD (SDR-7.4)	M	110.0	287.80		31658.000	
34.03	18.4.3	PN - 16 Pipe, 32mm OD (SDR-7.4)	M	155.0	344.55		53405.250	
34.04	18.4.4	PN - 16 Pipe, 40mm OD (SDR-7.4)	M	20.0	498.65		9973.000	
34.05	18.4.5	PN - 10 Pipe, 50mm OD (SDR-11)	M	50.0	638.90		31945.000	
<b>35</b>	DSR-18.45	Providing and fixing 3 layer PP-R (Poly propylene Random copolymer) pipes confirming to IS:15801, UV stabilized & anti - microbial fusion welded, having thermal stability for hot & cold water supply, including all PP - R plain & brass threaded polypropylene random fittings, i/c fixing the pipe with clamps at 1.00 m spacing. This includes the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer-in-Charge.						
<b>Concealed work,including cutting chases and making good the wall etc.</b>								
35.01	18.5.1	PN - 16 Pipe, 20mm OD (SDR-7.4)	M	300.0	394.85		118455.000	
35.02	18.5.2	PN - 16 Pipe, 25mm OD (SDR-7.4)	M	70.0	452.35		31664.500	
35.03	18.5.3	PN - 16 Pipe, 32mm OD (SDR-7.4)	M	26.0	511.65		13302.900	
<b>36</b>	<b>MR-16</b>	Providing & fixing thermal insulation on hot water pipes in polyolefin foam of closed cells structure having density of the foam should be not less than 25-30kg/m3 and the maximum with thermal conductivity K should be 0.032W/mK@ 23 Deg C , the permeability. All joints shall be sealed with aluminim tape.(Soil , Waste , Terrace Tank & Water supply pipe)						
36.01	(a)	20 mm [OD] [9 mm thick insulation]	M	365.0	177.00			64605.000
36.02	(b)	25 mm [OD] [9 mm thick insulation]	M	180.0	182.00			32760.000
36.03	(c)	32 mm [OD] [9 mm thick insulation]	M	181.0	188.00			34028.000
36.04	(d)	40 mm [OD] [9 mm thick insulation]	M	44.0	196.0			8624.000
36.05	(e)	50 mm [OD] [9 mm thick insulation]	M	132.0	209.0			27588.000
36.06	(f)	100 mm [OD] [12 mm thick insulation]	M	230.0	317.0			72910.000
36.07	(g)	Terrace Tank [50 mm thick insulation]	sqm	15.0	1,762.0			26430.000
<b>37</b>	J&K -19.11	Providing and fixing gun metal gate valve with C.I. wheel of approved quality (screwed end)						
37.01	19.11.1A	20 mm nominal bore	Each	46.0	463.65	21327.900		
37.02	19.11.1	25 mm nominal bore	Each	6.0	543.85	3263.100		
37.03	19.11.2	32 mm nominal bore	Each	8.0	617.80	4942.400		
37.04	19.11.3	40mm nominal bore	Each	3.00	704.70	2114.100		
37.05	19.11.4	50 mm nominal bore	Each	5.00	942.75	4713.750		
37.06	19.11.4	65 mm nominal bore	Each	6.00	5351.75	32110.500		
<b>38</b>	J& K-19.12	Providing and fixing ball valve (brass) of approved quality, High or low pressure, with plastic floats complete						
	19.12.3	25 mm nominal bore	Each	4.00	526.05	2104.200		
<b>39</b>	J&K-19.38A	Providing and fixing rectangular high density polyethylene water storage loft tank with cover, conforming to ISI: 12701, colour of opaque white or as approved by Engineer-in-charge. The rate includes making necessary holes for inlet, outlet & over flow pipes. The base support i/c fittings & fixtures for tank shall be paid separately.	per Ltr.	20,000.00	11.25	225000.000		

S. No	Ref. No.	Item Description	Unit	QTY	SOR Rate /DSR Rate /MR Rate	Amount (SOR)	Amount (DSR)	Amount (MR)
<b>SUB HEAD - III - EXTERNAL WATER SUPPLY</b>								
40	DSR-18.6	Providing and fixing 3 layer PP-R (Poly propylene Random copolymer) pipes confirming to IS:15801 UV stabilized & anti - microbial fusion welded, having thermal stability for hot & cold water supply, including all PP - R plain & brass threaded polypropylene random fittings, including trenching, refilling & testing of joints complete as per direction of Engineer-in-Charge.						
<b>External work</b>								
40.01	18.6.3	PN - 10 Pipe, 32mm OD (SDR-11)	M	100.0	301.60		30160.000	
40.02	18.6.4	PN - 10 Pipe, 40mm OD (SDR-11)	M	320.0	397.60		127232.000	
40.03	18.6.5	PN - 10 Pipe, 50mm OD (SDR-11)	M	70.0	543.95		38076.500	
41	DSR-18.6A	Providing and fixing PPR Unions						
41.01	18.6A.1	PPR Union 20mm	M	40.0	259.85		10394.000	
41.02	18.6A.2	PPR Union 25mm	M	6.0	325.40		1952.400	
41.03	18.6A.3	PPR Union 32mm	M	8.0	379.15		3033.200	
41.04	18.6A.4	PPR Union 40mm	M	6.0	442.85		2657.100	
41.05	18.6A.5	PPR Union 50mm	M	6.0	667.65		4005.900	
42	J&K-19.26	Constructing masonry Chamber 30x30x50 cm inside, in brick work in cement mortar 1:4 (1cement :4 coarse sand) for stop cock, with C.I. surface box 100x100x75 mm (inside) with hinged cover fixed in cement concrete slab 1:1.5:3 mix (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size ) including necessary excavation, foundation concrete 1:5:10 (1 cement :5 fine sand : 10 graded stoneaggregate 40 mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3 coarse sand) 12 mm thick, finished with a floating coat of neat cement complete as per standard design.						
	19.26.1	with common burnt clay F.P.S.(non module) brick of class designation 7.5	Each	4.00	1520.50	6082.000		
43	J&K-19.27	Constructing masonry Chamber of specified size, in brick work with common burnt clay (non modular) bricks of class designation 7.5 in cement mortar 1:4 (1cement :4 coarse sand) and R.C.C. top slab 1:1.5:3 mix (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size ) including necessary excavation, foundation concrete 1:5:10 (1 cement :5 fine sand : 10 graded stone aggregate 40 mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3 coarse sand) 12 mm thick finished with a floating coat of neat cement complete as per standard design.						
	19.27.1	For sluice valve, with C.I. surface box 100 mm top diameter, 160 mm bottom diameter and 180 mm deep (inside) with chained lid.						
43.1	19.27.1.1	Chamber 60x60x75 cm	Each	2.00	8906.40	17812.800		
43.20	19.12.3	25 mm nominal bore	Each	4.00	526.05	2104.200		
<b>SUB HEAD - III - SEWERAGE AND DRAINAGE</b>								
44	J&K-2.6	Earth work in bulk excavation by manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 m2 on plan) including disposal of excavated earth lead upto 50 meters and lift upto 1.5 m, as directed by Engineer-in-Charge.						
44.1	2.6.1	All kinds of soil	CUM	177.60	539.35	95788.560		

S. No	Ref. No.	Item Description	Unit	QTY	SOR Rate /DSR Rate /MR Rate	Amount (SOR)	Amount (DSR)	Amount (MR)
45	J&K-2.9	Earth work in excavation by mechanical means (hydraulic excavator) in trenches for foundations, drains, pipes, cables etc. (not exceeding 1.5 m in width) and for shafts, wells, cesspits and the like not exceeding 10 sqm on plan, including dressing of sides and ramming of bottoms lift upto 1.5 m, including getting out excavated earth and disposal of surplus excavated earth as directed, within a lead of 50 metres:						
45.1	2.9.1	All kinds of soil	CUM	3.86	252.05	972.913		
45.2	2.9.2	Ordinary Rock	CUM	0.97	470.00	453.550		
45.3	2.9.3	Hard Rock (Requiring Blasting )	CUM	0.97	784.05	756.608		
46	E&M DSR-14.16	Supplying and laying of following size DWC HDPE pipe ISI marked along with all accessories like socket, bend, couplers etc. conforming to IS 14930, Part II complete with fitting and cutting, jointing etc. direct in ground (75 cm below ground level) including excavation and refilling the trench but excluding sand cushioning and protective covering etc., complete as required.						
	14.16.4	160 mm dia (OD-160 mm & ID-135 mm nominal)	Metre	370.00	458.00		169460.000	
47	J&K-20.2	Providing and laying cement concrete 1:5:10 (1 cement: 5 coarse sand: 10 graded stone aggregate 40 mm nominal size) including bed concrete as per standard design.						
	20.2.1.2	150 mm diameter S.W. pipe	Metre	370.00	729.30	269841.000		
48	J&K-20.3	Providing and fixing square- mouth S.W. gully trap class SP-1 complete with C.I. grating brick masonry chamber with water tight C.I. cover with frame of 300x300 mm size (inside) the weight of cover to be not less than 4.50 kg and frame to be not less than 2.70 kg as per standard design.						
	20.3.3	180 x 150 mm size P type						
	20.3.3.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	Each	7.00	2315.70	16209.900		
49	J&K-20.7	Constructing brick masonry manhole in cement mortar 1:4 ( 1 cement : 4 coarse sand ) with R.C.C. top slab with 1:1.5:3 mix (1 cement : 1.5 coarse sand (zone- III) : 3 graded stone aggregate 20 mm nominal size), foundation concrete 1:4:8 mix (1 cement : 4 coarse sand (zone- III) : 8 graded stone aggregate 40 mm nominal size),inside plastering 12 mm thick with cement mortar 1:3 (1 cement : 3coarse sand) finished with floating coat of neat cement and making channels in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4graded stone aggregate 20 mm nominal size) finished with a floating coat of neat cement complete as per standard design :						
	20.7.2	Inside size 90x80 cm and 60 cm deep including C.I. cover with frame (light duty) 455x610 mm internal dimensions, total weight of cover and frame to be not less than 38 kg (weight of cover 23 kg and weight of frame 15 kg) : 20.7.2.1 With common burnt						
	20.7.2.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	Each	8.00	10971.40	87771.200		
50	J&K-20.8	Extra for depth for manholes						
	20.8.1	Size 90x80 cm						
	20.8.1.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	Metre	2.40	7604.95	18251.880		

S. No	Ref. No.	Item Description	Unit	QTY	SOR Rate /DSR Rate /MR Rate	Amount (SOR)	Amount (DSR)	Amount (MR)
51	J&K-20.9	Constructing brick masonry circular type manhole 0.91 m internal dia at bottom and 0.56m dia at top in cement mortar 1:4 (1 cement : 4 coarse sand), inside cement plaster 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement, foundation concrete 1:3:6 mix (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size), and making necessary channel in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) finished with a floating coat of neat cement, all complete as per standard design : 20.9.10.91 m deep with S.F.R.C. cover and frame (heavy duty, HD-20 grade designation) 560 mm internal diameter conforming to I.S. 12592, total weight of cover and frame to be not less than 182 kg., fixed in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) including centering, shuttering all complete. (Excavation, foot rests and 12mm thick cement plaster at the external surface shall be paid for separately) :						
	20.9.1.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	Each	1.00	10129.85	10129.850		
52	J&K-20.10	Extra depth for circular type manholes						
	20.10.1	Manhole 0.91m internal dia (at bottom) beyond 0.91 m to 1.67 m						
	20.10.1.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	Metre	0.30	6520.35	1956.105		
53	J&K-20.8	Providing orange colour safety foot rest of minimum 6mm thick plastic encapsulated as per IS : 10910 on 12mm dia steel bar conforming to IS : 1786 having minimum cross section as 23 mmx25 mm and over all minimum length 263mm and width as 165mm with minimum 112 mm space between protruded legs having 2 mm tread on top surface by ribbing or chequering besides necessary and adequate anchoring projections on tail length on 138 mm as per standard drawing and suitable to with stand the bend test and chemical resistance test as per specifications and having manufacture's permanent identification mark to be visible even after fixing. including fixing in manholes with 30x20x15 cm cement concrete block 1:3:6 ( 1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) complete as per design.	Each	26.00	438.10	11390.600		
54	J&K-20.23	Constructing brick masonry road gully chamber of specified size with common burnt clay(non modular) bricks of class designation 7.5 in cement mortar 1:4 ( 1 cement : 4coarse sand) including precast R.C.C. horizontal grating with frame complete as per standard design:						
	20.23.1	Chamber size 50x45x60 cm including precast R.C.C grating with frame 500x450 mm horizontal grating.	Each	17.00	4988.95	84812.150		
		<b>SUB HEAD - IV - MODULAR RAIN WATER HARVESTING PIT</b>						
55	MR-17	Construction of modular type rain water harvesting pit 32 cum. (For Recharge purpose) including following items.						
		Drilling of bore well: (90 metre)						
		Injection well insertion Upvc pipe 6" diameter having a load capacity of 6kg/sqm						

S. No	Ref. No.	Item Description	Unit	QTY	SOR Rate /DSR Rate /MR Rate	Amount (SOR)	Amount (DSR)	Amount (MR)
		Injection well insertion slotted pipes for clog resistant of rain water and reducing possibility of carrying soil.						
		Solvent & screws for joining pipes with each other also for joining end caps and bell plugs for bore.						
		Clamps for keeping the pipe safe and holding the pipe while to ground level.						
		Bell plug - supplying and fixing of bell plug with each bore well.						
		End caps - supplying and fixing of end caps at the top of each bore well.						
		Supply of bentonite fore bore wells drilling in order to give support and prevent from collapsing.						
		Gravel filling for packing of empty space in the bore and to provide stability to the inserted pipes.						
		Compressor/Boki cleaning-						
		Earth work excavation with JCB/excavators in all types of soil/Ordinary rock/Hard rock and with a lift up to 5 meter.						
		Material for base work (gravel/ston chips and double washed river sand)						
		Dressing						
		Compaction - of base soil						
		Soil disposal - disposal of extracted soil from the site to inside the boundary walls of the building up to a maximum distance of 0.5km						
		Geo textile - to avoid invasion of soil provide stability to the tank and improve quality of water within the tank with tensile strength.						
		Modular RWH modules material (685x410x408 mm)						
		Backfilling of the area constructed in and around after compacting them properly.						
		FRP Micro filter capable of removing soils.						
		Riser for filter extension.	Set	1	1006735			1006735.000
56	Based on DSR-2018	Construction of brick masonry Desilting chamber of size 200x150x20cm Effective depth before rainy well with precast concrete block in cement mortar 1:4 (1 cement : 4 coarse sand) , foundation concrete 1:4:8 mix (1 cement : 4 coarse sand; 8 graded stone aggregate 40mm nominal size), inside and outside plastering 12mm thick with cement mortar 1:3 (1 cement : 3 coarse sand), finished with a floating coat of neat cement inside and rough plaster on outside, including fixing of grating , neatly finished with 2 nos.manhole cover complete in all respects including necessary excavation, refilling and disposal of surplus earth, complete as per approved drawing. .	Set	1	73,134.00		73134.000	
		<b>SUB HEAD - V- BOREWELL , HARVESTING PIT &amp; PUMPS</b>						
57	J&K-28.1	Boring/ drilling bore well of required dia for casing/ strainer pipe, by suitable method prescribed in IS: 2800(part 1), including collecting samples from different strata, preparing and submitting strata chart/ bore log, including hire and running charges of all equipment tools plants and machineries required for the job, all complete as per direction of Engineer-in-charge upto 90 m depth below ground level.						
	28.1.1	All Types of Soil						
	28.1.1.1	300mm dia	Metre	90	610.85	54976.500		

S. No	Ref. No.	Item Description	Unit	QTY	SOR Rate /DSR Rate /MR Rate	Amount (SOR)	Amount (DSR)	Amount (MR)
58	J&K-28.2	Boring/ drilling bore well of required dia for casing/ strainer pipe, by suitable method prescribed in IS: 2800(part 1), including collecting samples from different strata, preparing and submitting strata chart/ bore log, including hire and running charges of all equipment tools plants and machineries required for the job, all complete as per direction of Engineer-in-charge beyond 90 m & upto 150 m depth below						
	28.2.1	All Types of Soil						
	28.2.1.1	300mm dia	Metre	90	712.65	64138.500		
59	J&K-28.3	Supplying, assembling, lowering and fixing in vertical position in bore well, unplasticized PVC medium well casing (CM) pipe of required dia, conforming to IS: 12818, including required hire and labour charges,						
	28.3.3	200 mm nominal size dia	Metre	180.00	1077.40	193932.000		
60	J&K-28.4	Supplying, assembling, lowering and fixing in vertical position in bore well unplasticized PVC medium well screen (RMS) pipes with ribs, conforming to IS: 12818, including hire & labour charges, fittings & accessories etc. all complete, for all depths, as per direction of Engineer-in-charge.						
	28.4.3	200 mm nominal size dia	Metre	30.00	943.70	28311.000		
61	J&K-28.8	Gravel packing in tubewell construction in accordance with IS: 4097, including providing gravel fine/ medium/ coarse, in required grading & sizes as per actual requirement, all complete as per direction of Engineer-in-charge.	cum	5	860.50	4302.500		
62	J&K-28.12	Development of tube well in accordance with IS : 2800 (part I) and IS: 11189, to establish maximum rate of usable water yield without sand content (beyond permissible limit), with required capacity air compressor, running the compressor for required time till well is fully developed, measuring yield of well by "V" notch method or any other approved method, measuring static level & draw down etc. by step draw down method, collecting water samples &	Hr.	48	723.30	34718.400		
63	J&K-28.13	Providing and fixing suitable size threaded mild steel cap or spot welded plate to the top of bore well housing/ casing pipe, removable as per requirement, all complete for borewell of:						
	28.13.3	200 mm dia	Each	1	561.95	561.950		
64	J&K-28.14	Providing and fixing M.S. clamp of required dia to the top of casing/ housing pipe of tubewell as per IS: 2800 (part I), including necessary bolts & nuts of required size complete.						
	28.14.3	200 mm clamp.	Each	1	1640.20	1640.200		
65	J&K-28.15	Providing and fixing Bail plug/ Bottom plug of required dia to the bottom of pipe assembly of tubewell as per IS:2800 (part I).						
	28.15.3	200 mm dia	Each	1	309.55	309.550		

S. No	Ref. No.	Item Description	Unit	QTY	SOR Rate /DSR Rate /MR Rate	Amount (SOR)	Amount (DSR)	Amount (MR)
66	MR-18	Supplying & installation submersible pumping motor pumpsets ISI marked of approved , equivalent, making connection suitable for tube-well/D.C.B. The job includes screwing and welding of flanges on G.I. riser pipes (65 mm dia B-class minimum 200 meter length with two coat paint) installation, complete fittings accessories with riser pipes jointing of electrical cables other connections making switch board electrical connections including panel, all labour for testing of submersible pump and supply of water to water mains complete in all respects, 15.0 H.P app. motor having discharging capacity 12 to 15 cum/hour against a head of 210 metres.	Set	1	486870			486870.000
67	MR-19	Providing, fixing, commissioning, testing and of open well submersible pump for each pump IP 58 protected electric enclosure comprising of 2 Nos. Electrical Driven Horizontal pumps with all accessories coupled to motor suitable for operation on 200-240 volts, 1 phase 2900 RPM. motor with SS 304 body all accessories such as NRVs, valves, common delivery header complete in all respects.						
		Vertical, inline multistage centrifugal pumping set with stainless steel SS-304 stage casing and SS-304 impellers with stainless steel SS-316L shaft as per IEC standards and GJL250 cast iron suction & discharge casing, connected to TEFC ventilated induction motor of 2 pole, 2900rpm, suitable for 400/440 Volts, 3 phase, 50 Hz A.C.						
		Pressure vessel of non corrosive FRP composite construction lined with NSF and/or FDA listed material, like high density polyethylene with fully replaceable polyurethane. Air cell burst pressure of minimum of 5 times the vessel operating pressure and cycle tested for 2,50,000 cycles.						
		No. and capacity of Pressure Vessel – 01 Nos. x 100 Ltrs						
		Control Panel with programmable logic controller (PLC) for cyclic operation of pumps. Pump working sequence should change after every operation. Contractor overload relays and MCBs should confirm to IEC 898 – 1995/ specifications. Blinking indications for pumps start, trip, low level trip, health supply should be provided in the panel along with the ammeter & voltmeter. Control panel should also consist of cooling fan.						
		Pressure switches bellow type fitted with micro switch and having maximum pressure and differential scale should confirming BS-6134 standards and IP55 protection class.						
		Stainless steel suction and delivery header, ball valve on each pump on section delivery side, non return valves, Y strainer complete in all respect.						
		Ball valves to be used should be Hot Pressed brass OT-58 with stainless steel ball and P.T.F.E seal and O-Ring. NRVs to be used should be with Springs and O-Ring arrangement.						
		Complete set system to be mounted on a common base frame and shall follow following duty.						
		All accessories for running two pumps with dry running protection etc. & with Minimum 4 level Multi level indicators with magnetic type sensor probes complete.						
67.1	a)	<b>DOMESTIC WATER TRANSFER PUMPS FOR OHT</b>						
		No. of Pumps: 2 (1 Working + 1 Stand by )						
		Capacity : 150 LPM						

S. No	Ref. No.	Item Description	Unit	QTY	SOR Rate /DSR Rate /MR Rate	Amount (SOR)	Amount (DSR)	Amount (MR)
		Head : 30m	Set	1	489652			489652.000
67.2	b)	<b>FLUSHING WATER TRANSFER PUMPS FOR OHT</b>						
		No. of Pumps: 2 (1 Working + 1 Stand by )						
		Capacity : 150 LPM						
		Head : 30m	Set	1	459049			459049.000
67.3	c)	<b>IRRIGATION WATER TRANSFER PUMPS FOR OHT</b>						
		No. of Pumps: 2 (1 Working + 1 Stand by )						
		Capacity : 100 LPM						
		Head : 30m	Set	1	431227			431227.000
68	MR-20	Design, fabrication, assembling, wiring, supply, installation, testing and commissioning of motor control centre shall be fabricated out of 14 gauge CRCA sheet steel in form in 3b formation with reinforcement of suitable size angle iron, channel 'T' sections irons and /or flats wherever necessary. Cable gland plates shall be provided on top as well as at the bottom of the panels. Panels shall be treated with all anticorrosive process before painting as per specifications with 2 coats of red oxide primer and final approved shade of powder coated paint. 2 Nos. earthing terminals shall be provided for 3 phase, 4 wire, 50 Hz supply system. Lifting hooks shall also be provided in case of large panels. Approval shall be taken for each panel before fabrication. Cadmium Plated hardware shall be used in fabrication of panels. Quoted rates shall inclusive of cables, cable trays, earthing (in accordance to specification) with earthing from panel to each motor / equipment.						
		<b>MCC for Plumbing system</b>						
		<b>Incoming</b>						
		1 Nos. 160A, 4P MCCB, 35KA, thermal magnetic based release (Ics = Icu = 100%) with with O/L , S/C & E/F protection as per specification and with following accessories						
		1 No. Digital MFM meter and 1 nos. CTs of ratio 100/5A , Class I accuracy and 10 VA burden. digital multifunction meter suitable to measure voltage, Ampere, Frequency, Power Factor with RS-485 Port						
		1 Set of ON/ OFF/TRIP Indicating LED Lamps with 2 Amp MCB.						
		1 Set of phase indicating LED lamps with 2 amp back up MCB.						
		<b>Bus Coupler</b>						
		1 No. 125A, 4P MCCB, 35KA, thermal magnetic based release (Ics = Icu = 100%) with with O/L , S/C & E/F protection with 1 Set of ON/ OFF Indicating LED Lamps with 2 Amp MCB.						
		<b>Bus Bar</b>						
		4P copper bus bars of 200A capacity with heat shrinkable coloured sleeves and i/c, SMC bus bars supports at required intervals complete for cross section, size supports & their spacing etc. for withstanding fault level of 35 KA for 1 sec.						
		<b>Outgoings</b>						
		2 No. MPCB of 63 Amp. i/c 1.1 KW DOL starter and providing outgoing feeder of 3 core, armoured coper cable of size of 6 Sq. mm to <b>Domestic Water Transfer pump (including 1 No. as standby)</b> . Each compartment shall contain auto / manual selector swtich and indicating and pushbutton lamps etc. as required.						
		Spare MCCB of following capacities:						
		63 amps 4P MCCB	2 Nos.					

S. No	Ref. No.	Item Description	Unit	QTY	SOR Rate /DSR Rate /MR Rate	Amount (SOR)	Amount (DSR)	Amount (MR)
		Necessary cable alleys, internal wiring, and interlocking, earthing for all equipment shall also be included.						
		Notes :						
		a. All MPCBs shall be of 35 KA breaking capacity and suitable for motor duty application.						
		b. Provision shall be made to ensure system protection from dry running of the pump						
		c. All incomers and Buscoupler breakers shall be electrical and mechanical interlocked with suitable accessories.						
		d. 1 Nos. Type-2 SPD 65kA 4P with 1No. Red Indicator Light for SPD with 1Set. SPD Back up fuse 1P 50A 20kA including all necessary accessories.						
		For Plumbing System as described above.	Set	1	208658			208658.000
		<b>SUB HEAD - VI- SOLAR WATER HEATING SYSTEM</b>						
69	<b>MR-21</b>	Supply, Installation, Testing & Commissioning of following Solar water heating system						
	<b>a)</b>	2000LPD solar water heating system - Heat Exchanger Type, Hot Water Storage tank made out of SS 316 with insulated & TIG/MIG Welding having 4.0mm Shell Thickness and 4.0mm Dish Thickness with Aluminium Outer Cladding after 100mm Rockwool Insulation having density not less than 48Kg/Meter Cube. With In Built Heat Exchanger of SS304 and glycol as heat exchanger medium, 24Nos. Solar Flat Plate Collector of minimum 2030x1030mm size for minimum 2.0 Sq.Mtr. Absorber material Shall be ETP Grade Copper Fin and Tube. Copper sheet/absorber shall be electroplated with Nalson Black Chrome. The Collector shall be as per IS 12933. With Electrical Heater 10Nos. 6KW , Cold Water inlet, Hot Water outlet, Collector - Inlet and Outlet and Sacrificial Anode Complete with accessories like 4No. Auto Airvent, 4 No. Air Release Valve, 1No. NRV, 2 Nos. Temperature gauge, 6 No. Bronze Ball Valve and suitable MS Stand black Painted after redoxide treatment. Including Loading the Solar Water Heater system on roof and grouting of the system with PCC as per site incharge.	Set	1				
	<b>b)</b>	Control Panel / ACDB for Electrical Heater and recirculation line with Timer and DTC Control in Auto/Mannual Mode including necessary switchger like MCB, Contactor, Indicating Lamp. Housed in Double Door Enclosure, Complete with wiring up to Pump and heater in CPVC Conduit.	Set	1				
	<b>c)</b>	Re Circulation Pumps with duplex inline monoblock type with SS Body and SS Impellers mounted on a stainless steel shaft running on sleeve/ball /roller bearings with Suitable high temperature lubrication to withstand 110 Degree of temperature, with 3.4KLPH 12Mtr Head with 26 SWG Aluminium Sheet Covering (1W+1S)	Set	1				
		total of complete following above items	Set	1	1144019			1144019.000
		<b>SUB HEAD - VII- 10 KLD BIO DIGESTER</b>						
70	<b>MR-22</b>	<b>10 KLD SEWAGE TREATMENT WITH BIO DIGESTER</b>						
		Design, Supply, Installation, Testing & Commissioning of DRDO approved BIO DIGESTER based Sewage Treatment plant of 10 KLD capacity						
		NATURE OF EFFLUENT : DOMESTIC SEWAGE						

S. No	Ref. No.	Item Description	Unit	QTY	SOR Rate /DSR Rate /MR Rate	Amount (SOR)	Amount (DSR)	Amount (MR)
		Civil works pertaining to walls/platform to be paid separately						
		<b>The broad scope of work includes following. Any other part/accessory required for proper functioning (apart from following) shall be deemed to be included in the quoted rates :-</b>						
		DAILY AVERAGE FLOW : 10 CUM. / DAY						
		Raw Sewage Inlet Characteristics :						
		pH : 6.5-8.5						
		BODS : 300-600 mg/l						
		Suspended Solids : 200-450 mg/l						
		COD : 600-800 mg/l						
		The characteristics of the treated discharge shall be as follows:						
		pH : 6.0-8.5						
		BODS : Less than 40-50 mg/l						
		Suspended Solids : Less than 50-100mg/l						
		COD : Less than 100 mg/l						
		Oil & Grease : Less than 05 mg/l						
		Odour : Non Objectionable						
		The Sewage Treatment Plant shall comprise of following:						
		PRELIMINARY WORKS						
		Preparing Shop Drawings						
		Detailed GA drawing, flow diagram, equipment list, power load requirement.	1	Job				
	1	PRETREATMENT DEVICES AND PLANT ACCESSORIES						
		<b>Bar Screen</b>						
	2	Supply, Installation, Testing & Commissioning of FRP Bar Screen Chamber of dimension 800 X 1100 X 800 ( all in mm) for blocking hard items like napkins, pouch, tissue papers etc to flow into Digester with Suitable Lifting Arrangement	1	Nos.				
		Oil & Grease Chamber-SUPREME Oil & Grease Trap of Dimension 3.25x2.5x2.85(all in ft) Capacity : 500 ltrs at the Kitchen outlet area for removal of grease, fats						
		<b>Bio Digester</b>	1					
	3	FRP Bio digester of 4000 x 2200 x 1200 ( all in mm ) dimesnion with DRDO developed ANAROBIC MOLECULAR INNOCULUM BACTERIA ( 30% of Bio Digester Tank capacity)	1	nos				
		Treated Water Storage Tank						
	3.1	Treated Water Storage Tank of 3000 Ltr capacity ( 1700 MM Diameter x 1748 mm Ht)	1	nos				
	3.2	ACF & MGF FILTER along with UV System for disinfection as per bio digester capacity & as per manufacturer	1	complete set				
		<b>Lifting Pump</b>						
	3.3	Sewage Lifting pump (1W+1S) - 1000 SW model in treated water storage tank SS body Model 1000SW 2880 RPM Single phase 1.25HP/1.0KW delivery pipe 40MM with AUTO CUT-OFF Arrangement	1	complete set				
		<b>ELECTRICAL INSTALLATION</b>						
		Electrical Control Panel						

S. No	Ref. No.	Item Description	Unit	QTY	SOR Rate /DSR Rate /MR Rate	Amount (SOR)	Amount (DSR)	Amount (MR)
	3.4	Design, Fabrication, Assembling, Wiring, Supply, Installation, Testing and Commissioning of Motor Control Centre fabricated out of 14 gauge CRCA sheet steel. Cable gland plates shall be provided on top as well as at the bottom of the panels. Panels shall be treated with all anticorrosive process before painting as per specifications with 2 coats of red oxide primer and final approved shade of powder coated paint. 2 Nos. earthing terminals shall be provided for 3 phase, 4 wire, 50 Hz supply system. Lifting hooks shall also be provided in case of large panels. Approval shall be taken for each panel before fabrication. Quoted rates shall be inclusive of cables (in accordance to specification) with earthing from panel to each motor / equipment.	1	complete set				
	3.5	Including all nessary cable, earthing from panel to pump motor.	1	complete set				
	3.6	Installation supervison charges	1	complete set				
		Bio Digester System 10 cum/day complete following above items.	1	complete set	1502758			1502758.000
		<b>TOTAL</b>				<b>1337959.716</b>	<b>911331.350</b>	<b>6471049.600</b>
		COST INEX@46.61% ON DSR ITEMS					424771.542	
<b>TOTAL FOR PUBLIC HEALTH</b>							<b>9145112.208</b>	

**Name of work: Construction of Observation cum Special home for Boys including Electrical, PHE, Fire fighting,,CCTV services for Social Tribal Welfare Department, at Kargil, UT of Ladakh.**

**ABSTRACT OF COST FOR INTERNAL & EXTERNAL FIRE FIGHTING SYSTEM**

SN	DESCRIPTION OF ITEMS	FIRE WORK
1	PACKAGE - INTERNAL & EXTERNAL FIRE FIGHTING SYSTEM	63,44,342.01
	<b>GRAND TOTAL</b>	<b>63,44,342</b>

## SCHEDULE OF QUANTITIES

**Name of work: Construction of Observation cum Special home for Boys including Electrical, PHE, Fire fighting,,CCTV services for Social Tribal Welfare Department, at Kargil, UT of Ladakh.**

The below mentioned is merely indicative and for guidance & brief description of jobs, but should not be considered limited to this list. Bidder should refer to the detailed tender documents, technical and particular specifications, special conditions of contract, finishes matrix, site conditions and tender drawings, schedule of quantities for detailed items and finishes matrix included in this project. Any discrepancy in the above shall be brought to the notice of NHIDCL in the pre-bid meeting. The all the fixtures, fittings shall be energy efficient conforming to GRIHA rating five for Green Buildings and shall be installed after consideration of -30deg C for Leh.

## PACKAGE - INTERNAL &amp; EXTERNAL FIRE FIGHTING SYSTEM

S.No	DSR /MR	Description	Unit	Total Qty	Rate DSR-2018/2019/MR	Amount
<b>FIRE FIGHTING AND HYDRANT SYSTEM</b>						
1	DSR-2019 ITEM NO-1	Supplying, installation, testing and commissioning of Electric driven <b>Main Fire Pump</b> suitable for automatic operation and consisting of following, complete in all respects, as required :				
(a)		Horizontal type, multistage, centrifugal, split casing pump of cast iron body & bronze impeller with stainless steel shaft, mechanical seal conforming to IS 1520.				
(b)		Suitable HP Squirrel cage induction motor, TEFC, synchronous speed 1500 RPM, suitable for operation on 415 volts, 3 phase 50 Hz, AC supply with IP 55 protection for enclosure, horizontal foot mounted type with Class-'F' insulation, conforming to IS-325.				
(c)		M.S. fabricated Common base plate, coupling, coupling guard, foundation bolts etc. as required.				
(d)		Suitable cement concrete foundation duly plastered with anti vibration pads.				
	1.5	2280 lpm at 70 m Head (For Hydrant/Sprinkler Pump)	Set	1	367296.00	3,67,296
		Note: *The head of the pump is selected in a manner so as to give a minimum 3.5kgf/cm <sup>2</sup> pressure at the highest/farthest point.				
2	DSR-2019 ITEM NO-2	Supplying, installation, testing and commissioning of diesel engine driven main fire pump suitable for automatic operation and consisting of following, complete in all respects, as required : <b>(Diesel Driven Pump)</b>				
		Horizontal type, multistage, centrifugal pump of cast of iron body and bronze impeller with stainless steel shaft, mechanical seal conforming to IS 1520.				
		Suitable HP, 1500 RPM water cooled with radiator, diesel engine conforming to relevant IS standard complete with auto starting mechanism, 12 /24 volts electric starting equipment, diesel tank, exhaust pipe extended upto 10 m outside pump house duly insulated with 50 mm thick glass wool with 1.0 mm thick aluminium sheet cladding, residential silencer, instruments and protection as per standard specification, stop solenoid for auto stop in the event of fault with audio indications, painted with post office red colour etc. as required.				
		Suitable HP, 1500 RPM water cooled with radiator, diesel engine conforming to relevant IS standard complete with auto starting mechanism, 12 /24 volts electric starting equipment, diesel tank, exhaust pipe extended upto 10 m outside pump house duly insulated with 50 mm thick glass wool with 1.0 mm thick aluminium sheet cladding, residential silencer, instruments and protection as per standard specification, stop solenoid for auto stop in the event of fault with audio indications, painted with post office red colour etc. as required.				

S.No	DSR /MR	Description	Unit	Total Qty	Rate DSR-2018/2019/MR	Amount
		M.S fabricated, common base plate, coupling, coupling guard, foundation bolts etc. as required.				
		Suitable cement concrete foundation duly plastered and with anti vibration pads.				
	2.5	2280 lpm at 70 m Head	Set	1	610297.00	6,10,297
		Note: *The head of the pump is selected in a manner so as to give a minimum 3.5kgf/cm2 pressure at the highest/farthest point.				
3	DSR-2019 ITEM NO-3	Supplying, installation, testing and commissioning of electric driven pressurisation pump suitable for automatic operation and consisting of following, complete in all respects, as required :				
		Horizontal type, multistage, centrifugal pump of cast iron body and bronze impeller with stainless steel shaft, mechanical seal conforming to IS : 1520.				
		Suitable HP squirell cage induction motor TEFC type suitable for operation on 415 volts, 3 phase 50 Hz AC supply with IP 55 class of protection for enclosure, horizontal foot mounted type with Class-'F' insulation, conforming to IS : 325.				
		M.S.fabricated Common base plate, coupling, coupling guard, foundation bolts etc. as required.				
		Suitable cement concrete foundation duly plastered and with anti vibration pads.				
	3.2	180 lpm at 100 m Head	Set	1	102391.00	1,02,391
<b>ELECTRICAL SYSTEM</b>						
4	DSR-2019 ITEM NO-5	<b>CONTROL PANELS</b>	Set	1	245730.00	2,45,730
	5.1	Fabrication, supply, Insallation testing & commissioning of Electrical control panel of cubical construction, floor mounted type, fabricated out of 2mm thick CRCA sheet, compartmentalised with hinged lockable doors, dust and vermin proof, powder coated of approved shade after 7 tank treatment process, cable alley, inter-connection with suitable size copper conductor cable/solid copper strip, having switchgears and accessories, mountings and internal wiring, earth terminals, numbering etc. complete in all respect, suitable for main fire pump, pressurisation pump & diesel pump set complete as per CPWD specification with following in coming and Outgoings, suitable for operation on 415V, 3 phase, 50Hz Ac Supply with enclosure protection class IP 42 as required :				
		<b>Incomings</b>				
		250A, 50kA 4 Pole MCCB, Ics=100% Icu rating				
		Digital Voltmeter 0-500V with selector switch				
		Ammeter (0-250 A) with selector swtich & CTs etc.				
		LED type RYB phase indicating lamps, ON, OFF, trip indicating lamps				
		Set of Copper Bus Bar 300Amps				
		<b>Outgoings</b>				
		( Note : All outgoing feeders for pumps should have digital Ammeter with selector switches, and LED type ON, OFF, trip indicating lamps)				
		<b>Main Fire Pump</b>				

S.No	DSR /MR	Description	Unit	Total Qty	Rate DSR-2018/2019/MR	Amount
		125 A, 50kA TPN MCCB, Ics=100% Icu, with fully automatic Star/Delta starter suitable for 60 HP pump with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation.				
		<b>Jockey Pump</b>				
		63 A, 50kA TPN MCCB, Ics=100% Icu, with suitable HP fully automatic Star/Delta starter with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation.				
		<b>DIESEL ENGINE CONTROL</b>				
		Control for diesel engine comprising -				
		Automatic/Manual selector switch & 3 attempts starting device, timers and relays as required, push buttons, start/stop in manual mode				
		Indicating lamp for high/ Low Lub. Oil pressure, High Water Temp and Engine on indication				
		Battery charger suitable for 12V/24 V DC with boost and trickle selector switch, 0-30 V DC volt meter, and 0-20 A DC Ammeter				
		All standard relays and accessories for automatic operation of diesel engine				
		<b>System Controller</b>				
		Designing, Supply, Installation, Testing and commissioning of system controller to control operation of main electric fire pump, diesel pump, Pressurization pump, Terrace pump in sequence as per specification consisting of relays, timers. Sensors, annunciation window for fault indication, complete as per specification				
5	DSR-2019 ITEM NO-19	Supplying and fixing of <b>fire brigade connection</b> of cast iron body with gun metal male instantaneous inlet couplings complete with cap and chain as reqd. for suitable dia MS pipe connection conforming to IS 904 as required :				
5.1	19.1	2 way - 100 mm dia M.S. Pipe	Each	1	6590.00	6,590
5.2	19.2	4 way-150 mm dia M.S. Pipe	Each	1	13822.00	13,822
6	MR-1	Providing and fixing fire brigade suction hose coupling (draw out connection) with nut for female coupling as per IS-902 complete with 150mm dia. Suction pipe and foot valve (to be connected to static tank) complete as required and as per enclosed specification.	Each	1	16532.00	16,532
7	DSR-2019 ITEM NO-22	Providing & fixing of <b>pressure switch</b> in M.S. pipe line including connection etc. as required.	Each	4	1508.00	6,032
8	DSR-2018- 18.34	Constructing masonry Chamber 90x90x100 cm inside, in brick work in cement mortar 1:4 (1 cement : 4 coarse sand) for sluice valve, with C.I. surface box 100 mm top diameter, 160 mm bottom diameter and 180 mm deep (inside) with chained lid and RCC top slab 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size ), i/c necessary excavation, foundation concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size ) and inside plastering with cement mortar 1:3 (1 cement : 3 coarse sand) 12 mm thick, finished with a floating coat of neat cement complete as per standard design :With common burnt clay F.P.S.(non modular) bricks of class designation 7.5	Each	1	16134.15	16,134

S.No	DSR /MR	Description	Unit	Total Qty	Rate DSR-2018/2019/MR	Amount
9	DSR-2019 ITEM NO-9	Supplying and fixing single headed <b>internal hydrant valve</b> with instantaneous Gunmetal/Stainless Steel coupling of 63 mm dia with cast iron wheel ISI marked conforming to IS 5290 (Type -A) with blank Gunmetal/Stainless Steel cap and chain as required :	Each	8	5987.00	47,896
9.1	9.2	Single headed Stainless steel				
10	DSR-2019 ITEM NO-10	Supplying and fixing Single headed <b>external yard hydrant valve</b> with 1 No. 63 mm dia instantaneous FM Gunmetal/Stainless Steel coupling and cast iron wheel, ISI marked, conforming to IS 5290 (type A) with blank Gunmetal/Stainless Steel cap and chain as required :	Each	4	5987.00	23,948
10.1	10.2	Single headed Stainless steel				
11	DSR-2019 ITEM NO-18	Supplying & fixing 63 mm dia gun metal <b>short branch pipe</b> with 20 mm nominal internal diameter size nozzle conforming to IS 903 suitable for instantaneous connection to interconnect hose pipe coupling as required :	Each	12	1648.00	19,776
11.1	18.2	Stainless Steel (Grade 304)				
12	DSR-2019 ITEM NO-13	Supplying and fixing <b>orifice plate</b> made out of 6 mm thick stainless steel (Grade 304) with orifice of required size to be fitted between flange & landing valve of external and internal hydrants to reduce pressure at the outlet to the level of 3.5 kg/cm2 complete as required.	Each	6	1291.00	7,746
13	DSR-2019 ITEM NO-16	Supplying and fixing 63 mm dia, 15 m long <b>RRL hose</b> pipe with 63 mm dia male and female couplings duly bound with GI wire, rivets etc. conforming to IS 636 (type-A) as required :	Each	24	4434.00	1,06,416
13.1	16.2	Stainless Steel (Grade 304)				
14	DSR-2019 ITEM NO-17	Supplying and fixing <b>first-aid Hose Reel</b> with MS construction spray painted in post office red, conforming to IS 884 complete with the following as required.	Each	8	8413.00	67,304
		20 mm nominal internal dia water hose thermoplastic (Textile reinforced) type -2 as per IS: 12585				
		20 mm nominal internal dia gun metal globe valve & nozzle.				
		Drum and brackets for fixing the equipments on wall.				
		Connections from riser with 25 mm dia stop gun metal valve & M.S. Pipe and socket.				
	17.1	30 m				
<b>PIPES &amp; VALVES</b>						
15	DSR-2019 ITEM NO-6	Providing laying, testing & commissioning of 'C' class heavy duty <b>MS Pipe</b> conforming to IS 1239/3589 i/c fittings like elbows, tees, flanges, tapers, nuts bolts, gaskets etc. in ground including welding, excavation & providing cement concrete blocks as supports, anticorrosive treatment with coaltar/asphalt tape as per IS 10221, refilling the trench etc. of following sizes complete as required.				
15.1	6.20	150 mm. Dia	M	180	2376.00	4,27,680

S.No	DSR /MR	Description	Unit	Total Qty	Rate DSR-2018/2019/MR	Amount
16	DSR-2019 ITEM NO-7	Providing, laying, testing & commissioning of 'C' class heavy duty <b>MS pipe</b> conforming to IS 3589/IS 1239 including Welding, fittings like elbows, tees, flanges, tapers, nuts bolts, gaskets etc. and fixing the pipe on the wall/ceiling with suitable clamp/support frame and painting with two or more coats of synthetic enamel paint of required shade complete as required :				
16.1	7.1	25 mm dia.	M	27	471.00	12,717
16.2	7.4	50mm dia.	M	70	787.00	55,090
16.3	7.6	80 mm dia.	M	150	1122.00	1,68,300
16.4	7.7	100 mm dia.	M	42	1499.00	62,958
16.5	7.8	150 mm dia.	M	305	2064.00	6,29,520
16.6	7.9	200 mm dia (wall thickness 6.3 mm)	M	55	2926.00	1,60,930
17	DSR-2019 ITEM NO-11	Supplying, fixing, testing and commissioning of <b>butterfly valve</b> of PN 1.6 rating with bronze/gunmetal seat duly ISI marked complete with nuts, bolts, washers, gaskets conforming to IS 13095 of following sizes as required :				
18.1	11.7	200mm dia.	Each	1	14958.00	14,958
18.2	11.6	150mm dia.	Each	10	8699.00	86,990
18.3	11.5	100mm dia.	Each	6	6454.00	38,724
18.4	11.4	80mm dia.	Each	1	4842.00	4,842
18	DSR-2019 ITEM NO-14	Providing, installation, testing and commissioning of <b>non-return valve</b> of following sizes confirming to IS: 5312 complete with rubber gasket, GI bolts, nuts, washers etc.as required :				
19.1	14.7	150 mm dia.	Each	4	17577.00	70,308
19.2	14.4	80 mm dia.	Each	1	7539.00	7,539
19	DSR-2019 ITEM NO-12	Supplying, fixing, testing & commissioning of <b>double flanged sluice valve</b> of rating PN 1.6 with non rising spindle, bronze/gun metal seat, ISI marked complete with nuts, bolts, washers, gaskets and conforming to IS 780 of following sizes as required :				
19.1	12.6	150mm dia.	Each	1	22550.00	22,550
20	DSR-2016- 18.17	Providing and fixing <b>gun metal gate valve</b> with C.I. wheel of approved quality (screwed end) :				
20.1	18.17.1	25 mm nominal bore	Each	12	497.15	5,966
20.2	18.17.4	50 mm nominal bore	Each	8	869.20	6,954
21	DSR-2019 ITEM NO-15	Providing, installation, testing and commissioning of stainless steel <b>Y-strainer</b> fabricated out of 1.6 mm thick stainless steel, Grade 304, sheet with 3 mm dia holes with stainless steel flange.				
21.1	15.3	150 mm dia.	Each	2	10659.00	21,318
22.2	15.1	80 mm dia.	Each	1	4573.00	4,573
22	MR-3	Providing & fixing of 25mm dia. gunmetal <b>air release valve</b> with all fittings and forged ball valve on header complete as required and as per enclosed specification.	Each	3	883.00	2,649
23	MR-4	Providing and fixing following size <b>Pressure gauge</b> (0-15 Kg/Cm <sup>2</sup> ) complete with shut off valve duly calibrated before installation complete as required & as per enclosed specification. 150mm dia.	Each	14	1722.00	24,108

S.No	DSR /MR	Description	Unit	Total Qty	Rate DSR-2018/2019/MR	Amount
24	DSR-2019 ITEM NO-24	Providing, fixing, testing & commissioning of <b>installation control valve</b> of cast iron body, brass/bronze working parts comprising of water motor alarm, bronze seat clapper, clapper arm and hydraulically driven mechanical gong bell to sound continuous alarm when the wet riser/sprinkler system activates, pressure gauges, emergency releases, strainer, pressure switch, cock valve complete with drain valve and bypass, test control box, ball valves, MS pipe of required size, flanges, orifice plate, gasket etc of following sizes as required :	Set	1	47898.00	47,898
24.1	24.3	150 mm dia.				
25	DSR-2019 ITEM NO-20	Supplying and fixing <b>air vessel</b> made of 250 mm dia, 8 mm thick MS sheet, 1200 mm in height with air release valve on top and flanged connection to riser, drain arrangement with 25 mm dia gun metal wheel valve with required accessories, pressure gauge and painting with synthetic enamel paint of approved shade as required.	Set	2	18009.00	36,018
26	MR-5	Providing and fixing reinforced neoprene rubber <b>vibration eliminators/expansion joints</b> (to provide relief from stresses at pipe flanges) suitable for upto 20 kg/cm <sup>2</sup> pressure, complete as per specification.				
26.1	a)	150mm dia.	Each	4	10401.00	41,604
26.1	b)	80mm dia.	Each	2	7646.00	15,292
27	DSR BASED	Providing, fixing, testing & commissioning of MS air vessel tank on top of each riser fabricated from 6mm thick MS plate, 200 mm in diameter and 1.2 m in height with dished ends fabricated from 8mm thick MS plate with Air release valve with stop cock, flanged inlet connection and drain arrangement with 25mm dia valve, pressure gauge with gun metal stop cock complete with all accessories as required and conforming to IS 4736-1968.	Each	1	97065.00	97,065
		Recommended dia. : 450				
		Height of shell : 2000mm				
		Working pressure : 7 Kg/Sq.cm				
		Test Pressure : 10 Kg/Sq.cm				
28	MR-6	Supply, installation, testing and commissioning of Zonal Control Valve inclusive of 1 nos butterfly valve, diam, Flow Switch, water pressure gauges & 25 mm dia ball valve. Auxillary Drain valve with supervisory switch with sight glass with necessary MS / GI piping with threaded fittings of required sizes complete as required.	Set	6	35131.00	2,10,786
29		Providing and fixing modular construction annunciation panel for flow control switches having 3 zones , 1sets				
		Fault indication for each zone				
		Fire/fault hooter.				
		Alarm panel for fire/fault				
		Battery for emergency				
		Battery Charger				
	MR-7	Mains supply	Set	1	34783.00	34,783
30	MR-8	Providing & fixing thermal insulation on fire fighting pipes in polyolefin foam of closed cells structure having density of the foam should be not less than 25-30kg/m <sup>3</sup> and the maximum with thermal conductivity K should be 0.032W/mK@ 23 Deg C , the permeability. All joints shall be sealed with aluminim tape.(fire fighting pipes internal & external)				

S.No	DSR /MR	Description	Unit	Total Qty	Rate DSR-2018/2019/MR	Amount
30.1		25 mm [OD] [9 mm thick insulation]	RM	27	182.00	4,914
30.2		50 mm [OD] [9 mm thick insulation]	RM	70	209.00	14,630
30.3		80 mm [OD] [9 mm thick insulation]	RM	150	268.00	40,200
30.4		100 mm [OD] [12 mm thick insulation]	RM	42	317.00	13,314
30.5		150 mm [OD] [12 mm thick insulation]	RM	485	346.58	1,68,089
30.6		200 mm [OD] [12 mm thick insulation]	RM	55	426.06	23,433
<b>FIRE EXTINGUISHER</b>						
31	MR-9	Supply, installation, testing and commissioning ISI marked (IS:15683) Fire Extinguisher, Carbon-di-oxide type capacity 4.5 Kg. Flat base including valve, discharge hose of not less than 10 mm dia, 1M long and complete in all respects including initial fill with CO2 gas conforming to IS:307-1966 and wall suspension bracket as required as per specifications.	Each	14	11639.00	1,62,946
32	MR-10	Supply, installation, testing and commissioning ISI marked (IS:15683) portable fire extinguisher, water (gas pressure) type capacity 9 ltr. with gun metal cap and nozzle and complete in all respects including initial fill and wall suspension brackets as required as per specifications.	Each	2	12843.00	25,686
33	MR-11	Supply, installation, testing and commissioning of 6kg ABC (Powder Type) Fire Extinguisher. Mild Steel Cylinders ISI marked fitted with pressure indicating gauge, internal tube, squeeze lever type valve fully charged with ABC 90 powder (Mono Ammonium Phosphate) pressured by Nitrogen complete in all respects including wall suspension bracket and conforming to IS:15683 as required as per specifications.	Each	14	5753.00	80,542
34	MR-12	Providing and fixing Clean Agent Modular (ceiling mounted) Type Capacity 5 Kg CE certified Fire Extinguisher filled with HFC 236FAClean Agent Gas. Complete in all respect.	Each	3	43479.00	1,30,437
35	MR-13	Providing and fixing CO2 type fire extinguishers consisting of welded M.S. cylindrical body automatic modular CO2 type extinguisher actuated through a sprinkler head mounted on The extinguisher body finished externally with red enamel with trolley mounted complete with internal charge.(Capacity 22.5 Kg.)	Each	2	33044.00	66,088
						-
		<b>SUB- TOTAL</b>				<b>4700309.17</b>
		TOTAL FOR DSR ITEMS				3527210.55
		COST INDEX @46.61% ON DSR ITEMS				1644032.84
		<b>TOTAL AMOUNT</b>				<b>6344342.01</b>

**SECTION-VII**

**BILL OF QUANTITIES**

**Bill of Quantities**  
**Through EPC Contract**

Tender Inviting Authority: Executive Director (P), National Highways & Infrastructure Development Corporation Limited , RO-Ladakh

Name of Work: "Construction of Observation Home cum Special Home including Civil, Furniture, Electrical, PHE, Fire fighting, CCTV, Access Control, other services at Kargil in the Union Territory of Ladakh"

RFP No: 18/RO-Ladakh/2022-23

Name of the Bidder/ Bidding Firm / Company :

**BILL OF QUANTITIES**

(This BOQ template must not be modified/replaced by the bidder and the same should be uploaded after filling the relevant columns, else the bidder is liable to be rejected for this tender. Bidders are allowed to enter the Bidder Name and Values only )

Sl. No.	Item Description	Quantity	Units	Estimated Rate excluding GST in Rs. P	TOTAL AMOUNT excluding GST in Rs. P	TOTAL AMOUNT excluding GST In Words
1	Construction of Observation Home cum Special Home including Civil, Furniture, Electrical, PHE, Fire fighting, CCTV, Access Control, other services at Kargil in the Union Territory of Ladakh.	1	Nos	10,80,72,000/-		INR ----- ---- Only
Total in Figures						
Quoted Rate in Figures			Select		0.00	INR Zero Only
Quoted Rate in Words		<b>INR Zero Only</b>				