# TENDER FOR CONSTRUCTION AND MARKETING OF HIG HOUSING PROJECT OF MUSSOORIE DEHRADUN DEVELOPMENT AUTHORITY (MDDA) NEAR ISBT DEHRADUN

19/10/2019



Mussoorie Dehradun Development Authority (MDDA) Transport Nagar, Saharanpur Road, Dehradun – 248001 Tel: 0135 – 6603100, Fax: 0135 – 6603103, Email: <u>info@mddaonline.in</u>

# **NOTICE INVITING TENDER**

Sealed offers are invited from experienced and competent bidders meeting prescribed qualifying criteria for the following work:-

# "CONSTRUCTION AND MARKETING OF HIG HOUSING PROJECT OF MUSSOORIE DEHRADUN DEVELOPMENT AUTHORITY NEAR ISBT DEHRADUN"

Last Date of Submission of proposal is 08/11/2019 upto 05:00 p.m.

The **pre-bid meeting** will be held on **31/10/2019 at 01:00 p.m**. in the office of Vice Chairman, Mussoorie Dehradun Development Authority (MDDA), Transport Nagar, Saharanpur Road, Near ISBT, Dehradun-248001, Uttarakhand.

1	Estimated Cost of Work	:	Rs. 43.93 crore + GST
2	Tender Fee (Non-Refundable)	•	Rs. 10,000/- (Rupees Ten Thousand only) including GST in the form of Demand Draft in favour of Secretary MDDA payable at Dehradun.
3	Amount of Earnest Money Deposit	•	Rs. 70.00 Lakhs (Rupees Seventy Lakhs only) in form of FDR/Bank Guarantee in favour of Secretary MDDA payable at Dehradun.
4	Project Completion Period	:	08 (Eight) Months
5	Pre-Bid Meeting	:	31/10/2019 at 03:00 PM in the Office of Mussoorie Dehradun Development Authority, Transport Nagar, Saharanpur Road, Near ISBT, Dehradun- 248001, Uttarakhand.
6	Last date and time for submission of	:	08/11/2019 upto 03:00 PM
	Tender at e-tendering website (www.uktenders.gov.in)		
7	<ul> <li>Last date and time for submission of</li> <li>Copy of Technical Proposal along with EMD, tender</li> <li>cost and power of attorney in the office of Vice</li> <li>Chairman, MDDA.</li> <li>Note: <ul> <li>(i) If in case of discrepancy in hard and soft copy online proposal shall prevail.</li> <li>(ii) Financial proposal shall be submitted online only.</li> </ul> </li> </ul>		08/11/2019 upto 05:00 PM
8	Date of opening of Tenders	•	08/11/2019 at 05:00 PM
	(Technical Bid)	ľ	
9	Date of opening of Tenders (Financial Bid)	:	To be Intimated Later to technically qualified bidders

# **Schedule of Selection**

Full details, specifications, terms and conditions of work shall be available in the Tender Document for above N.I.T., which can be downloaded from MDDA website <u>www.mddaonline.in</u> and e-tendering website <u>www.uktenders.gov.in</u>. Tender Fee and EMD in the form of Demand Draft shall be deposited along with Power of Attorney and a copy shall be annexed with Online Proposal. The tenderer has to ensure that the tender so downloaded is complete along with all corrigendum/addendum, if any. Incomplete Tender shall be rejected out rightly. Tenders received without EMD, Tender Fee and Power of Attorney and documents pertaining to qualifying criteria mentioned in Tender Document will be summarily rejected.

For further query bidders can visit the site and office of MDDA during the office hours on any working day before the submission date of the bid.

Technical and Financial Bid shall be submitted online only and a sealed copy of Technical Bid along with Tender Fee, EMD and Power of Attorney shall be submitted in the office of Vice Chairman Mussoorie Dehradun Development Authority as per the above-mentioned schedule. The Financial part of the technically qualified tenderers only will be opened. Bids received through Telex, Telegraphic or e-mail tenders will not be entertained.

The successful Tenderers shall have to comply with all the provision of labour laws and rules appended there under as applicable from time to time, MDDA reserves the right to accept or reject or cancel any or all tender(s) at anytime at its sole discretion if necessary, without assigning any reason whatsoever.

The purpose of this NIT is to provide interested parties with information to assist the preparation of their bid. Neither MDDA nor any of its authorities or agencies nor any of its respective officers, employees, agents or advisors give any warranty or make any representations, expressed or implied as to the completeness or accuracy of the information contained in this document or any information which may be provided in association with it.

Further, MDDA does not claim that the information is exhaustive. Respondents to this NIT are required to make their own inquiries/ surveys and will be required to confirm, in writing, that they have done so and they did not rely solely on the information in NIT/Tender. MDDA is not responsible if no due diligence is performed by the Respondents

MDDA, reserves the right not to proceed with the Project at site and It also reserves the right to decline to discuss the Project further with any respondent.

No reimbursement of cost of any type or on any account will be paid to persons or entities submitting their Bid.

## **IMPORTANT POINTS:**

- 1.1 Bidder should be an Indian organization.
- 1.2 Bidder must not have been blacklisted or deregistered by any government agencies or public sector undertaking. If so, the same shall be brought to the notice of the Employer.
- 1.3 MDDA reserves the right to accept or reject or cancel any or all tender(s) at anytime at its sole discretion if necessary, without assigning any reason whatsoever. No Bidder shall have any cause of action or claim against MDDA. for rejection of his Bid.
- 1.4 The officer inviting tenders shall have the right of rejecting all or any of the tenders and will not be bound to accept the lowest or any other tender.

# <u>SECTION-I</u> <u>Instructions to Bidders</u>

## 1. Introduction

Mussoorie Dehradun Development Authority (MDDA) henceforth referred as Client/Authority, under look the project of development of HIG Dwelling Units at ISBT Dehradun with the objective of provision of quality housing facilities at affordable prices.

The total estimated project cost of the above project is Rs. 148 Cr. (approx.), the project has been completed till 68% and MDDA intends to appoint an agency to construct the remaining Blocks- A, B, H, J & K as defined in Annexure-1 "Site Plan" and to complete the remaining part of the project till satisfactory completion. The DPR estimates of the balance work for which this Tender has been published is estimated at Rs 43.93 Cr. (approx.).

The successful agency shall also be responsible for overall marketing for selling the dwelling units of the HIG Group Housing project. MDDA shall pay upto 3% of the value of the sale consideration amount (excluding GST) of each Dwelling Units sold (calculated on minimum sale of 5 Dwelling Units), to the successful bidder in a manner as outlined in the tender section

Number of units	338
Туре А	300
Type B	38
Sold	
Туре А	110
Type B	36
Vacant	
Type A	190
Type B	2
Selling price (on completed development)- In Lakh (including GST)	
Selling Price - Type A	₹71.50
Selling Price - Type B	₹ 79.20

Dwelling unit's typology:

MDDA invites Tenders from Construction Agencies/Firms for Construction of non-completed component/remaining work refer Annexure-2, Successful bidder shall do the Civil Works, Electrical works etc. including overall Marketing of HIG Housing Project near ISBT Dehradun. (hereinafter referred as Project). Construction shall be as per applicable CPWD guidelines and specification. Bidders quoting the least cost (L1) shall be considered as successful bidder, the payment will be made as per the actual work done and item wise measurement basis and, the payment of marketing shall be made on the basis of minimum average targeted sales i.e. average 30 units in five (05) months is achieved by the successful bidder.

The scope of successful bidder shall not be limited to construction only but also for marketing of the project.

Guideline & specifications of CPWD, other Indian standards and all statutory guidelines shall be followed:-

- A) Interested bidders may submit their proposals by the date as mentioned in Schedule of Selection process.
- **B**) Technical and Financial bids shall be submitted online separately.
- C) Proposals should be submitted in English.

# 2. Purpose

Bidders for the purpose of preparing offer for carrying out "Construction and Marketing of HIG Housing project of Mussoorie Dehradun Development Authority near ISBT Dehradun". Bidders are requested to do their self-analysis prior to submission of the proposal.

- 1) The Schedule of Quantity is given as Annexure-2. The tenderer has to quote their offer as per the Schedule of Quantities. The tenderer shall quote rate(s) in figures as well as in words. In case of any discrepancy between the two, rate(s) quoted in words shall prevail. In case of discrepancy between quoted rate and amount, rate shall prevail. The payment will be made as per the actual work done and item wise measurement basis and the payment of marketing shall be made on the basis of minimum average targeted sales i.e. average 30 units in five (05) months is achieved by the successful bidder.
- 2) Bidders are advised to examine the available Cost Index/Market Rate while framing their estimate/rates. Rates of DSR are inclusive of GST and Rates of SOR and Market Price are exclusive of GST.
- **3**) The pre-bid meeting will be held on 31/10/2019 at 03:00 p.m. in the office of Vice Chairman, MDDA, Transport Nagar, near ISBT, Dehradun.
- 4) a) Submission of a tender by a tenderer implies that the tenderer has read this notice

and all other Tender Documents visited the site and has made himself aware of the scope for the project, the specifications, local conditions and other factors having bearings on the execution of the work.

- b) While all efforts have been made to avoid errors in the drafting of the tender documents, the Bidder is advised to check the same carefully. No claim on account of any errors detected in the tender documents shall be entertained.
- c) MDDA desires that the bidders, suppliers, and Sub-contractors under the Project, observe the highest standard of ethics during the performance, procurement and execution of such contracts. In pursuance of this requirement, MDDA:

Defines, for the purposes of this provision, the terms set forth below:

- I) "Corrupt Practice" means the offering, giving, receiving, or soliciting, directly or indirectly, anything of value to influence improperly the actions of another party;
- II) "Fraudulent Practice" means any act of submission of forged documentation, or omission, including a misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a financial or other benefit or to avoid an obligation, or to succeed in a competitive bidding process;
- III) "Coercive Practice" means impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party;
- IV) "Collusive Practice" means an arrangement between two or more parties designed to achieve an improper purpose, including influencing improperly the actions of another party.
- Will reject the award of Contract, even at a later stage, if it determines that the bidder recommended/ selected for award/awarded has, directly or through an agent, engaged in Corrupt, Fraudulent, Collusive, Or Coercive Practices in competing for the Contract;

Will reject the award of Contract, even at a later stage, if it determines that the bidder recommended/selected for award/awarded has, directly or through an agent, engaged in Corrupt, Fraudulent, Collusive, Or Coercive Practices in competing for the Contract;

Will declare a party or its successors, including declaring ineligible, either indefinitely or for a stated period of time, to participate in any further bidding/procurement proceedings under the Project, if it at any time determines that the party has, directly or through an agent, engaged in Corrupt, Fraudulent, Collusive, Or Coercive Practices in competing for, or in executing, the contract; and

The Bidder must obtain for himself on his own responsibility and at his own expenses all the information which may be necessary for the purpose of making a

bid and for entering into a contract, must examine the Drawings, must inspect the sites of the work, acquaint himself with all local conditions, means of access to the work, nature of the work and all matters pertaining thereto. MDDA will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.

- d) Each page of the Tender documents should be stamped and signed by the person or persons submitting the Tender in token of his/their having acquainted himself/themselves and accepted the entire tender documents including various conditions of contract. Any Bid with any of the Documents not so signed is liable to be rejected at the discretion of MDDA. The signatures shall be in blue ink.
- e) The bidder shall attach the original authorization letter/power of Attorney as the proof.
- f) The Bidders are expected to carefully examine all the contents of the tender documents including instructions, conditions, terms, specifications, drawings and get clarifications, if required, from MDDA and take them fully into account before submitting their offer. Failure to comply with the requirements as detailed in these documents shall be at the Bidder's own risk. Bidders which are not responsive to the requirements of the tender documents will be rejected.
- g) The bids not meeting the minimum eligibility criteria, Technical Bids not accompanied with EMD and Tender Document Fees of requisite amount in acceptable format, Bids in altered/modified formats, or in deviation with any other requirements stipulated in the tender documents are liable to be rejected.
- h) The Bid submitted on behalf of a Firm shall be signed by all the Partners of the Firm or by a Partner who has the necessary authority on behalf of the Firm to enter into the proposed contract. Otherwise, the bid is liable to be rejected by the MDDA.
- i) The bidders are expected to meet the minimum eligibility criteria as given in the tender document to participate in this tender. MDDA will reject the Bids that do not meet the minimum eligibility criteria as laid down, based on their submission along with the tender documents, even after the bid opening process is concluded.
- j) The bidders shall not tamper or modify any part of the tender documents in any manner. In case in part of the bid is found to be tampered or modified at any stage, the bids are liable to be rejected, the contract is liable to be terminated and the full earnest deposit/ /performance guarantee will be forfeited and the bidder will be liable to be banned from doing any business with MDDA.
- k) Incomplete Price bid shall be liable to be rejected, at the discretion of MDDA. The total bid price shall cover the entire scope of works covered in the tender.
- MDDA shall not be responsible for any postal delay and the bids received after stipulated date & time whatsoever be the reason, the bid is liable to be rejected by the MDDA

## 5) Procedure for submission of bid:

- i) The Tender Fee (non-refundable) of **Rs. 10000/- (Rupees Ten Thousand only**) in the Sealed Envelope in form of Demand Draft in favour of Secretary, MDDA payable at Dehradun.
- ii) Earnest Money Deposit (EMD) of Rs. 70,00,000/- (Rupees Seventy Lakhs only) in the Sealed Envelope in form of Bank Guarantee/FDR in favour of Secretary, MDDA payable at Dehradun.
- iii) The Earnest Money may be accepted only in the following forms:
  - Demand Draft of a Scheduled Bank.
  - Fixed Deposit Receipt (FDR) of a Scheduled Bank in the name of Secretary MDDA payable at Dehradun.
- iv) The Offer of the bidder may not be considered for further evaluation, if the Cost of Tender, Power of Attorney and EMD are not submitted in the form and manner as stated above and their offer is liable to be rejected.
- v) The EMD of unsuccessful tenderer(s) except lowest three will be refunded after finalization of tender process. The Earnest Money deposit submitted by the successful tenderer shall be retained by MDDA until the Performance Bank Guarantee (PBG) (i.e. 5% of contract value) is submitted.
- vi) If any tenderer withdraws or make any changes in his offer already submitted before the expiry of the above validity period or any extension thereof without the written consent of MDDA, the EMD amount will be forfeited for such act of the tenderer.
- vii) MDDA reserves the right of forfeiture of Earnest Money deposit (EMD) in case of the successful tenderer.
  - a) After opening of Tender, revokes his tender within the validity period or increases his earlier quoted rates.
  - b) Does not commence the work within the period as per LOI/Contract. In case the LOI/Contract is silent in this regard then within 20 days after award of contract.
  - c) EMD shall not carry any interest. EMD shall be interest free.
- 6) MDDA reserves the right to reject any or all the bids or to cancel the Tender, without assigning any reason(s) whatsoever.

# 7) Contents of Technical Bid:

The Technical Bid, clearly labelled as **"TECHNICAL BID"** has to be submitted with the following:

- i) Bidder's covering letter of offer.
- ii) Power of Attorney / Authorization Letter to sign the Tender in original
- iii) Copy of Signed & stamped NIT documents (comprising of total documents-all pages) including documents related to Qualifying criteria.
- iv) Tender Fee in the Sealed Envelope in the form of Demand Draft
- v) Earnest Money Deposit in the Sealed Envelope in the form of Bank Guarantee/FDR from any Scheduled Bank in favour of Secretary MDDA payable at Dehradun

vi) No information relating to financial terms of services should be included in the technical bid. Bids are to be submitted to determine that the bidder has a full comprehension of the tendered work. Where a bidder technical submittal is found non-compliant with the requirement or work, it may be rejected.

#### 8) Contents of Financial Bid

The Financial Bid, clearly labeled as "FINANCIAL BID" should be submitted online only, in the Schedule of Quantities as Annexure-2 (format prescribed). These prices should include all costs associated with the Project an any out of pocket/mobilization expenses, Sales Tax, (except Goods and Service Tax), Purchase Tax, Turnover Tax, Excise Duty, Work Contract Tax or any other tax on materials as applicable shall be paid by the Contractor himself. The Contractor shall quote his rates considering all such taxes. If MDDA is required to pay any such tax, the same shall be deducted from the contractor.

## 9) Cost of Bidding

The Bidder shall bear all costs associated with the preparation and submission of the Bid as well as costs associated for facilitating the evaluation. MDDA shall in no case be responsible or liable for these costs, regardless of the conduct or outcome of the bidding process.

#### 10) Language of Bid

The Bid and all related correspondence and documents relating to the Project shall be in English language only. Supporting documents and printed literature furnished by the Bidder may be in another language provided they are accompanied by an accurate English translation which shall be certified by a qualified translator. Any material that is submitted in a language other than English and which is not accompanied by an accurate English translation will not be considered.

## 11) Currency of Bid

Bid prices shall be quoted in Indian Rupees.

#### 12) Outer cover:

It shall be super scribed with **"TENDER DOCUMENT FOR CONSTRUCTION AND MARKETING OF HIG HOUSING PROJECT OF MUSSOORIE DEHRADUN DEVELOPMENT AUTHORITY NEAR ISBT DEHRADUN".** 

Due date of submission shall be written on all the covers/envelopes of the bid without fail. Bids received after the due date and time shall not be accepted.

**"No request for extension of the due date indicated above shall be entertained".** Telegraphic or Fax or E-Mail offers shall not be accepted under any circumstances.

13) Tender submitted by tenderer shall remain valid for acceptance for a period of 120 (One Hundred Twenty) days from the date set for submission of the tender. The tenderer shall not be entitled within the said period of 120 (One Hundred Twenty) days to revoke or cancel or vary the tender given or any item thereof, without the consent of MDDA. In case tenderer revokes, cancels, or varies his tender in any manner without the consent of MDDA, within this period, his earnest money will be forfeited.

Financial Bid of those Bidders who will be technically qualified for the subject project, on the basis of evaluation of technical bids, will be opened on specified date. The date & time to open the price bid (Part-II) shall be intimated to the technical qualified bidders and in such a case, representative of the bidder shall be allowed to attend. MDDA decision in this regard shall be final & binding. The lowest Financial Bid so opened shall be awarded the work (L-1 Bidder).

Acceptance of MDDA is a prerequisite for consideration of Bidder's offer for this work. Accordingly, Bidder(s) not acceptable to MDDA. shall not be considered and shall be rejected by MDDA and no correspondence and claim etc. from the Bidder in pursuant to the Tender shall be entertained by MDDA under any circumstances whatsoever.

## 3. Brief Description of Bidding Process

- a) In order to identify and select an entity for award of the Project, the MDDA intends to adopt a single stage, open, transparent, competitive bidding process (the "Bidding Process"). The single stage of the Bidding Process is the Proposal stage during which Proposal(s) are being invited from the Bidders.
- b) The evaluation of the Proposals would be carried out on least cost-based selection in two (2) mutually distinct and sequential steps.
- c) The first step would be the Qualification Step which would involve a test for responsiveness based on technical and financial qualification criteria set forth herein.
- d) In the qualification step, the qualification submission comprising information of the Bidders on their Technical capacity and Financial capacity for undertaking the Project would be evaluated and, Based on this step, only those Proposals that meet the technical capacity and financial capacity as set out in this Tender Document for the Project would be qualified and their financial proposals would be opened for identification and selection of the Bidder to whom the Project, subject to the terms of tender, be awarded (the "Selected Bidder").
- e) The bidder quoting the lowest (L1) bid will be called for further discussions to sign a Contract Agreement, who shall be responsible for complete Construction and overall Marketing of HIG Housing Project of Mussoorie Dehradun Development Authority near ISBT Dehradun as per the Specification and guidelines.

## 4. **Procurement of Documents (Tender Fee)**

The Tender Document can be downloaded from e-tendering website <u>www.uktenders.gov.in</u> or MDDA website <u>www.mddaonline.in</u> A demand draft for Rs. 10000/- (Rupees Ten thousand Only), including GST in favour of "Secretary, Mussoorie Dehradun Development Authority" payable at Dehradun, the above-mentioned payment shall be made along with the submission of Proposal and the copy demand draft shall be Annexed with technical proposal.

#### 5. Site visit and verification of information

Bidders are encouraged to submit their respective Proposals after visiting the Project site and ascertaining for themselves the site conditions, traffic, location, surroundings, climate, access to the site, availability of data, Applicable Laws and regulations or any other matter considered relevant by them. Bidders are invited to examine the Project in greater detail, and to carry out, at their cost, such studies as may be required for submitting their respective Proposals.

#### 6. Communications

All communications should be addressed to:

#### Vice Chairman

Mussoorie Dehradun Development Authority (MDDA) Transport Nagar, Saharanpur Road, Dehradun – 248001 Tel: 0135 – 6603100, 0135-6603115, Fax: 0135 – 6603103 Email: *info@mddaonline.in*,

The Official Website of the Authority is: www.mddaonline.in

All communications, should contain the following information, to be marked at the top in **bold letters**:

# **"TENDER DOCUMENT FOR CONSTRUCTION AND MARKETING OF HIG HOUSING PROJECT OF MUSSOORIE DEHRADUN DEVELOPMENT AUTHORITY NEAR ISBT DEHRADUN."**

#### 7. Third Party Inspection

MDDA will appoint Third Party Monitoring Agency for the inspection of quality of material, checking of bills, construction quality, etc. Successful Bidder shall have to cooperate with the Third Party for inspection purpose.

# 8. **Proposal Evaluation**

#### General

- **a.** From the time the bids are opened to the time the contract is awarded, if any contractor wishes to contact MDDA on any matter related to its proposal, it should do so in writing at the address indicated. Any effort by the firm to influence the MDDA in the proposal evaluation, proposal comparison or contract award decisions may result in the rejection of the proposal.
- **b.** Bidders are advised that the selection of Bidder shall be on the basis of an evaluation by the Authority through the Selection Process specified in this Tender. Bidders shall be deemed to have understood and agreed that no explanation or justification for any aspect of the Selection Process will be given and that the Authority's decisions are without any right of appeal whatsoever.
- **c.** The Bidder shall submit its Proposal in the form and manner specified in the Tender. Upon selection, the lowest Bidder shall be required to enter into an agreement with the Authority.
- **d.** The Technical Proposal shall not include any financial information.
- e. The Financial Proposal should be complete, i.e., it should list all costs associated with the Assignment/Project.
- **f.** The financial proposal should be prepared in **Indian Rupees.**
- g. Qualification, the bidder must fulfil the following conditions:-

A proposal shall be rejected at this stage if the Bidders proposal found Non-Responsive.

## **QUALIFICATION CRITERIA:**

The Proprietors/Partnership Firms/Companies who fulfill the following requirements shall be eligible to apply. Joint ventures/Consortium are accepted as per the conditions stipulated in the clauses below:-

- 1. Joint ventures/Consortium are allowed on a condition that Lead partner of the bidding JV/Consortium should be the construction agency and in its name and qualifies for eligibility condition mentioned in Clause 3 as mentioned below.
- 2. No. of JV/Consortium partners shall not more than 3 firms is allowed. (In case the subsidiary firm/parent firm wants to use the technical credentials of the parent firm/subsidiary firm, then Bidder/s can participate by forming Consortium/JV with wholly owned subsidiaries/holding companies/parent company to meet the technical qualification criteria.)

The collated strength of the consortium/JV shall be evaluated for technical qualification.

3. For being considered the Bidder should meet the following minimum **<u>qualification</u>** criteria:

The following requirements to be furnished by the bidders for **<u>qualification</u>** as per the tender document:-

- a) The Bidder/s shall be a Proprietor ship firm /Private Company/firm incorporated in India under the (Indian) Companies Act 1956/2013 or a company incorporated under equivalent law abroad or Limited Liability Partnership (LLP) firm incorporated under the Limited Liability Partnership Act, 2008 or under equivalent law in any other country. The Bidder/s shall be required to submit a true copy of its Incorporation Certificate, along with Proposal.
- **b**) Bidder must have a Valid Goods & Service Tax (GST) Registration, and Pan card (copy must be enclosed).
- c) Lead partner must have RERA Registration.
- **d**) Bidder should have been operational in India from at least 10 years with the proof of incorporation/commencement of business The Bidder/s shall be required to submit Incorporation Certificate/ Registration Certificate commencement proof shall be submitted along with the proposal.
- e) The Bidder/or any of its JV/Consortium partner should not have been blacklisted/debarred/termination of contract except for reasons of convenience of Client by any Government/Public Company/ PSUs/funding agencies, etc. Declaration should be submitted on Stamp Paper.
- f) For Part (A):-

Lead Bidder should have satisfactorily completed the works as mentioned below during the last five years ending previous day of last day of submission of bid.

- One similar completed works of order value not less than Rs 35.50 Crores. OR
- Two similar completed works of order value not less than Rs 22.00 Crores. OR
- Three similar completed works of order value not less than Rs.18.00 Crores.

Similar works (A) means cumulative work involving Building works comprising of construction of buildings/complex/residential town ship including HVAC/Fire Fighting/Electrical jobs and site services works in the projects. Completion certificate needs to be enclosed).

#### For Part (B):- Marketing

- (i) For components of Marketing works related to the project the bidder should either himself meet the eligibility criteria or he will have to associate with the concerned specialist marketing agencies who have experience of Real Estate Marketing and experience of selling minimum 75 dwelling units in last 5 years. Even if, such specialized work shall be executed by the specialized agencies, the work shall be deemed to be executed by the lead bidder for all purposes and the responsibility of works executed etc. shall continue to be that of the lead bidder only.
- **g**) The bidder should provide documentary proof of eligibility requirement as mentioned above. The completion certificates should clearly indicate (a) the date of completion of work (b) completed value of work. The completion certificate should be signed by an officer not below the rank of Executive Engineer or equivalent.

- h) Non-refundable Tender Fee of Rs. 10,000/- (including GST) (Rupees Ten Thousand Only), through Demand Draft in favour of Secretary, Mussoorie Dehradun Development Authority (MDDA) payable at Dehradun.
- i) Earnest Money Deposit (EMD) of **Rs. 70,00,000/- (Rupees Seventy Lakhs only),** through Bank Guarantee/FDR in favour of Secretary, Mussoorie Dehradun Development Authority (MDDA) payable at Dehradun.
- j) The Bidder (in case of single business entity) should have a Positive Networth and minimum average annual turnover of Indian Rs. 13.50 Cr. (Rupees Thirteen Crores Fifty Lakhs only) during the last three (3) financial years (FY: 15-16, 16-17 & 17-18)

Audited balance sheet along with Profit & Loss statement and turnover for last three years (Certificate from CA/Auditor shall be attached) with the proposal.

S.No.	Requirement of Teo	chnical Staff	Minimum Experience (Years)	Designation of Technical Staff
	Minimum Qualification	Numbers		
1.	B.Tech (Civil)	1	10 (Having Experience of one similar nature of work)	Project Manager
2.	B.Tech (Civil)	2	5	Construction Engineer/ Billing Engineer/ Quality Control & Safety Engineer
3.	B.Tech (Electrical)	1	5	Electrical Engineer
4.	Diploma (Civil)	6	5	Supervisor

**k**) Technical Key Personnel list & detailed C.V. as per Form-IV

# NOTE:

Any entity which has been barred by the Central Government, any State Government, a statutory authority or a Public sector undertaking, as the case may be, from participating in any project, and the bar subsists as on the date of Proposal, would not be eligible to submit a Proposal either by itself or through its Associate.

#### 9. Public Opening and Evaluation of Financial Proposals

- A) After the evaluation of Technical Proposal is completed, MDDA shall notify only those bidders whose proposals have been short-listed of the same and the date and time for opening of financial proposals.
- B) The Financial Proposals shall be opened publicly in the presence of the Bidder's representatives who choose to attend. The name of the Bidder, and the proposed amount shall be read aloud and recorded when the Financial Proposals are opened. There will be an Evaluation Committee constituted by MDDA for evaluation of technical and financial proposal.
- C) The Evaluation Committee will determine whether the Financial Proposals are complete, correct any computational errors, etc.
- D) The bidder who has bid the lowest amount (L1) will be invited for discussions/ clarifications for the purpose of signing a Contract Agreement.

## **10.** Conflict of Interest

A Bidder shall not have a conflict of interest that may affect the Selection Process (the "Conflict of Interest"). Any Bidder found to have a Conflict of Interest shall be disqualified. In the event of disqualification, MDDA shall forfeit and appropriate the Bid Security as mutually agreed genuine pre-estimated compensation and damages payable to MDDA for, inter alia, the time, cost and effort of MDDA including consideration of such Bidder's Proposal, without prejudice to any other right or remedy that may be available to MDDA hereunder or otherwise.

MDDA requires that the Bidder provides professional, objective, and impartial advice and at all times hold the Authority's interest's paramount, avoid conflicts with other assignments or its own interests, and act without any consideration for future work. The Bidder/Contractor shall not accept or engage in any assignment that would be in conflict with its prior or current obligations to other clients, or that may place it in a position of not being able to carry out the assignment in the best interests of the Authority.

#### **11.** Number of Proposals

No Bidder shall submit more than one Proposal for the Project. A Bidder applying individually or as an Associate shall not be entitled to submit another proposal either individually or as a member of any consortium, as the case may be.

#### 12. Cost of Proposal

The Bidders shall be responsible for all of the costs associated with the preparation of their Proposals and their participation in the Selection Process including visits to the Authority, Project site etc. MDDA will not be responsible or in any way liable for such costs, regardless of the conduct or outcome of the Selection Process.

#### 13. Acknowledgement by Bidder

It shall be deemed that by submitting the Proposal, the Bidder has:

- a) made a complete and careful examination of the Tender;
- b) received all relevant information requested from the Authority;
- c) acknowledged and accepted the risk of inadequacy, error or mistake in the information provided in the tender or furnished by or on behalf of the Authority or relating to any of the matters referred in this tender;
- d) Satisfied itself about all matters, things and information, including matters referred herein above, necessary and required for submitting an informed Proposal and performance of all of its obligations thereunder;
- e) acknowledged that it does not have a Conflict of Interest; and
- f) The Authority shall not be liable for any omission, mistake or error on the part of the Bidder in respect of any of the above or on account of any matter or thing arising out of or concerning or relating to tender or the Selection Process, including any error or mistake therein or in any information or data given by the Authority.

#### 14. Clarifications

To facilitate evaluation of Proposals, the Authority may, at its sole discretion, seek clarifications from any Bidder regarding its Proposal. Such clarification(s) shall be provided within the time specified by the Authority for this purpose. Any request for clarification(s) and all clarification(s) in response thereto shall be in writing.

If a Bidder does not provide clarifications sought under above within the specified time, its Proposal shall be liable to be rejected. In case the Proposal is not rejected, the Authority may proceed to evaluate the Proposal by construing the particulars requiring clarification to the best of its understanding, and the Bidder shall be barred from subsequently questioning such interpretation of the Authority.

## **15.** Amendment in tender

At any time before the submission of Proposals, MDDA may amend the tender by issuing an addendum in writing or by standard electronic means. The addendum shall be uploaded on the website, <u>www.uktenders.gov.in</u> and <u>www.mddaonine.in</u>, and will be binding on all of them. Bidder shall update themselves by visiting the website regularly, for not being updated by the bidders themselves, MDDA bears no responsibility. Bidders shall acknowledge receipt of all amendments. To give Bidders reasonable time in which to take an amendment into account in their Proposals MDDA may, if the amendment is substantial, extend the deadline for the submission of Proposals.

#### **16.** Proposal Due Date

Proposal should be submitted on or before date and time as mentioned in schedule of selection process at e-tendering website i.e. <u>www.uktenders.gov.in</u> and in the manner and form as detailed in this tender document. The Authority may, in its sole discretion, extend the Proposal Due Date by issuing an Addendum in accordance with uniformly for all Bidders.

## 17. Late Proposals

Proposals received after the specified time on Proposal Due Date shall not be eligible for consideration and shall be summarily rejected.

#### **18. Bid Security (EMD)**

The Bidder shall furnish as part of its Proposal, a Bid Security of **Rs. 70,00,000/- (Rupees Seventy Lakhs only),** in the form of a Bank Guarantee/FDR issued by one of the Nationalized/Scheduled Banks in India in favour of the Secretary, Mussoorie Dehradun Development Authority payable at Dehradun (the "Bid Security"), The Selected Bidder's Bid Security shall be returned, upon the Bidder submitting the Performance Security at the time of signing the Agreement which shall be 10% of the Contract Value.

Any Bid not accompanied by the Bid Security shall be rejected by the Authority as non-responsive.

The Authority shall not be liable to pay any interest on the Bid Security and the same shall be interest free.

The Bidder, by submitting its Proposal pursuant to this Tender, shall be deemed to have acknowledged that without prejudice to the Authority's any other right or remedy hereunder or in law or otherwise, the Bid Security shall be forfeited and appropriated by the Authority as the mutually agreed pre-estimated compensation and damage payable to the Authority for, inter alia, the time, cost and effort of the Authority in regard to the TENDER including the consideration and evaluation of the Proposal under the following conditions:

- a) If a Bidder withdraws its Proposal during the period of its validity as specified in this tender document and as extended by the Bidder from time to time;
- b) In the case of a Selected Bidder, if the Bidder fails to sign the Agreement or commence the assignment respectively; or
- c) If the Bidder is found to have a Conflict of Interest.

#### 19. Submission, Receipt, and Opening of Proposal

21.1 The Bidder shall submit their Technical and Financial Proposals Online only. The original proposal, both Technical and Financial Proposals shall contain no interlineations or overwriting, except as necessary to correct errors made by the

Bidders themselves. The person who signed the proposal must initial such corrections. Submission letters for both Technical and Financial Proposals should respectively be in the format as mentioned in this tender.

- 21.2 An authorized representative of the bidder shall initial all pages of the original Technical and Financial Proposals. The authorization shall be in the form of a written power of attorney accompanying the Proposal or in any other form demonstrating that the representative has been dully authorized to sign. The signed Technical and Financial Proposals shall be marked "ORIGINAL". **The financial proposal shall be submitted online only and shall be signed digitally.**
- 21.3 The envelopes containing the EMD, Bid Document Fee, Original Power of Attorney etc. shall be placed into an outer envelope and sealed. This outer envelope shall bear the submission address, reference number be clearly marked "DO NOT OPEN, BEFORE 05:00 p.m. on 08/11/2019". MDDA shall not be responsible for misplacement, losing or premature opening if the envelope is not sealed and/or marked as stipulated. This circumstance may be case for Proposal rejection. The Financial Proposal shall be submitted online only and shall be sealed digitally. If the Financial Proposal is not submitted online digitally sealed, this will constitute grounds for declaring the Proposal non-responsive.
- 21.4 **Online Submission:** Signed "Technical Proposal" shall be uploaded in the prescribed format and supporting documents along with scanned copy of EMD, Bid Document Fee and Power of Attorney as mentioned. Similarly, the original signed 'Financial Proposal' shall be placed in a digitally sealed envelope clearly marked 'Financial Proposal' and shall contain the financial proposal in the prescribed format.
- 21.5 The completed Proposal must be submitted online on or before the specified time. Proposals submitted by fax, telex, telegram or e-mail shall not be entertained.

## 20. Confidentiality

Information relating to the examination, clarification, evaluation, and recommendation for the selection of Bidders shall not be disclosed to any person who is not officially concerned with the process or is not a retained professional adviser advising the Authority in relation to matters arising out of or concerning the Selection Process. The Authority will treat all information, submitted as part of the Proposal, in confidence and will require all those who have access to such material to treat the same in confidence. The Authority may not divulge any such information unless it is directed to do so by any statutory entity that has the power under law to require its disclosure or is to enforce or assert any right or privilege of the statutory entity and/or the Authority.

#### 21. Award of work

After selection, a Letter of Award (the "LOA") shall be issued, by the Authority to the Selected Bidder and the Selected Bidder shall, on receipt of the LOA, sign and send the Letter of Acceptance of the LOA in acknowledgement thereof. In the event the Letter of Acceptance of the LOA duly signed by the Selected Bidder is not received within a week, the Authority may, unless it consents to extension of time for submission thereof, forfeit

the Bid Security of such Applicant as mutually agreed genuine pre-estimated loss and damage suffered by the Authority on account of failure of the Selected Bidder to acknowledge the Letter of Award, and the next Bidder may be considered.

#### 22. Execution of Agreement

After acknowledgement of the LOA as aforesaid by the Selected Bidder, it shall execute the Agreement with MDDA.

#### 23. Pre-Bid Meeting

Pre-Bid Meeting of the Bidders shall be conducted in accordance to the Schedule of the Selection Process at the designated date, time and place.

#### 24. Miscellaneous

- 26.1. The Selection Process shall be governed by, and construed in accordance with, the laws of India and the Courts at Dehradun shall have exclusive jurisdiction over all disputes arising under, pursuant to and/ or in connection with the Selection Process.
- 26.2. The Authority, in its sole discretion and without incurring any obligation or liability, reserves the right, at any time, to;
  - (a) suspend and/ or cancel the Selection Process and/ or amend and/ or supplement the Selection Process or modify the dates or other terms and conditions relating thereto;
  - (b) consult with any Bidder in order to receive clarification or further information;
  - (c) retain any information and/ or evidence submitted to the Authority by, on behalf of, and/ or in relation to any Bidder; and/ or
- 26.3. Independently verify, disqualify, reject and/ or accept any and all submissions or other information and/ or evidence submitted by or on behalf of any Bidder.
- 26.4. It shall be deemed that by submitting the Proposal, the Bidder agrees and releases the Authority, its employees, agents and advisers, irrevocably, unconditionally, fully and finally from any and all liability for claims, losses, damages, costs, expenses or liabilities in any way related to or arising from the exercise of any rights and/or performance of any obligations hereunder, pursuant hereto and/or in connection herewith and waives any and all rights and/or claims it may have in this respect, whether actual or contingent, whether present or future.
- 26.5. The Authority reserves the right to make inquiries with any of the clients listed by the Bidders in their previous experience record.

# <u>SECTION-II</u> Scope of Work

# CONDITIONS OF PARTICULAR APPLICATION

 The instructions to the Bidders for submission of Tender are enclosed as above. This Tender is being invited by Mussoorie Dehradun Development Authority for executing a part of the work for the subject job as per enclosed Schedule of Quantities (SOQ) as Annexure-2 for project Construction of HIG Housing Project of Mussoorie Dehradun Development Authority near ISBT Dehradun.

## **SCOPE OF WORK**

Scope of work shall include "Construction and overall Marketing of HIG Housing Project of Mussoorie Dehradun Development Authority near ISBT Dehradun" as per the Drawings, Specification and details set forth under this Tender document. And to obtain all approvals from statutory authorities for start to complete the work of "Construction and Marketing of HIG Housing Project of Mussoorie Dehradun Development Authority near ISBT Dehradun" including furnishing, internal storage water supply, sanitary installations and internal electrical services etc.

The scope of work shall include obtaining necessary approvals including statutory approvals for any part of work which are required for the necessary completion of the project." The bidder shall be responsible right through the entire duration of the Project for execution of all works till commissioning and handing over of project complete with all respects ready to move and shall remove all defects, if any, developed during Defects Liability Period (DLP).

The data given by the MDDA is only for information and guidance of the bidder who shall verify these data and shall be responsible for the overall execution of the project. MDDA shall not be responsible for the technicality/accuracy of the attachments. MDDA reserves the right to modify the scope of work as per the requirement of user department at any stage if necessary, without assigning any reason whatsoever. The Bidder shall visit the site also to examine whatever information he may require.

The responsibility of the Bidder shall include carrying out all the activities for the completion of the Project, which generally shall include the following, and any additional activities incidental to these:-

MDDA may in their absolute discretion issue further drawings and/or written instructions, details, directions and explanations, which are, hereafter collectively referred to as "MDDA's instructions" in regard to:

- i) The variation or modification of the quality or quantity of works or the addition or omission or substitution of any work.
- ii) Any discrepancy in the drawings or between the Schedule of Quantities and/or drawings

and/or specification.

- iii) The removal from the site of any defective material brought thereon by the Contractor and the substitution of any other material thereof.
- iv) The demolition removal and/or re-execution of any work executed by the Subcontractor/s.
- v) The dismissal from the work of any persons employed there upon.
- vi) The opening for inspection of any work covered up.
- vii) The rectification and making good of any defects under clauses herein after mentioned and those arising during the maintenance period (retention period) /defect liability period.
- viii) Royalty at the prevalent rates and all other incidental expenditure, if any shall have to be paid by the Contractor on all the materials like boulders, stone metals, earth, sand, bajri etc. collected by him for the execution of the work directly to the concerned revenue Authority of the Sate or Central Government. His rates are deemed to include all such expenditure and nothing extra shall be paid.
- ix) Overall marketing of the Project in consultation and approval of MDDA.

## PERFORMANCE SECURITY

a) The Successful Bidder shall within Fifteen (15) days of the acceptance of the LOA, execute a Performance Bank Guarantee as per contract, from a scheduled Commercial Bank, for an amount equivalent to the 5% of the accepted Contract Value, which shall be kept valid for the entire period of work and shall be refunded to the contractor soon after the completion of work and issuance of the completion certificate. The EMD of the successful Bidder shall be retained by MDDA until the Performance Bank Guarantee (PBG) is submitted.

The Performance Bank Guarantee of the successful Bidder will be invoked and forfeited if he fails to comply with any of the conditions of contract.

b) The Contractor shall from time to time at the request of the MDDA suitably extend the validity of Performance Bank Guarantee as may from time to time be required by MDDA.

# <u>SECTION–III</u> <u>Technical Specifications</u>

- 1. The Work will be executed strictly in accordance with the CPWD specification corrected up to date at the time of tenders, unless specified to contrary.
- 2. Measurement of work will be done as per CPWD specification.
- 3. The Contractor shall not be entitled to any payments on account of work done till he signs the agreement and the same is accepted by the competent authority.
- 4. Actual quantities of completed and accepted work shall only be paid.
- 5. No claim shall be entertained on account of increase in price of material and wages of labour due to any cause whatsoever.
- 6. The Engineer-In-Charge reserves the right to take away any item of work or any part thereof at any time during the currency of work and re-allot to any other agency with due notice to the contractor without liability of any kind or payment of any compensation.
- 7. The contractor will be responsible for any and all losses of material damages done to unfinished works as result of floods and any other act of God. MDDA will not be responsible for any compensation as a result of such damages or loss to the contractor and the contractor shall be liable to set right such damages at his own cost the satisfaction of the Engineer-In-Charge.
- 8. Nothing extra will be paid to the contractor for any lead or lift unless otherwise specified for any material required directly or indirectly.
- 9. Nothing extra will be paid to the contractor for diverting water in the channels or streams if it becomes necessary for the execution and completion of the work.
- 10. Amount of the work can be increased or decreased due to any item omitted and substituted in accordance with the requirement of the project.
- 11. The Contractor shall be responsible for providing to the entire satisfaction of the Project Manager at his own expenses for the following amenities for all the labour employed by him:
  - i) Suitable temporary hutting accommodation.
  - ii) Trench latrines, bathing enclosures, platforms separately for men and women and their regular cleanliness.
  - iii) Clean drinking water.

In event of his failure, the cost thereof shall be recovered from the contractor. Any dispute regarding above points shall be settled by the Engineer-In-Charge and his decision shall be final. Shall also follow all the Labour Laws.

- 12. For safe custody of materials and watch and ward thereof and proper double lock arrangement, the contractor shall be bound to follow the instruction of the Engineer-In-Charge.
- 13. The size of reinforced cement concrete and other structural member shall be measured and paid as per size provided in the structural drawings.
- 14. Error or omission, if any in the nomenclature rate or unit of the items or work shall be corrected as per CPWD schedule of Rates 2016.

## Materials and testing of materials for quality:

- 15. The materials shall be subject to inspection and approval of the Engineer-In-Charge/Independent Engineer/Third Party. The contractor shall be required to get necessary tests carried out of materials / work from an approved laboratory.
- 16. Any building material will get tested at the cost of the contractor. The contractor will set up a site laboratory for testing of Coarse Aggregate, Fine Aggregate & Compressive Strength of Concrete, etc.

# <u>SECTION-IV</u> <u>Schedule of Quantities</u>

As per Annexure- 2

# <u>SECTION- V</u> <u>Technical Proposal - Forms</u>

## FORM-I

#### Letter of Proposal

#### (On Bidder's letter head)

(Date and Reference)

To,

.....

.....

.....

# Sub: SELECTION OF CONSTRUCTION AND MARKETING OF HIG HOUSING PROJECT OF MUSSOORIE DEHRADUN DEVELOPMENT AUTHORITY NEAR ISBT DEHRADUN.

Dear Sir,

With reference to your Tender Document dated ....., I/We, having examined all relevant documents and understood their contents, hereby submit our Proposal for Selection of Construction and Marketing of HIG Housing Project of Mussoorie Dehradun Development Authority near ISBT Dehradun.

The proposal is unconditional and unqualified.

- 1. I/We acknowledge that the MDDA will be relying on the information provided in the Proposal and the documents accompanying the Proposal for selection of the Bidder, and we certify that all information provided in the Proposal and in the Appendices is true and correct, nothing has been omitted which renders such information misleading; and all documents accompanying such Proposal are true copies of their respective originals.
- 2. This statement is made for the express purpose of appointment as the Bidder for the aforesaid Project.
- 3. I/We shall make available to the MDDA any additional information it may deem necessary or require for supplementing or authenticating the Proposal.
- 4. I/We acknowledge the right of MDDA to reject our application without assigning any reason or otherwise and hereby waive our right to challenge the same on any account whatsoever.
- 5. I/We certify that in the last five years, we or any of our Associates have neither failed to perform on any contract, as evidenced by imposition of a penalty by an arbitral or judicial authority or a judicial pronouncement or arbitration award against the Applicant, nor been expelled from any project or contract by any public authority nor have had any contract terminated by any public authority for breach on our part.

- 6. I/We certify that in the last five years, we or any of our Associates have not been blacklisted/ debarred/ termination of contract except for reasons of convenience of Client by any government/ government board/ corporation/ company/ PSU Company/ statutory body/ non-government in last 5 years.
- 7. I/We declare that:
  - (a)I/We have examined and have no reservations to the Tender Documents, including any Addendum issued by the Employer;
  - (b) I/We do not have any conflict of interest in accordance to the Tender Document;
- 8. I/We understand that you may cancel the Selection Process at any time and that you are neither bound to accept any Proposal that you may receive nor to select the Bidder, without incurring any liability to the Applicants in accordance to the Tender document.
- 9. I/We declare that we/any member of Consortium, are is not a member of any other Consortium applying for Selection as a Bidder.
- 10. I/We certify that in regard to matters other than security and integrity of the country, we or any of our Associates have not been convicted by a Court of Law or indicted or adverse orders passed by a regulatory authority which would cast a doubt on our ability to undertake the Project or which relates to a grave offence that outrages the moral sense of the community.
- 11. I/We further certify that in regard to matters relating to security and integrity of the country, we have not been charge-sheeted by any agency of the Government or convicted by a Court of Law for any offence committed by us or by any of our Associates.
- 12. I/We further certify that no investigation by a regulatory authority is pending either against us or against our associates or directors /managers/employees or against to be engaged team members.
- 13. I/We hereby irrevocably waive any right or remedy which we may have at any stage at law or howsoever otherwise arising to challenge or question any decision taken by the Authority [and/ or the Government of India] in connection with the selection of Bidder or in connection with the Selection Process itself in respect of the above-mentioned Project.
- 14. I/We agree and understand that the proposal is subject to the provisions of the Tender document. In no case, shall I/we have any claim or right of whatsoever nature if work for the Project is not awarded to me/us or our proposal is not opened or rejected.
- 15. I/We agree to keep this offer valid for 120 (One Hundred Twenty Days) days from the PDD specified in the Tender.
- 16. A Power of Attorney in favour of the authorised signatory to sign and submit this Proposal and documents is attached herewith in prescribed format.
- 17. In the event of my/our firm being selected as the Bidder, I/we agree to enter into an Agreement.
- 18. I/We have studied Tender Document and all other documents carefully. We understand that except to the extent as expressly set forth, we shall have no claim, right or title arising out of any documents or information provided to us by the MDDA or in respect of any matter arising out of or concerning or relating to the Selection Process including the award of Work.

- 19. The Financial Proposal is being submitted online along with the Technical Proposal separately digitally sealed. This Technical Proposal read with the Financial Proposal shall constitute the Application which shall be binding on us.
- 20. I/We agree and undertake to abide by all the terms and conditions of the Tender Document.

In witness thereof, I/we submit this Proposal under and in accordance with the terms of the Tender Document.

Yours faithfully,

(Signature, name and designation of the authorised signatory)

(Name and seal of the Bidder/ Lead Member)

# FORM-II

#### **Firm's References**

Using the format below, provide information on each reference assignment for which your firm, either individually as a corporate entity or as one of the major companies within an association, was legally contracted.

# (i) Relevant services carried out in the last five years that best illustrate qualifications

Firm's Name:

Assignment Name:		Country:			
Location within Country:		Key professional staff provided by your Firm/ (profiles):			
Name of Client:		No. of Staff:			
Address:		No. of Staff-months:			
		Duration of assignment:			
Start Date	Completion Date	Approx. Value of Services			
(Month/Year):	(Month/Year):	(in Rs.):			
Name of Associated Bidd	ers, if any:	No. of months of key professional staff			
		provided by Associated Bidders:			
Name of Senior Staff (Properformed:	oject Director/Coordina	ator, Team Leader) involved and functions			
Narrative Description of I	Project:				
Description of Actual Ser	vices Provided by You	ır Staff:			

# (ii) Particulars and Experience of firm(s)

Relevant services carried out in the similar to the assignment both Part (A) and Part (B) as described in Eligibility conditions, considered to best illustrate experience and capabilities of the firm format given below:

S. No.	Field of specialisation	Assignment Name	Name of Client	Project Cost in Rs.	Stage of Project execution on ground (initiated/ in progress/ completed)	Any other relevant information
1	2	3	4	5	6	7
	Part (A) /					
	Part (B)					
1						
2						
3						
4						
5						

# FORM-III

# Team Composition & Task Assignments

# Key Professionals

Sl. No.	Name	Proposed Position	Total experience (years)	Relevant experience in years
1.				
2. 3.				
4. 				

## FORM-IV

## Format of Curriculum Vitae (CV) for Proposed Key Professionals

Proposed Position:		
Name of Firm:		
Name of Expert:		
Profession:		
Date of Birth:		
Years with Firm/Entity:	Nationality:	
Membership in Professional Societies:		
Detailed Tasks Assigned:		
Key Oualifications:		

[Give an outline of expert member's experience and training most pertinent to tasks on assignment. Describe degree of responsibility held by expert member on relevant previous assignments and give dates and locations. Use about half a page.]

Education:

[Summarize college/university and other specialized education of expert member, giving names of schools, dates attended, and degrees obtained. Use about one quarter of a page.]

Employment Record: \_\_\_\_\_

[Starting with present position, list in reverse order every employment held. List all positions held by expert member since graduation, giving dates, names of employing organizations, titles of positions held, and locations of assignments. For experience in last ten years, also give types of activities performed and client references, where appropriate. Use about two pages.]

Languages: \_\_\_\_\_

[For each language indicate proficiency: excellent, good, fair, or poor; in speaking, reading, and writing]

#### **Certification:**

I, the undersigned, certify that to the best of my knowledge and belief, these data correctly describe me, my qualifications, and my experience. If awarded the Contract, I undertake to work with this Firm only on this assignment.

[Signature of Key Professional]	[Signature of authorized representative of Firm]
Date: Day/Month/Year	
Full name of Vay Professional	
Full name of Key Professional:	

\_\_\_\_\_

Full name of Authorized Representative:

\_\_\_\_\_

# FORM-V

# Activity\* (Work) Schedule

Sl. Item of Activity   Weeks from start of the assignment													
No.	(Work)	(in	(in the form of a Bar Chart)										
		1	2	3	4	5	6	7	8	9	10		Number of Weeks
		1	2	3	4	5	6	7	8	9	10		Number of months
1.													
													Subtotal (1)
2.													
													Subtotal (2)
3.													
													Subtotal (3)
4.													
													Subtotal (4)

#### FORM-VII

# Format for Annual Turnover as per the Audited Accounts Towards the qualifying experience

(Equivalent in Rs. Crores)

Bidder*	(Name of Bidder)						
FY	2015-16	2016-17	2017-18	Total	Average		
Annual							
Turnover							
Certificate from	m the Statutory A	uditor/Charter	ed Accountant				
the respective y Name of the au	ve years. e audit firm/CA:						
Seal of the audi	al of the audit firm/CA:						
Date:							
(Signature, name, registration no. and designation of the authorised signatory)							

- # The Bidder should provide the Financial Capability based on its own financial statements. Financial Capability of the Bidder's parent company or its subsidiary or any associate company will not be considered for computation of the Financial Capability of the Bidder.
- \* Bidder should fill in details as per the row titled Annual turnover and net profit in the row below. In case the Bidder is a Consortium, for the purpose of evaluation on financial parameters, financial parameters of all the members shall be furnished in separate sheet for consideration.

# **POWER OF ATTORNEY**

Know all men by these presents, We, ..... (name of Firm and address of the constitute, nominate, do registered office) hereby appoint and authorize Mr./ Ms...... Son/Daughter/Wife and presently residing at....., who is presently employed with/ retained by us and holding the position of ...... as our true and lawful attorney (hereinafter referred to as the "Authorized Representative") 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 Proposal for and selection as ..... (.....) including but not limited to signing and submission of all applications, proposals and other documents and writings, participating in pre-bid and other conferences and providing information/ responses to the MDDA, representing us in all matters before the Authority, signing and execution of all contracts and undertakings consequent to acceptance of our proposal and generally dealing with MDDA in all matters in connection with or relating to or arising out of our Proposal for the said Project and/or upon award thereof to us till the entering into of the Agreement with MDDA.

AND, we do hereby agree to ratify and confirm all acts, deeds and things lawfully done or caused to be done by our said Authorized Representative 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 Authorized Representative 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)

***	· · .
<b>\</b> \	itnesses:
• •	nucesce.

1.

2.

Notarised

Accepted

.....

(Signature, name, designation and address of the Attorney)

## 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 other documents such as a 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, Bidders may submit a General Power of Attorney notarized in India. However, at the time of negotiation it is mandatory to submit the Power of Attorney executed and issued overseas, 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 Apostille certificate.

# <u>SECTION- VI</u> <u>Financial Proposal – Forms</u>

#### FORM FIN-I

[Location, Date]

To,

[Name & Address of Nodal Officer]

# Sub: SELECTION OF CONSTRUCTION AND MARKETING OF HIG HOUSING PROJECT OF MUSSOORIE DEHRADUN DEVELOPMENT AUTHORITY NEAR ISBT DEHRADUN.

Sir,

We, the undersigned, offer to provide the services for the above assignment in accordance with your Tender vide advertisement dated [*Date*] for Selection of Construction and Marketing of HIG Housing Project of Mussoorie Dehradun Development Authority near ISBT Dehradun.

2. We are hereby submitting our Financial Proposal for .....

3. We undertake that, in competing for (and, if the award is made to us, in executing) the above contract, we will strictly follow the laws against fraud and corruption in force in India namely "Prevention of Corruption Act 1988" and shall strictly follow all the Labour Laws and all the applicable Laws.

4. We have gone through the Tender documents and understand the terms and conditions. We understand that you are not bound to accept any proposal you receive.

Authorized Signature: \_\_\_\_\_

Name and Title of Signatory:

Name of the Firm:

Address: \_\_\_\_\_

#### FORM FIN-II

#### **Format for Financial Proposal / Price Bid**

#### Name of the Bidder:

#### PRICE SCHEDULE

(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)

Number#	Text#	Number#	Text#	Number#	Text#
Sl. No.	<b>Item Description</b>	Quantity	Units	<b>Total Amount</b>	Total
				without Taxes	Amount in
					Words
1	2	3	4	6	7
1.	<b>"SELECTION OF</b>	1	Nos		
	CONSTRUCTION AND				
	MARKETING OF HIG				
	HOUSING PROJECT OF				
	MUSSOORIE DEHRADUN				
	DEVELOPMENT				
	AUTHORITY NEAR ISBT				
	DEHRADUN."				
Total	in Figures				
Quote	d Rate in words				

# ANNEXURE- 1

# <u>Site Plan</u>



# **DRAFT MEMORANDUM OF UNDERSTANDING**

#### Between

Mussoorie Dehradun Development Authority (MDDA), having its office at Transport Nagar, Saharanpur Road Dehradun-248001, through its Secretary, hereinafter referred to as 'FIRST PARTY' of the First Part, which expression shall, unless repugnant to the context thereof, shall include its successor in office, administrators in interest, assigns etc. of the one part.

#### AND

......having its office:- ...., Dehradun, through its ....., hereinafter referred to as 'SECOND PARTY' of the Second Part, which expression, shall, unless repugnant to the context thereof, include the successors in office, administrators in interest, assigns, executors etc. of the other part.

Whereas on the proposal of the First Party, the Second Party has agreed to carry out the construction and marketing of HIG housing at ISBT in Dehradun (hereinafter referred to as 'Project') as per the clauses laid down here below, having estimated cost of Rs. ..... Lakh including other Charges but excluding GST as applicable which shall be paid by the First Party.

#### 1. TERMS AND CONDITIONS

- 1.1 It is agreed that the estimated cost of Project is Rs. ...... Lakh as indicated above based on the financial bid of the second party.
- 1.2 The First Party shall co-ordinate between various department (viz. Nagar Nigam, Mining, PWD, Irrigation Department, Jal Sansthan/Jal Nigam, BSNL, Peyjal Nigam, Police etc.) wherever/whenever required for smooth execution of Project with firm concept to commissioning.
- 1.3 The First Party shall provide space or demark the Site/ stretches for Construction of the housing units including external development as outlined in the DPR, wherever available.
- 1.4 For the purpose of Clause 3, the progress of Project shall be reviewed at least every month by the Inspection Committee formed by the Vice Chairman, MDDA. The minutes of such review shall be duly recorded by the Inspection Committee for records and for further reference.

- 1.5 The Second Party shall be wholly responsible for the safe keeping, security, protection of assets created etc. at the site and any loss or damage to the assets created.
- 1.6 The Second Party shall provide monthly physical and financial progress report of the project duly certified by its authorized officer.
- 1.7 The Second Party shall be responsible for ensuring the quality standards of all the material & works of the project. Accordingly in order to ensure quality standards, the Second Party shall ensure inspection and testing from advisors/ professional of repute and the reports of such inspections shall be submitted to the First Party. However, this being the responsibility of the Second Party, the First Party shall have a right to get quality standards checked from any of its officer (s) or any professional (s) or agency having experience in the field, and the Second Party shall cooperate and provide relevant information to the said officer (s) or professional (s).
- 1.8 The Second Party shall ensure that all materials and workmanship shall be of good quality conforming generally to accepted standards of Indian standards Specification and Codes.
- 1.9 The Second Party shall be wholly responsible for the safety and security of Road users, vehicles etc during the project period and shall in no way shift its such liability / burden to the First Party.

# 2. <u>SCOPE OF WORK</u>

- 2.1 The Second Party has to do construction of the group housing project at ISBT in strict adherence to the DPR provisioned to the second party by the first party. And in case of additional work in addition to the work not contained in the DPR, as entrusted by the First Party to the Second Party as per requirement of work, the same shall be measured extra and payment thereof shall be made accordingly by the First Party to the Second Party.
- 2.2 The second party shall be given marketing rights to the dwelling units on behalf of the first party to the interested buyers.
- 2.3 The second party shall prepare the creatives contents, media and co-ordinate with channel partners for promotion of the project.
- 2.4 The expense for outdoor publications viz. print media, social media, tvc or any other promotional activities viz. events, BSMs shall be borne by the Second party.
- 2.5 The second party shall be paid upto 3% (Three percent) of the sale value consideration of dwelling units on successful sale (on receiving Final Payment).
- 2.6 The second party shall market the project in a manner such that, minimum average 30 units are sold in every 5 months. The payment shall be calculated on minimum sale of 5 Dwelling Units.
- 2.7 In the event that the second party fails to maintain the average selling frequency of 30 dwelling units in 5 months, the second party shall be liable to a penalty of 0.5% on the sale commission to be received on the units sold.

# 3. TIME FRAME AND PAYMENT SCHEDULE

3.1 The Second Party shall complete the project within 08 months as per the Time Schedule and phasing of the progress/completion of the project, except in the cases of force majeure, as under :-

S.No.	Item	No. of Months	Payment %
1.	On Date of Star of Work		10% (against Bank Guarantee)
2.	Percentage Achievement of Physical Progress upto 25%	02 Months	25%
3.	Percentage Achievement of Physical Progress upto 50%	04 Months	25%
4.	Percentage Achievement of Physical Progress upto 75%	06 Months	25%
5.	Percentage Achievement of Physical Progress upto 100%	08 Months	15%

- 3.1.(a) The first Party will ensure adequate fund flow to the construction agency commensurate with physical progress as per schedule as indicated above and financial progress of previously released funds/last disbursement.
- 3.2 The Second Party shall strictly adhere to the above Work Schedule and in case of delay in the completion of work the punitive deduction @ 0.1 Percent of the estimated cost every day shall be levied to the maximum period of one month and thereafter the deduction of 0.25% percent of the estimated cost per day shall be levied to the maximum period of another one month and in case still the Second Party does not comply with the work schedule, the First Party will be at liberty to proceed to invoke Termination Clause of this MOU.

# 4. MODIFICATION

No modification, variation or amendment or the contract shall have no force until and unless such modification, variation or amendment is in writing and an addendum to this MOU to that effect is executed between the parties.

# 5. THIRD PARTY INSPECTION

MDDA will appoint Third Party Monitoring Agency for the inspection of quality of material, checking of bills, construction quality, etc. Successful Bidder shall have to cooperate with the Third Party for inspection purpose.

# 6. INDEMNIFICATION

- 6.1 The Second Party shall keep the First Party totally indemnified and harmless against all claims, dues, payments, fines, penalties, compensation, liabilities and other losses etc. which may incur on account of non-compliance or violation of any statutory provisions.
- 6.2 The Second Party shall keep the First Party harmless against all dues relating to EPF, ESI, workmen compensation, claim including other statutory levies and taxes relating to workers, labourers, supervisors, engineers etc. etc. and the Second Party shall be liable and responsible for all such claims. For all purpose and intent the workers, labourers, supervisors, engineers etc. engaged by the Second Party for carrying out the project, shall be deemed to be the workers/ employees of the Second Party and the Second Party will be the Principal Employer in this respect.

# 7. <u>DEFECTS AND DEFICIENCIES</u>

- 7.1 The Second Party shall be liable and responsible for any defect in the construction of project of whatsoever nature intimated by the First Party to the Second Party even after handing over the project by the Second Party for a period of further three years and shall rectify the same to the satisfaction of the First Party within a period of 15 days from the date of intimation and in case of failure to do so, the First Party shall be at liberty to claim damages along with interest from Second Party through Dispute Resolution System and thereafter through Arbitration as laid down in this MOU.
- 7.2 Though the MOU is valid for 08 months only from the date of its execution, however, the parties hereby agree that for the purpose of defects/ deficiency in the project work, this MOU shall remain in force for a further period of three years from the date of handing over the project by the Second Party to the First Party.

# 8. FORCE MAJEURE

Both the parties shall ensure due compliance with the terms of this MOU. However, no party shall be liable for any claim or any loss or damage what so ever arising out of failure to carry out the terms of the MOU to the extent that such a failure is due to force majeure events, such as war, rebellion, mutiny, civil, commotion, riot, accident, Act of God and any other reason beyond the control of concerned party. But any party

claiming the benefit on this account shall reasonably satisfy the other party of the existence of such an event and give written notice within a reasonable time to the other party to this effect. The services shall be started as soon as practicable by the parties concerned after such eventuality has come to and or ceased to exist.

### 9. <u>DELAY AND NEGLIGENCY</u>

That any negligence, delay or deficiency in the progress of work, or lapse on the part of Second Party as intimated by the First Party to the Second Party, the same shall be rectified by the Second Party to the satisfaction of First Party within a period of 15 days and in case of failure by the Second Party to rectify the same within the said period/project or repetition of the said deficiency or delay, the First Party shall have the right to take back the entire project from the Second Party by terminating this MOU as per Termination Clause.

### 10. TERMINATION OF MOU

- 10.1. If the progress of the project does not match with the targets as set out in Clause 3 or the Second Party fails to rectify the defects as intimated by the First Party to the Second Party, within a period of 15 days or repetition of the said deficiency in the execution of work, the First Party shall be at liberty to terminate this MOU by giving fifteen days' Notice to the Second Party to show cause as to why the captioned MOU be not terminated and in case of failure to give reasonable and satisfactory reply, the First Party shall by a reasonable and speaking order terminate the MOU.
- 10.2 In case of termination of this MOU, the project shall stand withdrawn from the Second Party and the First Party shall be at liberty to allot the same to some other agency and in such case the Second Party shall peacefully handover the project to the said Agency as may be directed by the First Party immediately along with all the constructed portion and the building material on as is where is basis, tools and plants, designs, drawings and all other ,material / records etc. relating to the project so that the construction work / implementation of the project does not get adversely affected. In such event the Second Party shall refund the amount in proportionate to the incomplete work, as estimated by the First Party. No claim arising out of this exercise shall neither be raised by the Second Party nor shall be maintainable before any Forum of whatsoever nature.

#### 11. DISPUTE RESOLUTION

#### Amicable Settlement

In case of any dispute, the parties shall use their best efforts to settle amicably all disputes arising out of or in connection with this MOU or the interpretation there of:

#### **Dispute Settlement through Arbitration**

In case the dispute having not been resolved amicably, the same shall be referred to the Sole Arbitrator appointed by the parties mutually. Both the parties agree that for the purpose of Arbitration the provisions of Arbitration and Conciliation Act, 1996 shall be applicable. Both the parties further agree that place of Arbitration shall be at Dehradun and the court of District Judge, Dehradun only shall have jurisdiction to adjudicate over the proceedings of Arbitration. Both the parties further agree that they shall not invoke the jurisdiction of Civil Courts to settle any grievance arising out of this MOU but shall proceed for the arbitration to settle their grievances as stipulated herein.

IN WITTNESS WHERE OF parties hereto have set their hands through their authorized representatives, on this MOU and affixed their respective seals on date, month and year first above written in the presence of witnesses.

FIRST PARTY Signature & Seal SECOND PARTY Signature & Seal

Witness:-1

Witness:-2

Name and address

Name and Address

	PROPOSED RESIDENTIAL BUILDING	G AT DE	HRADUN		
SR.No.	Description	Unit	Quantity	Rate	Amount
1	Providing and laying in position ready mixed M-25 grade concrete for reinforced cement concrete work, using cement content as per approved design mix, manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work, including pumping of R.M.C. from transit mixer to site of laying, excluding the cost of centering, shuttering finishing and reinforcement, including cost of 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 the Engineer -in - charge.(Note :- Cement content considered in this item is @ 330 kg/cum. Excess/less cement used as per design mix is payable/recoverable separately).R.C.C	Cum	3513.7		
2	Steel reinforcement for R.C.C. work including straightening, cutting, bending,placing in position and binding all complete above plinth levelThermo- Mechanically Treated bars of grade Fe-500 D or more	KG	667000		
3	Surface dressing of the ground including removing vegetation and inequalities not exceeding 15 cm deep and disposal of rubbish, lead upto 50 m and lift upto 1.5 m.	Sqm	2813.57		
4	Supplying and filling in plinth with Jamuna sand under floors, including watering, ramming, consolidating and dressing complete.	Cum	422.03		
5	Diluting and injecting chemical emulsion for POSTCONSTRUCTIONAL anti- termite treatment (excluding the cost of chemical emulsion) With Chlorpyriphos/Lindane E.C. 20% with 1% concentration	Sqm	2813.57		
6	CC Work	Sqm	2813.57		
7	1:4:8 (1 Cement : 4 coarse sand : 8 graded stone aggregate 40	СОМ	636.94		
8	mm nominal size) Columns, Pillars, Piers, Abutments, Posts and Struts	Sqm	5326.4		
9	Suspended floors, roofs, landings, balconies and access platform	Sqm	10996.38		
10	Lintels, beams, plinth beams, girders, bressumers and cantilevers	Sqm	7618.88		
11	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level in all shapes and sizes in :	Cum	1935		
12	Half brick masonry with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V	Sqm	15940		
13	Extra for providing and placing in position 2 Nos 6mm dia. M.S. bars at every third course of half brick masonry.	Sqm	15940		
14	Plaster 6mm	Sqm	18000		
15	Plaster 12mm	Sqm	20500		
16	Plaster 15mm	Sqm	20500		
17 18	Plaster 18mm M.s Railing work (Blacony Railing+staircase+Fire Staircase+Ms Louver+Main Gate+railing)	Sqm Kg	27800 102100		
19	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.				
20	M.S. Tube	Kg	40000		
21	Providing and fixing 18mm thick gang saw cut mirror polished (premoulded and prepolished) machine cut for kitchen platforms, vanity counters ,window sills , facias and similar locations of required size of approved shade, colour and texture laid over 20mm thick base cement mortar 1:4 (1 cement : 4 coarse sand) with joints treated with white cement, mixed with matching pigment,epoxy touch ups, including rubbing, curing moulding and polishing to edge to give high gloss finish etc. complete at all levels.	Sqm	1026.08		
22	Extra for providing opening of required size & shape for wash basin/ kitchen sink in kitchen platform, vanity counter 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	704		
23	Providing and fixing Ist quality ceramic glazed wall 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	12172.16		
24	Providing and laying Ceramic glazed floor tiles of size 300x300 mm (thickness to be specified by the manufacturer) of 1st quality conforming to IS : 15622 of approved make in colours such as White, Ivory, Grey, Fume Red Brown, laid on 20 mm thick cement mortar 1:4 (1 Cement : 4 Coarse sand), including pointing the joints with white cement and matching pigment etc., complete.	Sqm	5502.99		

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25	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 & shade in skirting, riser of steps and Dado over 12 mm thick bed of cement mortar 1:3 (1 cement: 3 coarse sand), including grouting the joint with white cement & matching pigments etc. complete	Sqm	14580	
26	Providing and laying <b>Vitrified tiles</b> 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 & <b>shade in skirting, riser of steps and</b> <b>Dado</b> over 12 mm thick bed of cement mortar 1:3 (1 cement: 3 coarse sand), including grouting the joint with white cement & matching pigments etc. complete	Sqm	1747.8	
27	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 & length ( hold fast lugs or dash fastener shall be paid for separately).	Cum	75.8	
28	Providing and fixing ISI marked flush door shutters conforming to IS: 2202 (Part I) decorative type, core of block board construction with frame of 1st class hard wood and well matched teak 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters.	Sqm	566.72	
29	Providing and fixing ISI marked flush door shutters conforming to IS :2202 (Part I) non-decorative type, core of block board construction with frame of 1st class hard wood and well matched commercial 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters:35 mm thick including ISI marked Stainless Steel butt hinges with necessary screws	Sqm	2515.04	
30	Providing and fixing Aluminium body tubular type universal hydraulic door closer (having brand logo with ISI, 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 shown as per architectural drawing and direction of the Engieer-in-Charge	Nos	352	
31 32	Jali door Fire door	Sqm Sqm	566.72 176	
33	Three track three panels sliding door with fly proof S.S wire mesh (Two nos. glazed & one no. wire mesh panels) made of (big series) frame 116 x 45 mm & sash 46 x 82 mm both having wall thickness of $2.3 \pm 0.2$ mm and single glazing bead / double glazing bead of appropriate dimension. (Area of door above 2.00sqm upto 5.00 sqm)	Sqm	2188.85	
34	Three track three panels sliding window with fly proof SS wire mesh (Two nos. glazed & one no. wire mesh panels) made of (small series) frame 92 x 44 mm & sash 32 x 60 mm both having wall thickness of $1.9 \pm 0.2$ mm and single glazing bead of appropriate dimension (Area of window upto 1.75 sqm).	Sqm	600.4	
35	Providing and fixing factory made uPVC white colour fixed glazed windows/ventilators comprising of uPVC multi-chambered frame and mullion (where ever required) extruded profiles duly reinforced with 1.60 $\pm$ 0.2 mm thick galvanized mild steel section made from roll forming process of required length (shape & size according to uPVC profile), uPVC extruded glazing beads of appropriate dimension, EPDM gasket, G.I fasteners 100 x 8 mm size for fixing frame to finished wall, plastic packers, plastic caps and necessary stainless steel screws etc. Profile of frame shall be mitred cut and fusion welded at all corners, multion (ifrequired) shall be also fusion welded including drilling of holes for fixing hardware's and drainage of water etc. After fixing framethe gap between frame and adjacent finished wall shall be filled with weather proof silicon sealant over backer rod of required size and of approved quality, all complete as per approved drawing & direction of Engineer-in-Charge. (Single / double glass panes and silicon sealant shall be paid separately). Note: For uPVC frame, sash and mullion extruded profiles minus 5% tolerance in dimension i.e. in depth & width of profile shall be acceptable. 9.147B.1 Fixed window / ventilator made of (small series) frame 47 x 50 mm & mullion 47 x 68 mm both having wall thickness of 1.9 $\pm$ 0.2 mm and single glazing bead of	Sqm	193.6	
20	enpropriote dimension (Area unto 0.75 arm.)	<b>C</b>	2500	
36	Green Baroda Lift Wall+Staircase+Lobby Work(Replace Kota Stone) b) Laying brick bats with mortar using broken bricks/brick bats 25 mm to 115mm size with 50% of cement mortar 1:5 (1 cement : 5 coarse sand) admixed with water proofing compound conforming to IS : 2645 and approved by Engineer-in-charge over 20 mm thick layer of cement mortar of mix 1:5 (1 cement :5 coarse sand) admixed with water proofing compound conforming to IS : 2645 and approved by Engineer-in-charge to required slope and treating similarly the adjoining walls upto 300 mm height including rounding of junctions of walls and slabs c) After two days of proper curing applying a second coat of cement slurry using 2.75 kg/ sgm of cement admixed with water proofing Draviding aplo 75% for more compared 4/2/4 (1 cement : 2 coarse	Sqm Sqm	3500 2834.85	
38	Providing gola 75x75 mm in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 stone aggregate 10 mm and down gauge), including finishing with cement mortar 1:3 (1 cement : 3 fine sand) as per standard design :	Rmt	1896.9	

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39	Making khurras 45x45cm with average minimum thickness of 5 cm cement concrete 1:2:4 (1 cement :2 coarse sand : 4 graded stone aggregate of 20mm nominal size) over P.V.C. sheet 1m x 1m x 400 micron, finished with 12mm cement plaster 1:3 (1 cement :3 coarse sand) and a coat of neat cement rounding the edge sand making and finishing the outlet complete	Nos	70	
40	Supply with Filling fly ash amd earth in trenches or embankment in layer for Toilets	Sqm	622.4	
41	Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade :Two or more coats on new work over an under coat of suitable shade with ordinary paint of approved brand and manufacture	Sqm	3153.97	
42	Door Handel Lock .	Nos	1760	
43	Door Closer	Nos	352	
44	Providing and fixing 150 mm bright finished floor brass door stopper with rubber cushion, necessary brass screws etc. to suit shutter thickness complete	Nos	1052	
45	Providing and applying white cement based putty of average thickness1 mm, of approved brand and manufacturer, over the plastered wall surface to prepare the surface even and smooth complete.	Sqm	78953.4	
46	External paint-Finishing walls with Acrylic Smooth exterior paint of required shade :New work (Two or more coat applied @ 1.67 ltr/10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/10 sqm)	Sqm	15065	
47	Internal paint-Wall painting with acrylic emulsion paint, having VOC (Volatile Organic Compound) content less than 50 grams/ litre, of approved brand and manufacture, including applying additional coats wherever required, to achieve even shade and colour.Two Coat	Sqm	78953.4	
48	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 water proofing cement compound @ 0.253 kg/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	7161.05	
49	Injection grouting: Note: (The Water proofing work must be executed by an approved specialized Agency. The Contractor shall give a 10 years guarantee as per instruction of the Project Manager).Providing & fixing 18mm dia nozzles at 1.2 meter center to center on the junction of the base & verticals. Also at 0.75metre center to center at all construction joints, corners etc. and injecting non shrink grout mixed with an admixture of neat cement slurry.	Sqm	230	
50	Providing and fixing stainless steel (Grade 304) railing made of Hollow tubes, channels, plates etc., including welding, grinding, buffing, polishing and making curvature (wherever required) and fitting the same with necessary stainless steel nuts and bolts complete, i/c fixing the railing with necessary accessories & stainless steel dash fasteners, stainless steel bolts etc., of required size, on the top of the floor or the side of waist slab with suitable arrangement as per approval of Engineer-incharge, (for payment purpose only weight of stainless steel members shall be considered excluding fixing accessories such as nuts, bolts,fasteners etc.).	Rm	680	
51	Tremix Floor 1:1.5:3 with Hardner (as per specification 150mm thik average	Cum	550	

#### Plumbing & water supply work

	Plumbing & water			_	-
S.R.	Description	unit	Quantity	Rate	Amount
1	China Orissa Pattern WC Pan	Each	176	[	
2	Wall Hung European Type Water Closet	Each	704		
3	Concealed Cistern Dual Flush	Each	704		
4	Under Counter Circular Wash Basin With Cp Brass	Each	880		
5	Silent Bottel Trap 32mm dia With 50 mm	Each	880		
6	Wash Basin Mixer	Each	880		
7	Short Body Bib Cock	Each	880		
8	Toilet Holder Tissue	Each	704		
9 10	Coral Super Value Pack Angle Valves	Each Each	704 4224		
10	Health Faucet	Each	704		
12	Overhead Shower	Each	704		
13	Bath and Shower Mixer	Each	704		
14	Kitchen Sink Singal Bowl	Each	176		
15	Sink Mixer	Each	176		
16	Cp Waste	Each	704		
17	PVC Connection	Each	3696		
18	Exten Nipple	Each	4400		
19	Splash Shower Pannel	Each	176		
20 21	Towel Ring Soap Dish	Each Each	880 880		
21	Mirror In Toilets	Each	880		
22	Floor Trap	Each	1760		
24	PVC Floor Drain	Each	704		
25	Balcony Drain	Each	528		
26	UPVC Soil waste and vent pipes 80mm dia	Meter	7383		
27	UPVC Soil waste and vent pipes 110mm dia	Meter	6139		
	UPVC Soil waste and vent pipes 160mm dia	Meter	1326		
	UPVC Soil waste and vent pipes 65mm dia	Meter	1209		
	UPVC Soil waste and vent pipes 40mm dia	Meter	406		
31	MS Holder Bet Clamps 150mm	Each	1056		
	MS Holder Bet Clamps 100mm MS Holder Bet Clamps 80mm	Each	2640 2640		
33 34	MS Holder Bet Clamps 65mm	Each Each	1056		
34 35	MS Holder Bet Clamps 65mm MS Holder Bet Clamps 160mm	Each	81		
36	Plain Band	Each	805		
37	Plain Junction(110X110X110)	Each	880		
38	Plain Junction (80x80x80mm)	Each	880		
39	Terminal PVC 110mm	Each	100		
40	Terminal PVC 80mm	Each	366		
41	PVC Trap 110mm	Each	176		
42	Deep Sealtrap 110mm	Each	1584		
	Providing, fixing testing, and commissioning of CPVC) pipe as per CTS SDR-11 - pipe material as per ASTM D 1784 and pipe dimension				
	and specs as per ASTM D 2846 & fittings such as tees, elbows,				
43	reducers, male/female connector, clamps etc. , jointing with CPVC				
40	solvent cement as per manufacturer recommendations conforming to				
	ASTM-F493 complete (Exposed Pipe) [Pipe running in shaft and terrace				
	etc.]. For Cold & flushing water supply				
44	1/2 Inch dia pipe (Sch 11)	Rm	14500		
45	3/4 Inch dia pipe (Sch 11)	Rm	2655		
46	1 Inch dia pipe (Sch 11)	Rm	3958		
47	1-1/4 Inch dia pipe (Sch 11)	Rm	2630		
	1-1/2 Inch dia pipe (Sch 11)	Rm	1962		
49	2 Inch dia pipe (Sch 11)	Rm	1085		
	Providing, fixing testing, and commissioning of CPVC) pipe as per CTS SDR-80 - pipe material as per ASTM D 1784 and pipe dimension and				
	specs as per ASTM D 2846 & fittings such as tees, elbows, reducers,				
50	male/female connector, clamps etc., jointing with CPVC solvent cement				
	as per manufacturer recommendations conforming to ASTM-F493				
	complete. (Exposed Pipe) [Pipe running in shaft and terrace etc.]. For Cold &				
	flushing water supply				
51	2-1/2 Inch dia pipe (Sch 80)	RM	1107		
	Providing and fixing PEx piping (Giacomini, Italy) (Pipe in pipe) system,				
52	NSF approved with crimp/compression joints as required all complete. with adequate size Nitril Elastomeric rubber insulation. For Hot water supply				
	only				
53	15 mm dia	RM	5662.5		
54	20 mm dia	RM	1195		
	Providing, fixing, testing and commissioning Ball valve with hard chrome				
55	plated ball inside PTFE (Teflon) seat and ring with chrome plated centre				
50	handle with female BSP threads complete in all respect. Minimum				
56	working pressure 15 Kg/cm². 15 mm NB	Each	182		
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20 mm NB	Each	885	
25 mm NB	Each	182	
32 mm NB	Each	60	
40 mm NB	Each	29	
50 mm NB	Each	16	
Providing and fixing wafer type cast iron butterfly valves tested to			
15kg/sqcm pressure including flanges.			
65 mm NB	Each	16	
80 mm NB	Each	13	
100 mm NB	Each	8	
150 mm NB	Each	2	
P/F G.I. pipe with necessary fittings complete - pipe to be of medium			
class and threaded joints to be made using hole tite to ensure leak proof			
instalation, pipes to be painted with 2 coats of red oxide primer over 2			
coats of enamel paint of shade as approved. (Plant room & roof piping)			
150 mm dia, NB	RM	28	
100 mm dia, NB	RM	130	
80 mm dia, NB	RM	490	
65 mm dia, NB	RM	139	
50 mm dia, NB	RM	85	
40 mm dia, NB	RM	70	
32 mm dia, NB	RM	35	
25 mm dia, NB	RM	23	
P/F G.I. pipe with necessary fittings complete - pipe to be of medium		-	1
class and threaded joints to be made using hole tite to ensure leak proof			
instalation, pipes to be painted with 2 coats of red oxide primer over 2			
coats of enamel paint of shade as approved. (External Cold & Flushing Water			
Work)			
100 mm dia, NB	RM	183	
80 mm dia, NB	RM	178	
Providing, fixing testing, and commissioning of CPVC) pipe as per CTS			
SDR-11 - pipe material as per ASTM D 1784 and pipe dimension and			
specs as per ASTM D 2846 & fittings such as tees, elbows, reducers,			
male/female connector, clamps etc., jointing with CPVC solvent cement			
as per manufacturer recommendations conforming to ASTM-F493			
complete. (External irrigation Work)			
June ( June )			
1" dia (SDR 11)	RM	38	
2" dia pipe (SDR - 11)	RM	255	
Providing and filling sand of grading zone V or coarse grade alround the			
CPVC pipes in external work.			
25 mm dia, NB	RM	38	
50 mm dia, NB	RM	255	
80mm dia,NB,75mm	RM	178	
100 mm dia, NB	RM	183	
P/F Y Strainer in cast iron with SS 304 screen having 1.2mm perforations			
complete with BS 10 F flange, boths/nuts complete.			
150 mm dia	Each	1	
Providing and fixing brass auto air vent valve PN 10 rating of GIA			
complete suitable for domestic cold water supply.			
15 mm dia nominal bore	Each	13	
Providing & Fixing of washing hydrant / Garden hydrant outlet consisting			
1 No. 20mm dia. ball valve & brass nozzle for connecting rubber hose	Nos	4.4	
including pipes, fittings and accesssories complete.	NUS	11	
Providing, fixing, testing and commissioning of motorised butterfly valve			
Providing, fixing, testing and commissioning of motorised butterfly valve of 50mm dia for filling of overhead water tank complete with high and low			
of 50mm dia for filling of overhead water tank complete with high and low			
of 50mm dia for filling of overhead water tank complete with high and low level control switches to control tanks. The level controllers shall be installed in overhead tanks. The level switch will close the valve when	Each	1	
of 50mm dia for filling of overhead water tank complete with high and low level control switches to control tanks. The level controllers shall be installed in overhead tanks. The level switch will close the valve when water level is high in overhead tank and open the valve when overhead water tank level is low. The system should be complete in all respects	Each	1	
of 50mm dia for filling of overhead water tank complete with high and low level control switches to control tanks. The level controllers shall be installed in overhead tanks. The level switch will close the valve when water level is high in overhead tank and open the valve when overhead	Each	1	
of 50mm dia for filling of overhead water tank complete with high and low level control switches to control tanks. The level controllers shall be installed in overhead tanks. The level switch will close the valve when water level is high in overhead tank and open the valve when overhead water tank level is low. The system should be complete in all respects with accessories 220 V AC / 2 V DC, IP67 electrical water level control unit, copper control wiring in whether proof casing etc. (Make:	Each	1	
of 50mm dia for filling of overhead water tank complete with high and low level control switches to control tanks. The level controllers shall be installed in overhead tanks. The level switch will close the valve when water level is high in overhead tank and open the valve when overhead water tank level is low. The system should be complete in all respects with accessories 220 V AC / 2 V DC, IP67 electrical water level control	Each	1	
of 50mm dia for filling of overhead water tank complete with high and low level control switches to control tanks. The level controllers shall be installed in overhead tanks. The level switch will close the valve when water level is high in overhead tank and open the valve when overhead water tank level is low. The system should be complete in all respects with accessories 220 V AC / 2 V DC, IP67 electrical water level control unit, copper control wiring in whether proof casing etc. (Make: AIP/Audco/Advance )	Each	1	
of 50mm dia for filling of overhead water tank complete with high and low level control switches to control tanks. The level controllers shall be installed in overhead tanks. The level switch will close the valve when water level is high in overhead tank and open the valve when overhead water tank level is low. The system should be complete in all respects with accessories 220 V AC / 2 V DC, IP67 electrical water level control unit, copper control wiring in whether proof casing etc. (Make: AIP/Audco/Advance ) Providing and fixing 600 mm dia F.R.P. water tank manhole cover and			
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of 50mm dia for filling of overhead water tank complete with high and low level control switches to control tanks. The level controllers shall be installed in overhead tanks. The level switch will close the valve when water level is high in overhead tank and open the valve when overhead water tank level is low. The system should be complete in all respects with accessories 220 V AC / 2 V DC, IP67 electrical water level control unit, copper control wiring in whether proof casing etc. (Make: AIP/Audco/Advance ) Providing and fixing 600 mm dia F.R.P. water tank manhole cover and			
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of 50mm dia for filling of overhead water tank complete with high and low level control switches to control tanks. The level controllers shall be installed in overhead tanks. The level switch will close the valve when water level is high in overhead tank and open the valve when overhead water tank level is low. The system should be complete in all respects with accessories 220 V AC / 2 V DC, IP67 electrical water level control unit, copper control wiring in whether proof casing etc. (Make: AIP/Audco/Advance ) Providing and fixing 600 mm dia F.R.P. water tank manhole cover and frame and lockable arrangement complete in all respects (load bearing 500kg) . Providing & fixing S.S. (304) 700 mm long pipe puddle flanges of required size to under water tanks & retaining wall. (Water Tank shall be constructed by civil contractor - not included in this contract). Note :			
of 50mm dia for filling of overhead water tank complete with high and low level control switches to control tanks. The level controllers shall be installed in overhead tanks. The level switch will close the valve when water level is high in overhead tank and open the valve when overhead water tank level is low. The system should be complete in all respects with accessories 220 V AC / 2 V DC, IP67 electrical water level control unit, copper control wiring in whether proof casing etc. (Make: AIP/Audco/Advance ) Providing and fixing 600 mm dia F.R.P. water tank manhole cover and frame and lockable arrangement complete in all respects (load bearing 500kg) . Providing & fixing S.S. (304) 700 mm long pipe puddle flanges of required size to under water tanks & retaining wall. (Water Tank shall be constructed by civil contractor - not included in this contract).			

3. Size of plate welded center of pipes - 3 D x 3 D x 5 mm (D- Diameter of Pipes)			1	
25 mm dia	Each	23	1	
50 mm dia	Each	6		
65 mm dia	Each	6		
80 mm dia	Each	6		
100 mm dia	Each	23		
150 mm dia	Each	6		
Providing & fixing brass mesh in elbow with necessary G.I. Vent pipe			1	
with fittings 100 mm dia	Each	11	+	
	Eauli	11	+	
Providing & fixing mosquito proof brass overflow grating for tanks	+ +		+	
65 mm dia	Each	11	1	
Providing and fixing M.S. structural work fabricated from standard			1	
sections, (MS rounds, angles, channels etc.) including cutting to size,				
drilling, welding, including cost of fasteners, clamps in RCC structural	KG	263	1	
members as directed, including two or more coats of synthetic paint over		203	1	
one coat of primer after surface preparation including cutting and making			1	
good walls.	<u> </u>			
	┨────┤			
Providing & fixing M.S. slotted angle iron 40x40x2 mm thick with stove			1	
enamel finish & fixed to brick masonry or RCC walls with 12mm dia bolts embedded in cement concrete blocks 1:2:5 (1 cement: 2 coarse			1	
sand: 5 stone aggregate 12.5 mm nominal size) 100x100x100 mm size			1	
for masonry walls & with expandable anchor fasteners on RCC spaced	Mtr	173	1	
not exceeding 600 mm with 15 mm dia G.I. spacer between wall & angle			1	
complete as directed by Engineer-in-Charge.			1	
			1	
Constructing masonry chamber 30x30x50 cm,inside with 75 class	1		1	
designation brick work in cement mortar 1:4 (1 cement:4 coarce sand) for	r		1	
stop cock complete with C.I. surface box 100x100x75mm (inside) with				
locking arrangement and RCC top slab 1:2:4 mix (1 cement : 2 corase			1	
sand: 4 graded stonr aggregate 20mm nominal size) necessary			1	
excavation foundation concret 1:5:10 (1 cement:5 fine sand : 10 graded			1	
stone aggregate 40 mm nominal size) and inside plastering with cement			1	
mortor 1:3 (1 cement : 3 coarse sand) 12 mm thick finished with a			1	
floating coat of neat cement complete as per standard design.			1	
With E.B.S. bricks	Faab	•	+	
With F.P.S. bricks	Each	9	+	
Constructing masonry Chamber 90X80X75 cm, inside with 75 class	++		+	
designation brick work in cement mortar 1:4 (1 cement: 4 coarse sand)			1	
for sluice valve, with C.I. surface box 100 mm top diameter, 160 mm				
bottom diameter and 180 mm deep (inside) with channel lid and RCC top			1	
slab 1:2:4 mix (1 cement: 2 coarse sand: 4 graded stone sggregate 20			1	
mm nominal size) necessary excavation foundation concrete 1:5:10 (1			1	
cement : 5 fine sand: 10 graded stone aggregate 40 mm nominal size)			1	
and inside plastering with cement mortar 1:3 (1 cement: 3 coarse sand)			1	
12 mm thick finished with a floating coat of neat cement complete as per			1	
standard design:			1	
	╞╴╸			
With F.P.S. bricks	Each	2	+	
Droviding 9 Fiving of water motor conforming to 10 and tests the	+ +			
Providing & Fixing of water meter conforming to IS and tested by			1	
Municipal Board complete 50 mm dia nominal bore	Each	1	+	
50 mm dia nominal bore Sterilization of all cold water supply lines as per specifcation with chloring		1	+	
dosing.	ltem	1	1	
	+ +		+	
Making 50mm Diam. water connection with local authority including	+ +		1	
approvals / liasioning, excavtion & back filling, cutting and making good			1	
of existing Authority supply line etc. complete (Fees Payment by Client)	ltem	1	1	
Providing and fixing SW pipes including all fittings & support as per				
manufactures recommendation.				
150 mm dia	RM	10	1	
250 mm dia	RM	18		
	↓			
Providing and laying cement concrete 1:5:10 (1 cement : 5 coarse sand				
10 graded stone aggregate 40 mm nominal size) alround uPVC pipes			1	
including bed concrete as per standard design.	+ +	10	+	
150 mm dia	RM	10	+	
250 mm dia	RM	18		
Draviding and loving non-pressure NDO class DOO city - with a "	┨───┤			
Providing and laying non-pressure NP2 class RCC pipes with collars			1	
jointed with stiff mixture of cement mortar in the proportion of 1:2 (1			1	
compart : 2 find pand) including teating of joints at a semilate _ =			1	
cement : 2 fine sand) including testing of joints etc. complete For Sewag	,			
Line		400		
	RM	488		

Providing and laying cement concrete 1:5:10 (1 cement : 5 coarse sand :			
10 graded stone aggregate 40 mm nominal size) haunching bed concrete			
for R.C.C. pipes as per standard design. 250 mm dia RCC pipe	RM	488	
Providing and fixing square-mouth S.W. gully trap grade 'A" complete with C.I. Grating, brick masonry chamber with bricks of class designation 75 in cement mortar 1:5 (1 cement : 5 coarse sand) inside plaster above trap 12 mm thick m cement mortar 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement outside plaster 12 mm thick in cement mortar 1:3 (1 cement :3 coarse sand) 10 cm thick foundation			
concrete 1:5:10 mix (1cement :5 coarse sad : 10 graded stone aggregate 40 mm nominal size) space between chamber, and trap filled-with cement concrete 1:2:4 (1cement :2 coarse sand :4graded stone aggregate 20 mm nominal size) and water tight C.I. cover with frame of 300 x 300 mm size (inside) the weight of cover to be not less than 4.50 kg frame to be not less than 2.70 kg as per standard design.			
180x150mm size P type With FPS bricks	Each	119	
Construction brick masonry manhole with 75 class designation bricks in cement mortar 1:4 (1 cement : 4 coarse sand) RCC top slab with 1:2:4 mix (1 cement : 2 coarse sand 4 graded stone aggregate 20mm nominal size) foundation concrete 1:4:8 mix (1 cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size) inside plastering 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement and making channels 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 complete as per standard design.			
Inside size 90 x 80 cm and 60 cm deep including F.R.P. Cover with frame 600x450 mm dimensions (capable to bear 20 T Load ).			
With FPS bricks	Each	34	
Inside size 120 x 90 cm and 100 cm deep including F.R.P. Cover with frame 600 x 450 dia dimensions ( capable to bear 20 T Load ).			
With FPS bricks	Each	29	
Constructing brick masonary circular manhole 1.2m internal dia at bottom and 0.6 m dia at top in cement mortar 1:4 (1 cement : 4 coarse sand) inside cement plaster 12mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement, foundation concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40mm nominal size) and making necessary channel in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) finished with a floating coat of neat cement all complete as per standard design.			
1.5 m deep with including F.R.P. Cover with frame 600 x 450 dia			
, , , , , , , , , , , , , , , , , , ,	Each	6	
1.5 m deep with including F.R.P. Cover with frame 600 x 450 dia dimensions ( capable to bear 20 T Load ).	Each	6	
<ul> <li>1.5 m deep with including F.R.P. Cover with frame 600 x 450 dia dimensions ( capable to bear 20 T Load ).</li> <li>With F.P.S. bricks class designation 75</li> <li>Constructing brick masonary circular manhole 1.52m internal dia at bottom and 0.6 m dia at top in cement mortar 1:4 (1 cement : 4 coarse sand) inside cement plaster 12mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement, foundation concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40mm nominal size) and making necessary channel in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) finished with a floating coat of neat cement all complete as per standard design.</li> <li>2.3 m deep with including F.R.P. Cover with frame 600 x 450 dia</li> </ul>	Each	6	
1.5 m deep with including F.R.P. Cover with frame 600 x 450 dia dimensions ( capable to bear 20 T Load ). With F.P.S. bricks class designation 75 Constructing brick masonary circular manhole 1.52m internal dia at bottom and 0.6 m dia at top in cement mortar 1:4 (1 cement : 4 coarse sand) inside cement plaster 12mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement, foundation concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40mm nominal size) and making necessary channel in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) finished with a floating coat of neat cement all complete as per standard design.	Each	6	
<ul> <li>1.5 m deep with including F.R.P. Cover with frame 600 x 450 dia dimensions ( capable to bear 20 T Load ).</li> <li>With F.P.S. bricks class designation 75</li> <li>Constructing brick masonary circular manhole 1.52m internal dia at bottom and 0.6 m dia at top in cement mortar 1:4 (1 cement : 4 coarse sand) inside cement plaster 12mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement, foundation concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40mm nominal size) and making necessary channel in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) finished with a floating coat of neat cement all complete as per standard design.</li> <li>2.3 m deep with including F.R.P. Cover with frame 600 x 450 dia dimensions ( capable to bear 20 T Load ).</li> <li>With F.P.S. bricks class designation 75</li> <li>Extra for depth for for manhole 90 x 80 cm beyond 60 cm deep.</li> </ul>	Each	2	
<ul> <li>1.5 m deep with including F.R.P. Cover with frame 600 x 450 dia dimensions ( capable to bear 20 T Load ).</li> <li>With F.P.S. bricks class designation 75</li> <li>Constructing brick masonary circular manhole 1.52m internal dia at bottom and 0.6 m dia at top in cement mortar 1:4 (1 cement : 4 coarse sand) inside cement plaster 12mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement, foundation concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40mm nominal size) and making necessary channel in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) finished with a floating coat of neat cement all complete as per standard design.</li> <li>2.3 m deep with including F.R.P. Cover with frame 600 x 450 dia dimensions ( capable to bear 20 T Load ).</li> <li>With F.P.S. bricks class designation 75</li> <li>Extra for depth for for manhole 90 x 80 cm beyond 60 cm deep.</li> <li>With F.P.S. bricks class designation 75</li> </ul>			
<ul> <li>1.5 m deep with including F.R.P. Cover with frame 600 x 450 dia dimensions ( capable to bear 20 T Load ).</li> <li>With F.P.S. bricks class designation 75</li> <li>Constructing brick masonary circular manhole 1.52m internal dia at bottom and 0.6 m dia at top in cement mortar 1:4 (1 cement : 4 coarse sand) inside cement plaster 12mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement, foundation concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40mm nominal size) and making necessary channel in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) finished with a floating coat of neat cement all complete as per standard design.</li> <li>2.3 m deep with including F.R.P. Cover with frame 600 x 450 dia dimensions ( capable to bear 20 T Load ).</li> <li>With F.P.S. bricks class designation 75</li> <li>Extra for depth for for manhole 90 x 80 cm beyond 60 cm deep.</li> </ul>	Each	2	
1.5 m deep with including F.R.P. Cover with frame 600 x 450 dia         dimensions ( capable to bear 20 T Load ).         With F.P.S. bricks class designation 75         Constructing brick masonary circular manhole 1.52m internal dia at         bottom and 0.6 m dia at top in cement mortar 1:4 (1 cement : 4 coarse         sand) inside cement plaster 12mm thick with cement mortar 1:3 (1         cement : 3 coarse sand) finished with a floating coat of neat cement,         foundation concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone         aggregate 40mm nominal size) and making necessary channel in cement         concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate         20mm nominal size) finished with a floating coat of neat cement all         complete as per standard design.         2.3 m deep with including F.R.P. Cover with frame 600 x 450 dia         dimensions ( capable to bear 20 T Load ).         With F.P.S. bricks class designation 75         Extra for depth for for manhole 90 x 80 cm beyond 60 cm deep.         With F.P.S. bricks class designation 75         Extra for depth for for manhole 90 x 90 cm beyond 60 cm deep.	Each	2	

11/2       beyond 2.30m.       M       4         11/4       With F.P.S. broke class designation 75       M       4         Providing and futing of orange colour salery set of minimum 6 mm thick in the insula like normality of t	Extra fo	or depth for circular manholes 1.52 m internal dia (at bottom)(			
Providing and fixing of ourage colour safety rest of minimum 6 mm thick plastic encapsulated as per IS:10910 on 12 mm dia steel bar conforming to IS: 1788 having minimum consistencies as 2 mm as 2 mm and ouver all minimum length 253 mm width as 168 mm with minimum 112 mm space barbwert phont die Length as 2 mm per set situation at all steel bar conforming to IS: 1788 having minimum clouding fixing in marbles with 30 ouver approxed barbwert phont die Length and 2 mm per set situation at all steel to be visible own after fixing. Including fixing in marbles with 30 out to be visible own after fixing. Including fixing in marbles with 30 out to to situation and having manufacturers permanent identification mark to be visible own after fixing. Including fixing in marbles with 30 out stone aggregate 20 mm nominal size ) complete as per design.         Each         69           Issue aggregate 20 mm nominal size ) complete as per design.         Each         69           Issue aggregate 20 mm nominal size ) complete as per design.         Each         69           Issue aggregate 20 mm nominal size ) complete as per design.         Each         69           Issue affect addition and marking addition additi					
plastic oncepsulated as per 15:109100 ni 12 mm dia steel bar conforming       Fig. 12 mm         plastic oncepsulated as per 15:109100 ni 12 mm dia steel bar conforming       Fig. 12 mm         plastic oncepsulated as per 15:109100 ni 12 mm dia steel bar conforming       Fig. 12 mm         plastic oncepsulated in the band plastic of a mm of the minimum 112 mm       Specification mark.         plastic oncepsulated in the band plastic of band plastic oncepsulate with the transmit dentification mark.       Each       69         plastic oncepsulated in the band plastic of band plastic oncepsulate with the transmit dentification mark.       Each       69         plastic oncepsulated in the band plastic oncepsulate with the band plastic oncepsulate as per design.       Each       69         plastic oncepsulated in the band plastic oncepsulate as per design.       Each       69         plastic oncepsulate as per 12 mm       plastic oncepsulate as per design.       Each       69         plastic oncepsulate as per 12 mm       plastic oncepsulate as per design.       Each       69         plastic oncepsulate as per design.       plastic oncepsulate as per design.       Each       69         plastic oncepsulate as per design.       plastic oncepsulate as per design.       Each       69         plastic oncepsulate as per design.       plastic oncepsulate as per design.       plastic oncepsulate as per design.       plastic oncepsulate as per design	With F.I	P.S. bricks class designation 75	М	4	
excavation for sockets, & dressing of sides, ramming of bottoms, depth upt 0.1-5m including geting out the excavated soil & then returning the consolidating each deposited layer by ramming, watering let and disposing of surplus excavated soil as directed, within lead of 50m.         151       All kinds of soil       —         152       Pipes, cables etc exceeding 80 mm dia but not exceeding 300 mm dia approvall, liasioning, excursion & back filling, cutting and making good of existing municapil line & approval from Pollution Control Board etc.       1         153       approvall, liasioning, excursion & back filling, cutting and making good of existing municapil line & approval from Pollution Control Board etc.       1         154       biomediane Complete       Rm       63         155       800 mm dia RCC pipe       Rm       63         156       200 mm dia RCC pipe       Rm       268         157       800 mm dia RCC pipe       Rm       263         168       250 mm dia RCC pipe       Rm       263         179       800 mm dia RCC pipe       Rm       263         180       Doraded stone aggregate 40 mm nominal size hunching bed concrete for R-C. pipes as per standard design.       Rm       83         181       Bior m dia RCC pipe       Rm       63       163         182       Soin m dia RCC pipe       Rm       263       163         183	plastic e to IS: 17 all minir space b suitable specific to be vis 15 cm c	encapsulated as per IS:10910 on 12 mm dia steel bar conforming 1786 having minimum cross section as 23 mm x 25 mm and over imum length 263 mm width as 165 mm with minimum 112 mm between protruded legs having 2 mm as per standard drawing and le to withstand the bend test and chemical resistance test as per cations and having manufacturer's permanent identification mark <i>r</i> isible even after fixing, including fixing in manholes with 30 x 20 x cement concrete block 1:3:6 (1 cement : 3 coarse sand : 6 graded	Each	69	
Pipes, cables etc exceeding 80 mm dia but not exceeding 300 mm dia     RM     515       Making 250mm Diam. Sewage connection with municipal line including approvals/ liasioning, excavion & back filing, cutting and making good of existing municipal line & approval from Pollution Control Board etc. complete (Payment by Clent)     Item     1       Providing and laying non-pressure NP2 class RCC pipes with collars jointed with stiff mixture of cement nortar in the proportion of 1:2 (1 cement : 2 fine sand) including testing of joints etc. complete.     1     1       156     150 mm dia RCC pipe     Rm     63       157     300 nm dia RCC pipe     Rm     73       168     600 nm dia RCC pipe     Rm     73       169     600 nm dia RCC pipe     Rm     73       161     10 graded stone aggregate 40 mm nominal size) haunching bed concrete for R.C.C pipes as per standard design.     Rm     63       162     250 mm dia RCC pipe     Rm     63     16       163     300 nm dia RCC pipe     Rm     283     283       164     10 graded stone aggregate 40 mm nominal size) haunching bed concrete for R.C.C pipes as per standard design.     Rm     63     16       165     600 mm dia RCC pipe     Rm     18     258       163     300 nm dia RCC pipe     Rm     283     283       164     50 are color pipe     Rm     18       165	excavat upto 1.5 soil as r consolio	ation for sockets, & dressing of sides, ramming of bottoms, depth .5m including getting out the excavated soil & then returning the required, in layers not exceeding 20 cm in depth including lidating each deposited layer by ramming, watering etc and			
12     12     13       13     Making 250mm Diam. Sewage connection with municipal line including approvals/liasioning, excavition & back filling, cutting and making good of existing municipal line & approval from Pollution Control Board etc. complete (Payment by Clent) Providing and laying non-pressure NP2 class RCC pipes with collars jointed with stiff mixture of cement mortar in the proportion of 12 (1 cement: 2 fine sand) including testing of joints etc. complete.     1       154     150 mm dia RCC pipe     Rm     63       155     150 mm dia RCC pipe     Rm     205       154     250 mm dia RCC pipe     Rm     205       155     250 nm dia RCC pipe     Rm     205       156     260 nm dia RCC pipe     Rm     73       159     800 nm dia RCC pipe     Rm     205       161     10 graded stone aggregate 40 mm nominal size) haunching bed concrete for R.C.C. pipes as per standard design.     1     1       163     300 nm dia RCC pipe     Rm     258       163     300 nm dia RCC pipe     Rm     265       164     450 nm dia RCC pipe     Rm     265       163     300 nm dia RCC pipe     Rm     265       164     800 nm dia RCC pipe     Rm     265       163     300 nm dia RCC pipe     Rm     265       164     450 nm dia RCC pipe     Rm     265       165					
153     approviats/ liasioning, excavitor & back filling, cutting and making good of exc.     tem     1       2011     complete (Payment by Client)     Providing and laying non-pressure NP2 class RCC pipes with collars     1       154     jointed with stiff mixture of cement mortar in the proportion of 1.2 (1 cement : 2 fine sand) including testing of joints etc. complete.     Rm     63       155     150 mm dia RCC pipe     Rm     258       156     250 mm dia RCC pipe     Rm     205       158     450 mm dia RCC pipe     Rm     205       169     600 nm dia RCC pipe     Rm     63       175     300 mm dia RCC pipe     Rm     16       160     10 graded stone aggregate 40 mm nominal size) haunching bed concreter     for R. Cc. pipes as per standard design.       176     250 mm dia RCC pipe     Rm     258       176     300 nm dia RCC pipe     Rm     258       176     250 mm dia RCC pipe     Rm     18       176     250 mm dia RCC pipe     Rm     258       176     600 mm dia RCC pipe     Rm     18       176     800 mm dia RCC pipe     <	Pipes, c	cables etc exceeding 80 mm dia but not exceeding 300 mm dia	RM	515	
156     250 mm dia RCC pipe     Rm     258       157     300 mm dia RCC pipe     Rm     205       158     450 mm dia RCC pipe     Rm     73       159     600 mm dia RCC pipe     Rm     18       160     10 graded stone aggregate 40 mm nominal size) haunching bed concrete for R.C. pipes as per standard design.     Rm     63       161     150 mm dia RCC pipe     Rm     63       162     250 mm dia RCC pipe     Rm     258       163     300 mm dia RCC pipe     Rm     258       164     450 mm dia RCC pipe     Rm     258       165     600 mm dia RCC pipe     Rm     18       166     600 mm dia RCC pipe     Rm     18       167     cement mortar 1:5 (1 cement 1:3 coarse sand), foundation concrete 1:4:8, inside a cutside 12 mm thick cement plactin, refilling and disposal of surplus earth as directed by Engineer-in-charge complete as per standard design.     65       167     cement 2: coarse sand : 4 graded stone aggregate 20 mm nominal size) (mixid with	approva existing complet Providin jointed	Als/ liasioning, excavtion & back filling, cutting and making good of g municiapl line & approval from Pollution Control Board etc. ete (Payment by Client) ing and laying non-pressure NP2 class RCC pipes with collars I with stiff mixture of cement mortar in the proportion of 1:2 (1	ltem	1	
156     250 mm dia RCC pipe     Rm     258       157     300 mm dia RCC pipe     Rm     205       158     450 mm dia RCC pipe     Rm     73       159     600 mm dia RCC pipe     Rm     18       160     10 graded stone aggregate 40 mm nominal size) haunching bed concrete for R.C. pipes as per standard design.     Rm     63       161     150 mm dia RCC pipe     Rm     63       162     250 mm dia RCC pipe     Rm     258       163     300 mm dia RCC pipe     Rm     258       164     450 mm dia RCC pipe     Rm     258       165     600 mm dia RCC pipe     Rm     18       166     600 mm dia RCC pipe     Rm     18       167     cement mortar 1:5 (1 cement 1:3 coarse sand), foundation concrete 1:4:8, inside a cutside 12 mm thick cement plactin, refilling and disposal of surplus earth as directed by Engineer-in-charge complete as per standard design.     65       167     cement 2: coarse sand : 4 graded stone aggregate 20 mm nominal size) (mixid with	150 mm	m dia RCC nine	Rm	63	
157     300 mm dia RCC pipe     Rm     205       158     450 mm dia RCC pipe     Rm     73       159     600 mm dia RCC pipe     Rm     18       150     10 graded stone aggregate 40 mm nominal size) haunching bed concrete for R.C.C. pipes as per standard design.     16       160     10 graded stone aggregate 40 mm nominal size) haunching bed concrete for R.C.C. pipes as per standard design.     Rm     63       161     150 mm dia RCC pipe     Rm     258       163     300 mm dia RCC pipe     Rm     258       164     500 mm dia RCC pipe     Rm     118       165     600 mm dia RCC pipe     Rm     118       166     600 mm dia RCC pipe     Rm     118       166     600 mm dia RCC pipe     Rm     118       166     600 mm dia RCC pipe     Rm     18       167     constructing Road gully chamber with bricks of class designated 75 in cement motrar 1:5 (1 cement : 5 coarse sand), foundation concrete 1:4:8, in side 6 outside 12 mm thick cement including excavation, refilling and disposal of surplus earth as directed by Engineer-in-charge complete as per standard design.     65       167     Construction brick masonry manhole with 75 class designation bricks in cement motrar 1:4 (1 cement : 4 coarse sand 2 graded stone aggregate 20 mm nominal size)     65       168     cement motrar 1:4 (1 cement : 4 coarse sand) RCC top slab with 1:2:4 mix (1 cement : 2					
158       450 mm dia RCC pipe       Rm       73         159       600 mm dia RCC pipe       Rm       18         160       10 graded stone aggregate 40 mm nominal size) haunching bed concrete for R.C.C. pipes as per standard design.       Rm       63         161       150 mm dia RCC pipe       Rm       63       63         162       250 mm dia RCC pipe       Rm       205       63         163       300 nm dia RCC pipe       Rm       18       63         164       450 mm dia RCC pipe       Rm       18       63         165       600 mm dia RCC pipe       Rm       18       63         166       soon m dia RCC pipe       Rm       18       63         167       Constructing Road gully chamber with bricks of class designated 75 in cement mortar 1:5 (1 cement : 5 coarse sand), foundation concrete 1:4:8, inside & outside 12 mm thick cement plaster 1:3 (1 cement : 3 coarse sand)       Rm       18         166       isosal of surplus earth as directed by Engineer-in-charge complete as per standard design.       65       65         167       cement motar 1:2:1 (argued stone aggregate 20 mm nominal size)       Each       65         168       coarse sand : 4 graded stone aggregate 20 mm nominal size)       12:4 mix (1 cement : 4 coarse sand) RCC top slab with 1:2:4 (1 cement : 2 coarse sand : 4 graded ston					
159       600 mm dia RCC pipe       Rm       18         Providing and laying cement concrete 1:5:10 (1 cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size) haunching bed concrete for R.C.C. pipes as per standard design.       63         161       150 mm dia RCC pipe       Rm       63         162       250 mm dia RCC pipe       Rm       258         163       300 mm dia RCC pipe       Rm       258         164       450 mm dia RCC pipe       Rm       118         165       600 mm dia RCC pipe       Rm       118         166       600 mm dia RCC pipe       Rm       118         166       600 mm dia RCC pipe       Rm       118         166       600 mm dia RCC pipe       Rm       118         167       Constructing Road gully chamber with bricks of class designated 75 in cement plaster 1:3 (1 cement : 3 coarse sand), foundation concrete 1:4:8, in addition addition add					
Providing and laying cement concrete 1:5:10 (1 cement : 5 coarse sand :       Image: Coarse sand :         160       10 graded stone aggregate 40 mn nominal size) haunching bed concrete for R.C.C. pipes as per standard design.         161       150 mm dia RCC pipe       Rm       63         162       250 mm dia RCC pipe       Rm       258         163       300 mm dia RCC pipe       Rm       258         164       450 mm dia RCC pipe       Rm       118         165       600 mm dia RCC pipe       Rm       118         166       for mm dia RCC pipe       Rm       118         167       constructing Road gully chamber with bricks of class designated 75 in cement mortar 1:5 (1 cement : 5 coarse sand), foundation concrete 1:4:8, inside & outside 12 mm thick cement plaster 1:3 (1 cement : 3 coarse sand) foundation concrete 1:4:8, inside & outside 12 mm thick cement plaster 1:3 (1 cement : 3 coarse sand) foundation concrete 1:4:4 (1 cement : 5 coarse sand). Foundation concrete 1:4:4 (1 cement : 5 coarse sand) foundation concrete 1:4:4 (1 cement : 5 coarse sand) foundation concrete 1:4:4 (1 cement : 4 coarse sand) RCC top slab with 1:2:4 (1 cement : 4 (1 cement : 4 coarse sand) RCC top slab with 1:2:4 (1 cement : 1:4 (1 cement : 4 coarse sand) RCC top slab with 1:2:4 mix (1 cement : 4 coarse sand) RCC top slab with 1:2:4 mix (1 cement : 4 coarse sand) RCC top slab with 1:2:4 mix (1 cement : 4 coarse sand) RCC top slab with 1:2:4 mix (1 cement : 3 coarse sand) RCC top slab with 1:2:4 mix (1 cement : 4 coarse sand) RCC top slab with 1:2:4 mix (1 cement : 4 coarse sand) RCC top slab with 1:2:4 mix (1 cement	600 mm	m dia RCC pipe			
162       250 mm dia RCC pipe       Rm       258         163       300 mm dia RCC pipe       Rm       205         164       450 mm dia RCC pipe       Rm       118         165       600 mm dia RCC pipe       Rm       118         166       constructing Road gully chamber with bricks of class designated 75 in cement mortar 1:5 (1 cement : 5 coarse sand), foundation concrete 1:4:8, inside & outside 12 mm thick cement plaster 1:3 (1 cement : 3 coarse sand) finished with a coat of neat cement including excavation, refiling and disposal of surplus earth as directed by Engineer-in-charge complete as per standard design.       600 x 600 cm size with F.R.P. Catch Basin Cover/grating with frame (500 x 600 mm) with fixed in 15 cm thick cement mortar 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) (Medium Duty )       Each       65         Construction brick masonry manhole with 75 class designation bricks in cement mortar 1:4 (1 cement : 4 coarse sand) RCC top slab with 1:2:4 mix (1 cement : 2 coarse sand 4 graded stone aggregate 20mm nominal size) foundation concrete 1:4:8 mix (1 cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size) inside plastering 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement and making channels 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 complete as per standard design.       65	10 grad for R.C.	ded stone aggregate 40 mm nominal size) haunching bed concrete C.C. pipes as per standard design.	Pm	62	
163       300 mm dia RCC pipe       Rm       205         164       450 mm dia RCC pipe       Rm       118         165       600 mm dia RCC pipe       Rm       118         166       softward       Rm       18         166       constructing Road gully chamber with bricks of class designated 75 in cement mortar 1:5 (1 cement : 5 coarse sand), foundation concrete 1:4:8, inside & outside 12 mm thick cement plaster 1:3 (1 cement : 3 coarse sand) finished with a coat of neat cement including excavation, refilling and disposal of surplus earth as directed by Engineer-in-charge complete as per standard design.       600 × 600 mm size with F.R.P. Catch Basin Cover/grating with frame (500 × 600 mm size with F.R.P. Catch Basin Cover/grating with frame (500 × 600 mm size with 75 class designation bricks in cement is 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) (Medium Duty)       Each       65         167       Construction brick masonry manhole with 75 class designation bricks in cement mortar 1:4 (1 cement : 4 coarse sand) RCC top slab with 1:2:4 mix (1 cement : 4 coarse sand) RCC top slab with 1:2:4 mix (1 cement : 3 coarse sand) finished with floating coat of neat cement and making channels in cement concrete 1:2:4 (1 cement : 2: coarse sand : 4 graded stone aggregate 20mm nominal size) foundation concrete 1:4:8 mix (1 cement : 4 coarse sand : 8 graded stone aggregate 20mm nominal size) finished with a floating coat of neat cement complete as per standard design.       65         168       coarse sand : 4 graded stone aggregate 20mm nominal size) finished with a floating coat of neat cement complete as per standard design.       61 <td></td> <td></td> <td></td> <td></td> <td></td>					
164       450 mm dia RCC pipe       Rm       118         165       600 mm dia RCC pipe       Rm       18         166       Constructing Road gully chamber with bricks of class designated 75 in cement mortar 1:5 (1 cement : 5 coarse sand), foundation concrete 1:4:8, inside & outside 12 mm thick cement plaster 1:3 (1 cement : 3 coarse sand) finished with a coat of neat cement including excavation, refilling and disposal of surplus earth as directed by Engineer-in-charge complete as per standard design.       Each       65         166       600 x 600 x 600 mm size with F.R.P. Catch Basin Cover/grating with frame (500 x 600 mm) with fixed in 15 cm thick cement mortar 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) (Medium Duty )       Each       65         167       Construction brick masonry manhole with 75 class designation bricks in cement mortar 1:4 (1 cement : 4 coarse sand) RCC top slab with 1:2:4 mix (1 cement : 2 coarse sand 4 graded stone aggregate 20mm nominal size) foundation concrete 1:4:8 mix (1 cement : 4 coarse sand : 8 graded stone aggregate 20mm nominal size) foundation concrete 1:4:8 mix (1 cement : 4 coarse sand : 4 graded stone aggregate 20mm nominal size) foundation concrete 1:4:8 mix (1 cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size) inside plastering 12 mm thick with foating coat of neat cement complete as per standard design.       Image: Ref the finished with floating coat of neat cement complete as per standard design.         168       cement mortar 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement and making channels in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) finished					
165       600 mm dia RCC pipe       Rm       18         Constructing Road gully chamber with bricks of class designated 75 in cement mortar 1:5 (1 cement : 5 coarse sand), foundation concrete 1:4:8, inside & outside 12 mm thick cement plaster 1:3 (1 cement : 3 coarse sand) finished with a coat of neat cement including excavation, refilling and disposal of surplus earth as directed by Engineer-in-charge complete as per standard design.       600 x 600 x 600 mm size with F.R.P. Catch Basin Cover/grating with frame (500 x 600 mm) with fixed in 15 cm thick cement mortar 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) (Medium Duty )       Each       65         Construction brick masonry manhole with 75 class designation bricks in cement mortar 1:3 (1 cement : 4 coarse sand) RCC top slab with 1:2:4 mix (1 cement : 2 coarse sand 4 graded stone aggregate 20mm nominal size) foundation concrete 1:4:8 mix (1 cement : 4 coarse sand : 8 graded stone aggregate 20mm nominal size) foundation concrete 1:4:3 mix (1 cement : 4 coarse sand : 8 graded stone aggregate 20mm nominal size) foundation concrete 1:4:8 mix (1 cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size) inside plastering 12 mm thick with cement and making channels 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 complete as per standard design.       65					
Constructing Road gully chamber with bricks of class designated 75 in cement mortar 1:5 (1 cement : 5 coarse sand), foundation concrete 1:4:8, inside & outside 12 mm thick cement plaster 1:3 (1 cement : 3 coarse sand) finished with a coat of neat cement including excavation, refilling and disposal of surplus earth as directed by Engineer-in-charge complete as per standard design.         166       sand) finished with a coat of neat cement including excavation, refilling and disposal of surplus earth as directed by Engineer-in-charge complete as per standard design.       Each         167       frame (500 x 600 mm size with F.R.P. Catch Basin Cover/grating with frame (500 x 600 mm) with fixed in 15 cm thick cement mortar 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) (Medium Duty )       Each       65         167       construction brick masonry manhole with 75 class designation bricks in cement mortar 1:4 (1 cement : 4 coarse sand) RCC top slab with 1:2:4 mix (1 cement : 2 coarse sand 4 graded stone aggregate 20mm nominal size) foundation concrete 1:4:8 mix (1 cement : 4 coarse sand) finished with floating coat of neat cement and making channels in cement concrete 1:2:4 (1 cement : 2 coarse sand 4 graded stone aggregate 20 mm nominal size) foundation concret 1:4:8 mix (1 cement : 4 coarse sand) finished with floating coat of neat cement and making channels in cement concrete 1:2:4 (1 cement : 2:2:4 (1 cement : 2:2					
cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) (Medium Duty)       (Medium Duty)         Construction brick masonry manhole with 75 class designation bricks in cement mortar 1:4 (1 cement : 4 coarse sand) RCC top slab with 1:2:4 mix (1 cement : 2 coarse sand 4 graded stone aggregate 20mm nominal size) foundation concrete 1:4:8 mix (1 cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size) inside plastering 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement and making channels 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 complete as per standard design.	cement inside 8 sand) fir and disp as per s 600 x 6 frame (5	at mortar 1:5 (1 cement : 5 coarse sand), foundation concrete 1:4:8, & outside 12 mm thick cement plaster 1:3 (1 cement : 3 coarse finished with a coat of neat cement including excavation, refilling sposal of surplus earth as directed by Engineer-in-charge complete standard design. 600 x 600 mm size with F.R.P. Catch Basin Cover/grating with (500 x 600 mm) with fixed in 15 cm thick cement mortar 1:2:4 (1	Each	65	
with a floating coat of neat cement complete as per standard design.	(Mediur Construction cement mix (1 c size) for stone as cement of neat	ruction brick masonry manhole with 75 class designation bricks in the mortar 1:4 (1 cement : 4 coarse sand) RCC top slab with 1:2:4 cement : 2 coarse sand 4 graded stone aggregate 20mm nominal bundation concrete 1:4:8 mix (1 cement : 4 coarse sand : 8 graded aggregate 40 mm nominal size) inside plastering 12 mm thick with the mortar 1:3 (1 cement : 3 coarse sand) finished with floating coat t cement and making channels in cement concrete 1:2:4 (1 cement			
Inside size 90 x 80 cm and 60 cm deep including F.R.P. Cover with frame       600x450 mm dimensions ( capable to bear 20 T Load ).         170       With FPS bricks       Each       4	Inside s 600x45	size 90 x 80 cm and 60 cm deep including F.R.P. Cover with frame 50 mm dimensions ( capable to bear 20 T Load ).	Each		
			Each	4	+

171	Excavating trenches of required width for pipe, cables etc including excavation for sockets & dressing of sides, ramming of bottoms, depth upto 1.5m including getting out the excavated soil & then returning the				
171	soil as required, in layers not exceeding 20 cm in depth including consolidating each deposited layer by ramming, watering etc and disposing of surplus excavated soil as directed, within lead of 50m.				
172	All kinds of soil				
173	Pipes, cables etc exceeding 80 mm dia but not exceeding 300 mm dia	RM	688		
174	Providing and constructing Rain water Harvesting Pit of 4000 dia. x 3000 mm size depth (internal) in overall size with inlet & outlet connection with Upto 1500mm from ground level Ist class brick 230 mm thick in cement mortar 1:4 (1 cement: 4 coarse sand) inside and outside 12 mm thick plaster with cement mortar 1:3 (1 cement : 3 coarse sand) with a floating coat of neat cement on inside surface, After 1500mm depth 500 mm thicksand bed; then 500mm thick gravel and 500mm thick boulders. C.I (heavy duty) manhole cover 560 mm (weight not less than 208 kg) including necessary excavation backing filling, disposal of surplus earth, Providing and fixing of C.I manhole steps complete as per standard design.				
175	Constructing Rain Water Harvesting Pits.	ltem	1		
176	350mm diameter boring with 150mm dia, upvc slotted pipes located centrally in 350mm diameter bore filled with boulder.	Meter	60		
177	Providing and laying UPVC back flow preventor with flanges generally as specified complete				
178	200 nominal bore	Each	1		
179	Providing and fixing 210mm dia. UPVC pipes (6 Kg/sqcm) including all fittings, excavation and back filling for connecting over flow from rain water harvesting pits to external network.	RM	30		
180	Constructing masonry valve Chamber 1000 x 1000 x1000 mm, inside with 75 class designation brick work in cement mortar 1:5 (1cement: 5 fine sand) for sluice valve/butter fly valve, with C.I. Surface box 100x100x75 mm (inside) with hinged cover fixed in cement concrete slab 1:2:4 mix (1cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) 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.				
181	With F.P.S. bricks	Each	1		
182	Making Storm connection with municipal line including approvals/ liasioning, excavtion & back filling, cutting and making good of existing municiapl line & approval from Pollution Control Board etc. complete (Payment by Client)	ltem	1		
183	Constructing brick masonry covered open drain with bricks of class designation 75 in cement mortar 1:5 (1 cement : 5 fine sand) & RCC culvertincluding precast RCC horizontal grating with frame complete as per standard design: Earth work in excavation by mechanical means(Hydraulic excavator)/				
184	manual means in foundation trenches or drains(not exceeding 1.5m in width or 10 sqm on plan) including dressing of sides and ramming of bottoms, lift up to 1.5m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50m. eover areas (exceeding 30 cm in depth, 1.5m in widths as well as 10 sqm on plan) including disposalof excavated earth, lead upto 50m and lift upto 1.5, disposed earth to be levelled and neatly dressed.				
185	All kinds of soil	Cum	283		
186	Providing and laying in position cement concrete of specified grade including the cost of centring and shuttering - All work upto plinth level:				
187	1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size)	Cum	38		
188	Brick work with F.P.S. bricks of class designation 75 in foundation and				
189	plinth in: Cement mortor 1:4 (1 cement : 4 fine sand)	Cum	60		
.07		Juil	00	1	
				1	1

reinforcement- all work upto plinth level 1:2:4 (1 cement: 2 coarse sand: 4 graded stone aggregate 20 mm				
nominal size)	Cum	7		
15 mm cement plaster 1:3 (1 cement:3 coarse sand) finished with a				
floating coat of neat cement on the rough side of single or half brick wall	Sqm	425		
Precast grating for open drains of 90mm thick (of Size : 900x450x90mm).	Nos	400		
WATER SUPPLY & DRAINAGE PUMPS				
Raw Water Treatment Feed Pump set				
Supplying, installing, testing & commissioning of horizontal / vertical centrifugal filter feed water pumps CI head & Base, SS-304 impeller along with motor, pressure guage with isolation cock, isolation valve,				
NRV on delivery line, isolation valve, stainer Pumps shall be suitable for 415 ± 10% volts 3 phase 50 Hz A.C supply &				
shall be having the following requirement complete with foundation and associated civil works.				
Suction & Delivery Header - SS 304				
Control Valve On suction and Delivery - Ball Valve Only (No Butterfly Valve Accepted).				
Flow Prevention - Only Check Valve Suction & delivery header including all pipes, suction & delivery sides				
valves, NRV, Pressure gauges & accessories complete.				
Flow Rate         : 6.0 LPS (1 duty + 1 stand by)           Head         : 35 M				
Min. Motor HP : 6.5 H.P. (Each)	Set	1		
HYDRO-PNEUMATIC SYSTEM :-				
Supply, Installation, Testing And Commissioning Of Compact Self Contained Skid Mounted Hydropneumatic System As Follows:				
a. Vertical, In-Line, Multisage, centrifugal pumps with SS-304 casing and impeller and shaft, CI base & S.S suction-discharge casing coupled with				
TEFC efficiency class 1 motor, 2900 rpm, three phase (with mechanical seal)				
b. Skid mounted or wall mounted electrical control panel with microprocessor PID controller and frequency inverter integrated in a				
single enclouser with pressure sensor transmitter, minimum two lined LCD display, diodes to indicate pump ready, pump running and fault and				
capable to communicate with other controllers following MODBUS-RTU or BACNET Class-2 protocall through RS485 port. System should be				
capable to compensate for frictional losses at lower flows. All alarms should be displayed in the controller. System should be equiped with dry running protection				
Quantity : 1 No.				
c. Precharged diaphram pressure vessel with food grade membrane, charging connection, connected to outlet header with necessary flanges, gaskets, isolating valves, nuts/bolts etc complete.				
d. Set of accessories such as pressure guage, pressure transducers, inter connecting power and control cabling, MS base frame with epoxy &				
synthetic enamel paint, neoprane rubber pads( anti vibration) etc. complete				
e. GI suction and delivery header with flanges for inlet connection, common outlet header with flanges for outlet connections as required, and inter connecting piping with flexible connections, eccentric type				
reducers etc. all necessary indigenous accessories as required to complete the installation.				
Domestic hydropneumatic system as follows:				-
No. of pumps 3 (2 Working + 1 Standby) Water Flow Rate 9.0 LPS each				
Head 80 M	Set	1	+	+
Submersible pumps complete with non-clog type impeller, minimum solid handling capacity of $3.15$ mm, suitable for operation on $415 \pm 10$ V, 50	Jei	I		
Hz AC power supply, 2900 RPM. The pump shall be complete with guide wire for lifting and lowering of pump, Galvanized lifting chain, etc. as per				
specifications. The pump shall be complete with automatic built-up water				
level controller with necessary starter panel with length of control / power cable upto the panel.				
Two nos. of pump installed in one sump pit 1 working & 1 standby with automatic / manual operation as requireds.				

11       Head       1:0.0 Miles         21       Head       1:0.0 Miles         22       Set 02 pumps (1:duty -1 stand by)       Each       1         23       Set 02 pumps (1:duty -1 stand by)       Each       1         24       Set 02 pumps (1:duty -1 stand by)       Each       7         25       Set 02 pumps (1:duty -1 stand by)       Each       7         26       Datal Media Tile Transmissioning of pumps ontoxisting of indian       2         27       VATER TREATMENT PLANT       Each       7         28       Datal Media Tile Transmissioning of pumps ontoxisting of indian       2       2         27       data data filt filt filt filt filt filt filt filt				1	
31     Step 2 pumps (1/ub) + 1 sign 2b)     Each     1       Step 2, installation, Testing and Commissioning of pump controlors cum level controllary with level indications in IGG powder coated steel sheet     7       20     March TCARANEWT FLAW     2       21     Charge of mongon, handling, installation, testing & commissioning of Vencial FRP Dual Mada Filter tested to 7.0 Kg/sqcm consisting of Intel Control of Station annual markul markule markul					
Supply. Installation. Testing and Commissioning of pump controllers currents and parents controllers with level indicators in 160 powder costed steel sheet must parents curding the following.         Each         7           WATER TREATMENT FLANT		Fach	4		
Image         Each         7           VATES TREATMENT FLANT	.5 Set of 2 pumps (Touty +T stand by)	Each	1		
Image         Each         7           VATES TREATMENT FLANT					
metal pands including into following:		_			
25         MATER TREATMENT PLANT		Each	7		
Dual Media Filter         Supplying, storing, handling, installation, testing & commissioning of Vertical FPD built Media Filter tested to 7.0 Kg/spcm. consisting of Intial charge of media consisting (300mm bed depth of anthracio, filtering sand and supplyt media), with intotals and manual multipoly valve of 40           10         Supplying, storing, handling, installation, testing & commissioning of Working Pressure : (2.5 ± 1.5) MWC         Each         1           20         Activated Carbon Filter         Each         1           21         HANDLING AND INSTALLATION         Each         1           22         Activated Carbon Filter filter best of 0.7 0 Kg/spcm consisting of vertaical FPA Activated Carbon Filter         Supplying, storing, handling, installation, testing & commissioning of vertaical FPA Activated Carbon Filter           23         INIAD Carbon Filter         Each         1           24         Carbon Filter         Each         1           25         Supplying, storing, handling, installation, testing & commissioning of water after provide to the store of the testing & commissioning of Supplying, storing, handling, installation, testing & commissioning of supplying, storing, handling, installation, testing & commissioning of testing after steries of the testing after steries of testing after steries of testing after stesting after steri					
Supplying, storing, handling, installation, testing & commissioning of ventical FRP Solution (Laboration and manual multiport valve of 40 manual multiport valve) of 40         Image: Solution (Laboration and manual multiport valve of 40 model)           Model         Supplying, storing, handling, installation, testing & commissioning of ventical Prevailability (Laboration and manual multiport valve of 40 model)         Image: Solution (Laboration and Laboration and	5 WATER TREATMENT PLANT				
Supplying, storing, handling, installation, testing & commissioning of vertical FRP Solution (additional and manual multiport value of 40 media consisting (300mm bed depth of anthracies, filtering sand and support media), with fortable and manual multiport value of 40 media, may is 61 LPS           Marking, Testing, Testi					
Supplying, storing, handling, installation, testing & commissioning of ventical FRP Solution (Laboration and manual multiport valve of 40 manual multiport valve) of 40         Image: Solution (Laboration and manual multiport valve of 40 manual multiport valve) of 40           Model, Samay: 6.0 LPS         Image: Solution (Laboration and manual multiport valve) of 40         Image: Solution (Laboration and manual multiport valve) of 40           Model, Depty         Each         Image: Solution (Laboration and manual multiport valve) of 40           Model, Depty         Each         Image: Solution (Laboration and manual multiport valve) of 40           Model, Depty         Each         Image: Solution (Laboration and manual multiport valve) of 40           Model, Depty         Each         Image: Solution (Laboration and manual manual multiport valve) of 40           Model, Depty, Solution, handling, installation, testing & commissioning of ventical response (Laboration and manual ma	6 Dual Media Filter				
Vertical FRP Dual Media Filter tested to 7.0 Kg/sqcm consisting of intal charge of media consisting (300mm biol depth of natracele, filtering sand and support media), with frontals and manual multiport valve of 40           80         Bapacity : 60 LPS           90 Vorting Presents: (2.5 ± 1.5)/MWC         Each           1         Each           2         Applicity : 60 LPS           90 Vorting Presents: (2.5 ± 1.5)/MWC         Each           2         Activated Carbon Filter           2         Activated Carbon Filter           3         Activated Carbon Filter           3         Activated Carbon Filter           4         Instit Arbage (300mm bid depth of activated carbon of locine value 300-400 and support media), with frontals and manual multiport values (300mb depth of activated carbon of locine value 300-400 and support media), with frontals and manual multiport values (300mb depth depth activated carbon of locine value 300-400 and support media), with frontals and manual multiport values (300mb depth activated carbon of locine value 300-400 and support media), with frontals and manual multiport values (300mb depth activated carbon of locine value 300-400 and support media).           4         Applying, storing, handling, installation, testing & commissioning of Vertical FRP Stortenet sets of 10 X Gk/spcm consisting of intal charge of the site with mild steel frontals and manual multiport value of 40 NB.           4         Applying, storing, handling, installation, testing & commissioning of Vertical FRP Stortenet sets of 10 X Gk/spcm consisting of intal Supplying, st					
21       charge of media consisting (300mm bed depth of anthractie, filtering sand and support media), with frontals and manual multiport valve of 40 NB.					
sand support media), with frontals and manual multiport valve of 40					
NB.         Constraint           Gapacity: 60 UPS         Constraint           Working Pressure: (2.5 ± 1.5)MWC         Each           Activated Carbon Filter         Constraint           Activated Carbon Filter         Constraint           Activated Carbon Filter         Constraint           Capacity: Solving, handling, instillation, testing & commissioning of totic values Solving and the solvinetic carbon of totic values Solving of totic values Solving of totic values Solving of totic values Solving freesure: (2.5 ± 1.5)MWC           Capacity: Constraint Constraints         Each           Working Pressure: (2.5 ± 1.5)MWC         Constraints					
Bit Capacity : 6.0 LPS					
Working Pressure 1(2,5 ± 15)MWC         Each         1           MADLING AND INSTALLATION         Each         1           Activated Carbon Filter         Supplying Storing, handling, installation, testing & commissioning of Vertical FRP Activated Carbon Filter tested to 7.0 Kg/squre consisting of Initial charge of media consisting (000mm bed depth of activated carbon of lodine value 350-400 and support media), with frontals and manual multiport value of 40 MB.					
Burg Ly     Each     1       IANDLING AND INSTALLATION     Each     1       Activated Carbon Filter     Supplying, storing, handling, installation, testing & commissioning of Vertical RFX Activated Carbon Filter tested to 7.0 Kg/sqcm consisting of Initial charge of media consisting (900mm bed depth of activated carbon of Iodine value 850-400 and support media), with frontals and manual multipot value of 40 NB.     Image: Carbon Filter Step 10: 0 Kg/sqcm consisting of Iodine value 850-400 and support media), with frontals and manual multipot value of 40 NB.       Capacity: 60 LPS     Image: Carbon Filter Step 10: 0 Kg/sqcm consisting of Initial charge of Nord of verses I: FRP     Image: Carbon Filter Step 10: 0 Kg/sqcm consisting of Initial charge of Vortical FRP Softner rested to 7.0 Kg/sqcm consisting of Initial charge of Iorisin with mild seel frontals and manual multiport value of 40 NB. HDPE Eine tank of Softner rested to 7.0 Kg/sqcm consisting of Initial charge of Vortical FRP Softner rested to 7.0 Kg/sqcm consisting of Initial charge of Uorisin FRP Softner rested to 7.0 Kg/sqcm consisting of Initial charge of Uorisin FRP Softner rested to 7.0 Kg/sqcm consisting of Initial charge of Uorisin FRP Softner rested to 7.0 Kg/sqcm consisting of Initial charge of Uorisin FRP Softner rested to 7.0 Kg/sqcm consisting of Initial charge of Uorisin FRP Softner rested to 7.0 Kg/sqcm consisting of Initial charge of Uorisin Frequence (2.5 ± 1.5) Kg/cm <sup>2</sup> Image: Imag	8 Capacity : 6.0 LPS				
Bit SupPLY     Each     1       IANDLING AND INSTALLATION     Each     1       Activated Carbon Filter     Supplying, storing, handling, installation, testing & commissioning of Vertical FRP Activated Carbon Filter tested to 7.0 Kg/sqcm consisting of Intal charge of media consisting (900mm bed depth of activated carbon of Iodine values 50-400 and support media), with frontals and manual multiport value of A0 NB.       Capacity: 6.0 LPS     Each     1       Water Softener     Each     1       BupPLY     Each     1       Water Softener     1     1       SupPLY     Each     1       Water Softener     1     1       Water Softener     1     1 <t< td=""><td>9 Working Pressure : (2.5 ± 1.5)MWC</td><td></td><td></td><td></td><td></td></t<>	9 Working Pressure : (2.5 ± 1.5)MWC				
1     HANDLING AND INSTALLATION     Each     1       2     Activated Carbon Filter		Each	1		
Activated Carbon Filter         Image: Control of Carbon Filter States (Carbon State) of Carbon State (Carbon State) of Carbon State (Carbon Carbon State) of Carbon State (Carbon Carbon State) of Carbon State) of Carbon State (Carbon Carbon State) of Carbon State) of Carbon State (Carbon Carbon State) of Carbon State) of Carbon State (Carbon Carbon State) of Carbon State) of Carbon State (Carbon Carbon State) of Carbon State) of Carbon State (Carbon Carbon State) of Carbon State) of Carbon State (Carbon State) of Carbon S					
Supplying, storing, handling, installation, testing & commissioning of vertical FRA extrated Carbon of Irol rested to 70 Kg/sqcm consisting of Carbon Start (1997)           11 intal charge of media consisting (900mm bed depth of activated carbon of Irol results of use of 40 NB. <ul> <li>Capacity: I.G. 0.LPS</li> <li>Capacity: I.G. 0.LPS</li> <li>Capacity: I.G. 0.LPS</li> <li>Consisting of the consisting of More and the consisting the consisting of More and the consisting of More and the consisting of More and the consisting the consecting the consisting the consisting the consisting</li></ul>		Each	I		
Supplying, storing, handling, installation, testing & commissioning of vertical FRA extrated Carbon of Irol rested to 70 Kg/sqcm consisting of Carbon Start (1997)           11 intal charge of media consisting (900mm bed depth of activated carbon of Irol results of use of 40 NB. <ul> <li>Capacity: I.G. 0.LPS</li> <li>Capacity: I.G. 0.LPS</li> <li>Capacity: I.G. 0.LPS</li> <li>Consisting of the consisting of More and the consisting the consisting of More and the consisting of More and the consisting of More and the consisting the consecting the consisting the consisting the consisting</li></ul>					
Vertical FRP. Activated Carbon Filter tested to 7.0 Kg/sqcm consisting of Initial charge of media consisting (900m bed depth of activated carbon of lodine value 350-400 and support media), with frontals and manual multiport value of 40 NB.           Capacity: 6.0 LPS					
31       intic charge of media consisting (900mm bed depth of activated carbon of lodine value 350-400 and support media), with frontals and manual multiport value of 40 NB. <ul> <li>Capacity: 60 LPS</li> <li>Constraints</li> <li>Constraints</li> <li>Constraints</li> <li>Capacity: 60 LPS</li> <li>Constraints</li> <li>Con</li></ul>	Supplying, storing, handling, installation, testing & commissioning of				
of lodine value 350-400 and support medial, with frontals and manual multiport value of 40 NB. <ul> <li>Capacity: 6.0 LPS</li> <li>Working Pressure: (2.5 a.1.5)/W/C</li> <li>Morking Pressure: (2.5 a.1.5)/W/C</li> <li>SUPPLY</li> <li>Each</li> <li>I</li> </ul> 19         Vater Softener <ul> <li>Supplying, storing, handling, installation, testing &amp; commissioning of Venical FRP Softener tested to 7.0 Kg/sqcm consisting of initial charge of Iorsin with mid steel frontals and manual multiport valve of 40 NB.</li> <li>HANDLING AND INSTALLATION</li> <li>Each</li> <li>Capacity: 6.0 LPS</li> <li>Working Pressure: 1.2 f.a.1.5) Kg/cm<sup>2</sup></li> <li>MORDLING AND INSTALLATION</li> <li>Each</li> <li>Character, Solution control valves set, interconnecting piping and valves as per specification. (or 1.2 ph)</li> <li>Chemical feed pump daphysing types with a rated capacity of 12 Litres. per hour against a pressure ortifol valves set, interconnecting piping and valves as per specification. (or 1.2 ph)</li> <li>Chemical feed pump daphysing type with a rated capacity of 12 Litres. per hour against a pressure of 75 ps, the capacity shall be adjustable throughout 15 to 100 % of rating. Pump motor shall be fractional horse pup (1/12 or 1/8 H.P) suitable for single phase 230 V, 50 H.2. AC supply.</li> <li>SupPLY</li> <li>Ea</li></ul>					
of lodine value 350-400 and support medial, with frontals and manual multiport value of 40 NB. <ul> <li>Capacity: 6.0 LPS</li> <li>Working Pressure: (2.5 a.1.5)/W/C</li> <li>Morking Pressure: (2.5 a.1.5)/W/C</li> <li>SUPPLY</li> <li>Each</li> <li>I</li> </ul> 19         Vater Softener <ul> <li>Supplying, storing, handling, installation, testing &amp; commissioning of Venical FRP Softener tested to 7.0 Kg/sqcm consisting of initial charge of Iorsin with mid steel frontals and manual multiport valve of 40 NB.</li> <li>HANDLING AND INSTALLATION</li> <li>Each</li> <li>Capacity: 6.0 LPS</li> <li>Working Pressure: 1.2 f.a.1.5) Kg/cm<sup>2</sup></li> <li>MORDLING AND INSTALLATION</li> <li>Each</li> <li>Character, Solution control valves set, interconnecting piping and valves as per specification. (or 1.2 ph)</li> <li>Chemical feed pump daphysing types with a rated capacity of 12 Litres. per hour against a pressure ortifol valves set, interconnecting piping and valves as per specification. (or 1.2 ph)</li> <li>Chemical feed pump daphysing type with a rated capacity of 12 Litres. per hour against a pressure of 75 ps, the capacity shall be adjustable throughout 15 to 100 % of rating. Pump motor shall be fractional horse pup (1/12 or 1/8 H.P) suitable for single phase 230 V, 50 H.2. AC supply.</li> <li>SupPLY</li> <li>Ea</li></ul>					
multiport valve of 40 NB.					
41       Capacity: 6.0 LPS					
5 Working Pressure : (2.5 ± 1.5)MWC between the second sec				1	1
MCC of Vessel : FRP         Each         I           SUPPLY         Each         1           Water Softener         Supplying, storing, handling, installation, testing & commissioning of Vencial FRP Softener tested to 7.0 Kg/sqcm consisting of initial charge of the store tested to 7.0 Kg/sqcm consisting of initial charge of the store tested to 7.0 Kg/sqcm consisting of initial charge of the store tested to 7.0 Kg/sqcm consisting of initial charge of the store tested to 7.0 Kg/sqcm consisting of initial charge of the store tested to 7.0 Kg/sqcm consisting of initial charge of the store tested to 7.0 Kg/sqcm consisting of initial charge of the store tested to 7.0 Kg/sqcm consisting of initial charge of the store tested to 7.0 Kg/sqcm consisting of initial charge of the store tested to 7.0 Kg/sqcm consisting of initial charge of the store tested to 7.0 Kg/sqcm consisting of initial charge of the store tested to 7.0 Kg/sqcm consisting of initial charge of the store tested to 7.0 Kg/sqcm consisting of initial charge of the store tested to 7.0 Kg/sqcm consisting of initial charge of the store test in the store test is the store test in the store test is the				-	
Picture     Each     1       8     HANDLING AND INSTALLATION     Each     1       9     Water Softener     Supplying, storing, handling, installation, testing & commissioning of Vertical FRP Softener tested to 7.0 Kg/sqcm consisting of intial charge of resin with mild steel fontals and manual multiport valve of 40 NB . HDPE Brine tank of min. 200 Liters complete with brine ejector and brine valve.				_	
HANDLING AND INSTALLATION     Each     1       Water Softener     Supplying, storing, handling, installation, testing & commissioning of Vertical FRP Softener tested to 7.0 Kg/sqcm consisting of initial charge of the softener tested to 7.0 Kg/sqcm consisting of initial charge of the softener tested to 7.0 Kg/sqcm consisting of initial charge of the softener tested to 7.0 Kg/sqcm consisting of initial charge of the softener softener tested to 7.0 Kg/sqcm consisting of initial charge of the softener s					
Water Softener	7 SUPPLY	Each	1		
99       Water Softener         90       Water Softener         91       Water Softener         92       Water Softener         93       Water Softener         94       Water Softener         95       Water Softener         96       Capacity : 6:0 LPS         97       Each         98       SUPPLY         99       SUPPLY         90       Supplying deciperation control valves set, interconnecting pliping and valves as strainer, solution control valves set, interconnecting pliping and valves as per specification. (0-12 ph)         106       HANDLING AND INSTALLATION         107       Each       1         108       Hour against a pressure of 75 psi, the capacity shall be adjustable         109       UPPLY       Each       1         101       HANDLING AND INSTALLATION       Each       1         101       HANDLING AND INSTAL	8 HANDLING AND INSTALLATION	Each	1		
Supplying. storing., handling., installation, testing & commissioning of Vertical FRP Softner tested to 7.0 Kg/scm consisting of initial charge of resin with mild steel frontals and manual multiport valve of 40 NB . HDPE Brine tank of min. 200 Liters complete with brine ejector and brine valve.         ICapacity : 6.0 LPS					
Supplying, storing, handling, installation, testing & commissioning of Vertical FRP Softner tested to 7.0 Kg/some consisting of initial charge of the tank of min. 200 Liters complete with brine ejector and brine valve.         Image: Complete with brine ejector and brine valve.       Image: Complete with brine ejector and brine valve.         Image: Complete with brine ejector and brine valve.       Image: Complete with brine ejector and brine valve.         Image: Complete with brine ejector and brine valve.       Image: Complete with brine ejector and brine valve.         Image: Complete with brine ejector and brine valve.       Image: Complete with brine ejector and brine valve.         Image: Complete with brine ejector and brine valve.       Image: Complete with brine ejector and brine valve.         Image: Complete with brine ejector and brine valve.       Image: Complete with brine ejector and brine valve.         Image: Complete with brine ejector and brine valve.       Image: Complete with brine ejector and brine valve.         Image: Complete with subscription of the valves set interconnecting piping and valves as per specification. (0-12 (ph)       Image: Complete with a rated capacity of 12 Litres.         Image: Complete with a pressure of 75 psi, the capacity shall be factional horse power (1/12 or 1/8 HP) suitable for single phase 230 V, 50 Hz. AC       Image: Complete with succino assembly, shut-off valves, interconnecting piping valves and cover. Capacity 50 Litrs. (0-6 (ph)         Image: Complete with succino assembly, shut-off valves, interconnecting piping valves and cover. Capacity 50 Litrs. (0-6 (ph)       Image: C	Water Softener				
Vertical FRP Softener tested to 7.0 Kg/sqcm consisting of initial charge of lesin with mid steel fortasis and manual multiport valve of 40 NB. HDPE Brine tank of min. 200 Liters complete with brine ejector and brine valve.         II       Capacity: 6.0 LPS       Image: Softener tested to 7.0 Kg/sqcm consisting of initial charge of the softener soft					
10       esin with mid steel fontals and manual multiport valve of 40 NB. HDPE         Brine tank of min. 200 Liters complete with brine ejector and brine valve.					
Brine tank of min. 200 Liters complete with brine ejector and brine valve.					
I       Capacity : 6 0 LPS         20       Working Pressure : (2.5 ± 1.5) Kg/cm <sup>2</sup> 31       MOC of vessel : FRP         41       SUPPLY         42       SUPPLY         43       SUPPLY         44       Fach         45       HANDLING AND INSTALLATION         46       ALUM DOSING EQUIPMENT         High density opaque polyethylene vessel having 50 Lt. capacity complete         with brass strainer, solution control valves set, interconnecting piping and valves as per specification. (0-12 (ph)         Chemical feed pump diaphragm type with a rated capacity of 12 Litres. per hour against a pressure of 75 psi, the capacity shall be adjustable         16       throughout 15 to 100 % of rating. Pump motor shall be fractional horse power (1/12 or 1/8 H.P) suitable for single phase 230 V, 50 Hz. AC supply.         10       HANDLING AND INSTALLATION       Each         11       CHLORINATOR         Polyethylene chlorinator cylindrical in shape constructed of high density opaque polyedhylene complete with suction assembly, shut-off valves, interconnecting piping valves and cover. Capacity 50 Ltrs. (0-6 lph)         17       Chemical feed pump shall be diaphragm type with a rated capacity of 5         18       thrs. per hour against a pressure of 75 ps i, the capacity shall be adjustable         19       SupPLY       Each         10       HANDLI	0 resin with mild steel frontals and manual multiport valve of 40 NB . HDPE				
22       Working Pressure : (2.5 ± 1.5) Kg/cm <sup>2</sup> Image: Construct of the second	Brine tank of min. 200 Liters complete with brine ejector and brine valve.				
22       Working Pressure : (2.5 ± 1.5) Kg/cm <sup>2</sup> Image: Construct of the second					
22       Working Pressure : (2.5 ± 1.5) Kg/cm <sup>2</sup> Image: Construct of the second	1 Capacity : 6.0 LPS				
33       MCC of vessel : FRP       Each       1         44       SUPPLY       Each       1         544       ALUM DOSING EQUIPMENT       Each       1         66       ALUM DOSING EQUIPMENT       Image: Construct on the state of the state o					
Handbill     Each     1       HANDLING AND INSTALLATION     Each     1       HANDLING AND INSTALLATION     Each     1       High density opaque polyethylene vessel having 50 Lt. capacity complete with brass strainer, solution control valves set, interconnecting piping and valves as per specification. (0-12 lph)     Image: Character Strainer, solution control valves set, interconnecting piping and valves as per specification. (0-12 lph)       Chemical feed pump diphragm type with a rated capacity of 12 Litres. per hour against a pressure of 75 psi, the capacity shall be adjustable throughout 15 to 100 % of rating. Pump motor shall be fractional horse power (1/12 or 1/8 H.P) suitable for single phase 230 V, 50 Hz. AC supply.     Each     1       9     SUPPLY     Each     1       11     Each     1       12     CHLORINATOR     Each     1       14     ANDLING AND INSTALLATION     Each     1       15     Chemical feed pump divers and cover. Capacity 50 Ltrs. (0-6 lph)     Image: Chemical feed pump shall be diaphragm type with a rated capacity of 5 ltrs. per hour against a pressure of 75 psi, the capacity shall be ractional horse power (1/12 or 1/8 H.P) suitable for single phase 230 V, 50 Hz. AC supply.     Each     1       54     SUPPLY     Each     1       54     HANDLING AND INSTALLATION     Each     1       554     SUPPLY     Each     1       554     SUPPLY     Each     1 <td< td=""><td></td><td></td><td></td><td></td><td></td></td<>					
HANDLING AND INSTALLATION       Each       1         ALUM DOSING EQUIPMENT					
ALUM DOSING EQUIPMENT       Image: Construct of the image: Con		Each	1		
High density opaque polyethylene vessel having 50 Lt. capacity complete         With brass strainer, solution control valves set, interconnecting piping and         valves as per specification. (0-12 lph)         Chemical feed pump diaphragm type with a rated capacity of 12 Litres.         per hour against a pressure of 75 psi, the capacity shall be adjustable         throughout 15 to 100 % of rating. Pump motor shall be fractional horse         power (1/12 or 1/8 H.P) suitable for single phase 230 V, 50 Hz. AC         supply.       Each 1         HANDLING AND INSTALLATION       Each 1         CHLORINATOR       Each 1         Polyethylene chlorinator cylindrical in shape constructed of high density       opaque polyethylene complete with suction assembly, shut-off valves, interconnecting piping valves and cover. Capacity 50 Lits. (0-6 lph)         Chemical feed pump shall be diaphragm type with a rated capacity of 5       trast pressure of 75 psi, the capacity shall be         salustable throughout 15 to 100 % of rating. Pump motor shall be       trast pressure of 75 psi, the capacity shall be         salustable throughout 15 to 100 % of rating. Pump motor shall be       1         salustable throughout 15 to 100 % of rating. Pump motor shall be       1         salustable throughout 15 to 100 % of rating. Pump motor shall be       1         salustable throughout 15 to 100 % of rating. Pump motor shall be       1         salustable throughout 15 to 100 % of rat	5 HANDLING AND INSTALLATION	Each	1		
High density opaque polyethylene vessel having 50 Lt. capacity complete         With brass strainer, solution control valves set, interconnecting piping and         valves as per specification. (0-12 lph)         Chemical feed pump diaphragm type with a rated capacity of 12 Litres.         per hour against a pressure of 75 psi, the capacity shall be adjustable         throughout 15 to 100 % of rating. Pump motor shall be fractional horse         power (1/12 or 1/8 H.P) suitable for single phase 230 V, 50 Hz. AC         supply.       Each 1         HANDLING AND INSTALLATION       Each 1         CHLORINATOR       Each 1         Polyethylene chlorinator cylindrical in shape constructed of high density       opaque polyethylene complete with suction assembly, shut-off valves, interconnecting piping valves and cover. Capacity 50 Lits. (0-6 lph)         Chemical feed pump shall be diaphragm type with a rated capacity of 5       trast pressure of 75 psi, the capacity shall be         salustable throughout 15 to 100 % of rating. Pump motor shall be       trast pressure of 75 psi, the capacity shall be         salustable throughout 15 to 100 % of rating. Pump motor shall be       1         salustable throughout 15 to 100 % of rating. Pump motor shall be       1         salustable throughout 15 to 100 % of rating. Pump motor shall be       1         salustable throughout 15 to 100 % of rating. Pump motor shall be       1         salustable throughout 15 to 100 % of rat					
High density opaque polyethylene vessel having 50 Lt. capacity complete         With brass strainer, solution control valves set, interconnecting piping and         valves as per specification. (0-12 lph)         Chemical feed pump diaphragm type with a rated capacity of 12 Litres.         per hour against a pressure of 75 psi, the capacity shall be adjustable         throughout 15 to 100 % of rating. Pump motor shall be fractional horse         power (1/12 or 1/8 H.P) suitable for single phase 230 V, 50 Hz. AC         supply.       Each 1         HANDLING AND INSTALLATION       Each 1         CHLORINATOR       Each 1         Polyethylene chlorinator cylindrical in shape constructed of high density       opaque polyethylene complete with suction assembly, shut-off valves, interconnecting piping valves and cover. Capacity 50 Lits. (0-6 lph)         Chemical feed pump shall be diaphragm type with a rated capacity of 5       trast pressure of 75 psi, the capacity shall be         salustable throughout 15 to 100 % of rating. Pump motor shall be       trast pressure of 75 psi, the capacity shall be         salustable throughout 15 to 100 % of rating. Pump motor shall be       1         salustable throughout 15 to 100 % of rating. Pump motor shall be       1         salustable throughout 15 to 100 % of rating. Pump motor shall be       1         salustable throughout 15 to 100 % of rating. Pump motor shall be       1         salustable throughout 15 to 100 % of rat	6 ALUM DOSING EQUIPMENT				
17       with brass strainer, solution control valves set, interconnecting piping and valves as per specification. (0-12 lph)					
valves as per specification. (0-12 lph)         Chemical feed pump diaphragm type with a rated capacity of 12 Litres.         per hour against a pressure of 75 psi, the capacity shall be adjustable         HANDLING AND INSTALLATION       Each         HANDLING explore complete with suction assembly, shut-off valves,         interconnecting piping valves and cover. Capacity 50 Ltrs. (0-6 lph)         Chemical feed pump shall be diaphragm type with a rated capacity of 5         Itrs, per hour against a pressure of 75 psi, the capacity shall be         disustable for conducting a PPM hardness test on effluent water         samples drawn from sample cock installed on softeners.         Each       1         Chemical feed pump shall be displayed on softeners.         Each       1         Chemical feed pump shall be diaphragm type with a rated capacity of 5         Itrs, per hour against a pressure of 75 psi, the capacity shall be         fractional horse power (1/12 or 1/8 H.P) suitable for single phase 230 V,         50 Hz. AC supply.         Each       1         Manuel Advector and the state on softeners.         Each       1         Manuel Advector and the state on softeners.         Each       1         SUPPLY       Each         Test kit shall for conducting a PPM hardness test on effluent water         samp					
Chemical feed pump diaphragm type with a rated capacity of 12 Litres. per hour against a pressure of 75 psi, the capacity shall be adjustable throughout 15 to 100 % of rating. Pump motor shall be fractional horse power (1/12 or 1/8 H.P) suitable for single phase 230 V, 50 Hz. AC supply.         18       UPPLY       Each       1         10       HANDLING AND INSTALLATION       Each       1         11       CHLORINATOR       Image: constructed of high density opaque polyethylene complete with suction assembly, shut-off valves, interconnecting piping valves and cover. Capacity 50 Ltrs. (0-6 lph)       Image: constructed of bigh density opaque polyethylene shall be diaphragm type with a rated capacity of 5 ltrs. per hour against a pressure of 75 psi, the capacity shall be adjustable throughout 15 to 100 % of rating. Pump motor shall be fractional horse power (1/12 or 1/8 H.P) suitable for single phase 230 V, 50 Hz. AC supply.       Image: constructed of high density opaque polyethylene complete with suction assembly, shut-off valves, interconnecting piping valves and cover. Capacity 50 Ltrs. (0-6 lph)         10       Chemical feed pump shall be diaphragm type with a rated capacity of 5 ltrs. per hour against a pressure of 75 psi, the capacity shall be factional horse power (1/12 or 1/8 H.P) suitable for single phase 230 V, 50 Hz. AC supply.       Image: constructed on soften single phase 230 V, 50 Hz. AC supply.         13       SUPPLY       Each       1         14       Image: constructed on soften ers.       Image: constructed on soften ers.         15       HANDLING AND INSTAL	with brass strainer, solution control valves set, interconnecting piping and				
per hour against a pressure of 75 psi, the capacity shall be adjustable         18       throughout 15 to 100 % of rating. Pump motor shall be fractional horse         power (1/12 or 1/8 H.P) suitable for single phase 230 V, 50 Hz. AC         supply.       Each         19       SUPPLY         10       HANDLING AND INSTALLATION         11       CHLORINATOR         12       Opyethylene chlorinator cylindrical in shape constructed of high density         opaque polyethylene complete with suction assembly, shut-off valves,         interconnecting piping valves and cover. Capacity 50 Ltrs. (0-6 lph)         Chemical feed pump shall be diaphragm type with a rated capacity of 5         Itrs. per hour against a pressure of 75 psi, the capacity shall be         30       adjustable throughout 15 to 100 % of rating. Pump motor shall be         18       digustable throughout 15 to 100 % of rating. Pump motor shall be         19       SUPPLY         10       Kac Supply.         11       Each         12       SUPPLY         13       adjustable throughout 15 to 100 % of rating. Pump motor shall be         14       SUPPLY         15       HANDLING AND INSTALLATION         16       Test kit shall for conducting a PPM hardness test on effluent water         17       SUPPLY <td< td=""><td></td><td></td><td></td><td></td><td></td></td<>					
18       throughout 15 to 100 % of rating. Pump motor shall be fractional horse power (1/12 or 1/8 H.P) suitable for single phase 230 V, 50 Hz. AC supply.       Each       1         19       SUPPLY       Each       1         10       HANDLING AND INSTALLATION       Each       1         11       CHLORINATOR       Image: Complete with suction assembly, shut-off valves, interconnecting piping valves and cover. Capacity 50 Ltrs. (0-6 lph)       Image: Complete with suction assembly, shut-off valves, interconnecting piping valves and cover. Capacity 50 Ltrs. (0-6 lph)         12       Chemical feed pump shall be diaphragm type with a rated capacity of 5 ltrs. per hour against a pressure of 75 psi, the capacity shall be adjustable throughout 15 to 100 % of rating. Pump motor shall be fractional horse power (1/12 or 1/8 H.P) suitable for single phase 230 V, 50 Hz. AC supply.       Each       1         13       SUPPLY       Each       1       Image: Complete with suction assembly. Supply: Supply.         14       SUPPLY       Each       1       Image: Complete with supply.         14       HANDLING AND INSTALLATION       Each       1       Image: Complete with supply.         17       SUPPLY       Each       1       Image: Complete with supply.       Image: Complete with suply.       Image: Complete with supply.					
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supply.       Each       1         99       SUPPLY       Each       1         100       HANDLING AND INSTALLATION       Each       1         11       CHLORINATOR       Polyethylene chlorinator cylindrical in shape constructed of high density opaque polyethylene complete with suction assembly, shut-off valves, interconnecting piping valves and cover. Capacity 50 Ltrs. (0-6 lph)       Image: Chemical feed pump shall be diaphragm type with a rated capacity of 5 ltrs. per hour against a pressure of 75 psi, the capacity shall be adjustable throughout 15 to 100 % of rating. Pump motor shall be fractional horse power (1/12 or 1/8 H.P) suitable for single phase 230 V, 50 Hz. AC supply.       Each       1         12       Test kit shall for conducting a PPM hardness test on effluent water samples drawn from sample cock installed on softeners.       SUPPLY       Each       1         13       ELECTRICAL WORKS FOR PLUMBING INSTALLATION WORKS       Each       1       1         14       Each       1       1       1         15       UDING AND INSTALLATION       Each       1       1         16       SUPPLY       Each       1       1         17       Ext kit shall for conducting a PPM hardness test on effluent water samples drawn from sample cock installed on softeners.       1       1         16       Each       1       1       1         16       Each <td></td> <td></td> <td></td> <td></td> <td></td>					
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22       interconnecting piping valves and cover. Capacity 50 Ltrs. (0-6 lph)         Chemical feed pump shall be diaphragm type with a rated capacity of 5         Itrs. per hour against a pressure of 75 psi, the capacity shall be         adjustable throughout 15 to 100 % of rating. Pump motor shall be         fractional horse power (1/12 or 1/8 H.P) suitable for single phase 230 V,         50 Hz. AC supply.         Each       1         54       SUPPLY         Each       1         55       HANDLING AND INSTALLATION         Fest kit shall for conducting a PPM hardness test on effluent water         samples drawn from sample cock installed on softeners.         SUPPLY       Each         64         7       SUPPLY         Each       1         67       SUPPLY         Each       1         68       HANDLING AND INSTALLATION         69       Each       1         60       CUBICAL PANEL BOARD - PLUMBING					
interconnecting piping valves and cover. Capacity 50 Ltrs. (0-6 ipn)	Polyethylene chlorinator cylindrical in shape constructed of high density				
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33       adjustable throughout 15 to 100 % of rating. Pump motor shall be fractional horse power (1/12 or 1/8 H.P) suitable for single phase 230 V, 50 Hz. AC supply.       Each       1         44       SUPPLY       Each       1         55       HANDLING AND INSTALLATION       Each       1         66       Test kit shall for conducting a PPM hardness test on effluent water samples drawn from sample cock installed on softeners.       SUPPLY       Each       1         77       SUPPLY       Each       1       1         8       HANDLING AND INSTALLATION       Each       1       1         9       ELECTRICAL WORKS FOR PLUMBING INSTALLATION WORKS       Each       1       1         00       CUBICAL PANEL BOARD - PLUMBING       INSTALLATION WORKS       Image: Cubic	Polyethylene chlorinator cylindrical in shape constructed of high density opaque polyethylene complete with suction assembly, shut-off valves, interconnecting piping valves and cover. Capacity 50 Ltrs. (0-6 lph)				
fractional horse power (1/12 or 1/8 H.P) suitable for single phase 230 V,       50 Hz. AC supply.         4       SUPPLY       Each       1         5       HANDLING AND INSTALLATION       Each       1         6       samples drawn from sample cock installed on softeners.	Polyethylene chlorinator cylindrical in shape constructed of high density opaque polyethylene complete with suction assembly, shut-off valves, interconnecting piping valves and cover. Capacity 50 Ltrs. (0-6 lph) Chemical feed pump shall be diaphragm type with a rated capacity of 5				
50 Hz. AC supply.     Each     1       4     SUPPLY     Each     1       5     HANDLING AND INSTALLATION     Each     1       6     Test kit shall for conducting a PPM hardness test on effluent water samples drawn from sample cock installed on softeners.	Polyethylene chlorinator cylindrical in shape constructed of high density opaque polyethylene complete with suction assembly, shut-off valves, interconnecting piping valves and cover. Capacity 50 Ltrs. (0-6 lph) Chemical feed pump shall be diaphragm type with a rated capacity of 5 ltrs. per hour against a pressure of 75 psi, the capacity shall be				
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HANDLING AND INSTALLATION     Each     1       6     Test kit shall for conducting a PPM hardness test on effluent water samples drawn from sample cock installed on softeners.        77     SUPPLY     Each     1       8     HANDLING AND INSTALLATION     Each     1       9     ELECTRICAL WORKS FOR PLUMBING INSTALLATION WORKS         0     CUBICAL PANEL BOARD - PLUMBING	<ul> <li>Polyethylene chlorinator cylindrical in shape constructed of high density opaque polyethylene complete with suction assembly, shut-off valves, interconnecting piping valves and cover. Capacity 50 Ltrs. (0-6 lph)</li> <li>Chemical feed pump shall be diaphragm type with a rated capacity of 5 ltrs. per hour against a pressure of 75 psi, the capacity shall be adjustable throughout 15 to 100 % of rating. Pump motor shall be fractional horse power (1/12 or 1/8 H.P) suitable for single phase 230 V,</li> </ul>				
6     Test kit shall for conducting a PPM hardness test on effluent water samples drawn from sample cock installed on softeners.         7     SUPPLY     Each     1       8     HANDLING AND INSTALLATION     Each     1       9     ELECTRICAL WORKS FOR PLUMBING INSTALLATION WORKS         0     CUBICAL PANEL BOARD - PLUMBING	<ul> <li>Polyethylene chlorinator cylindrical in shape constructed of high density opaque polyethylene complete with suction assembly, shut-off valves, interconnecting piping valves and cover. Capacity 50 Ltrs. (0-6 lph)</li> <li>Chemical feed pump shall be diaphragm type with a rated capacity of 5 ltrs. per hour against a pressure of 75 psi, the capacity shall be adjustable throughout 15 to 100 % of rating. Pump motor shall be fractional horse power (1/12 or 1/8 H.P) suitable for single phase 230 V, 50 Hz. AC supply.</li> </ul>				
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0     CUBICAL PANEL BOARD - PLUMBING	<ul> <li>Polyethylene chlorinator cylindrical in shape constructed of high density opaque polyethylene complete with suction assembly, shut-off valves, interconnecting piping valves and cover. Capacity 50 Ltrs. (0-6 lph)</li> <li>Chemical feed pump shall be diaphragm type with a rated capacity of 5 ltrs. per hour against a pressure of 75 psi, the capacity shall be adjustable throughout 15 to 100 % of rating. Pump motor shall be fractional horse power (1/12 or 1/8 H.P) suitable for single phase 230 V, 50 Hz. AC supply.</li> <li>SUPPLY</li> <li>HANDLING AND INSTALLATION</li> <li>Test kit shall for conducting a PPM hardness test on effluent water samples drawn from sample cock installed on softeners.</li> <li>SUPPLY</li> <li>HANDLING AND INSTALLATION</li> </ul>	Each Each	1		
	<ul> <li>Polyethylene chlorinator cylindrical in shape constructed of high density opaque polyethylene complete with suction assembly, shut-off valves, interconnecting piping valves and cover. Capacity 50 Ltrs. (0-6 lph)</li> <li>Chemical feed pump shall be diaphragm type with a rated capacity of 5 ltrs. per hour against a pressure of 75 psi, the capacity shall be adjustable throughout 15 to 100 % of rating. Pump motor shall be fractional horse power (1/12 or 1/8 H.P) suitable for single phase 230 V, 50 Hz. AC supply.</li> <li>SUPPLY</li> <li>HANDLING AND INSTALLATION</li> <li>Test kit shall for conducting a PPM hardness test on effluent water samples drawn from sample cock installed on softeners.</li> <li>SUPPLY</li> <li>HANDLING AND INSTALLATION</li> </ul>	Each Each	1		
	<ul> <li>Polyethylene chlorinator cylindrical in shape constructed of high density opaque polyethylene complete with suction assembly, shut-off valves, interconnecting piping valves and cover. Capacity 50 Ltrs. (0-6 lph)</li> <li>Chemical feed pump shall be diaphragm type with a rated capacity of 5 ltrs. per hour against a pressure of 75 psi, the capacity shall be adjustable throughout 15 to 100 % of rating. Pump motor shall be fractional horse power (1/12 or 1/8 H.P) suitable for single phase 230 V, 50 Hz. AC supply.</li> <li>SUPPLY</li> <li>HANDLING AND INSTALLATION</li> <li>Test kit shall for conducting a PPM hardness test on effluent water samples drawn from sample cock installed on softeners.</li> <li>SUPPLY</li> <li>HANDLING AND INSTALLATION</li> </ul>	Each Each	1		
	<ul> <li>Polyethylene chlorinator cylindrical in shape constructed of high density opaque polyethylene complete with suction assembly, shut-off valves, interconnecting piping valves and cover. Capacity 50 Ltrs. (0-6 lph)</li> <li>Chemical feed pump shall be diaphragm type with a rated capacity of 5 ltrs. per hour against a pressure of 75 psi, the capacity shall be adjustable throughout 15 to 100 % of rating. Pump motor shall be fractional horse power (1/12 or 1/8 H.P) suitable for single phase 230 V, 50 Hz. AC supply.</li> <li>SUPPLY</li> <li>HANDLING AND INSTALLATION</li> <li>Test kit shall for conducting a PPM hardness test on effluent water samples drawn from sample cock installed on softeners.</li> <li>SUPPLY</li> <li>HANDLING AND INSTALLATION</li> <li>ELECTRICAL WORKS FOR PLUMBING INSTALLATION WORKS</li> </ul>	Each Each	1		
1 i) For 2 x 6.5 HP Filter Feed Pumps (1 duty + 1 stand by)	<ul> <li>Polyethylene chlorinator cylindrical in shape constructed of high density opaque polyethylene complete with suction assembly, shut-off valves, interconnecting piping valves and cover. Capacity 50 Ltrs. (0-6 lph)</li> <li>Chemical feed pump shall be diaphragm type with a rated capacity of 5 ltrs. per hour against a pressure of 75 psi, the capacity shall be adjustable throughout 15 to 100 % of rating. Pump motor shall be fractional horse power (1/12 or 1/8 H.P) suitable for single phase 230 V, 50 Hz. AC supply.</li> <li>SUPPLY</li> <li>HANDLING AND INSTALLATION</li> <li>Test kit shall for conducting a PPM hardness test on effluent water samples drawn from sample cock installed on softeners.</li> <li>SUPPLY</li> <li>HANDLING AND INSTALLATION</li> <li>ELECTRICAL WORKS FOR PLUMBING INSTALLATION WORKS</li> </ul>	Each Each	1		

	N E 0 04 E UD Treto-d Mistor Trestar Durran (4batter 4batter)			Т	
262	i) For 3 x 21.5 HP Treated Water Transfer Pumps (1 duty + 1 stand by)				
2/2	iii) For 2 x 2.0 HP Basement Waste Sump Pumps (1 Duty + 1 Stand by) -				
263	(only isolator) pump room				
264	iv) For 4 x 3.7 HP Bore well Pump (only isolator).				
	Supply, installation, testing and commissioning of Cubical type				
	sectionalised floor standing switch board of 31 MVA fault capacity at 415				
265	V complete with 3.5 strip, 160 A capacity Aluminium Bus - Bar Electrolytic				
	grade, cable alley, switchgears of following capacity & as per				
2//	specifications.				
266	INCOMER 100 A TP MCCB with heavy duty solid neutral link with (0-100A) ammeter				
0/7	with 3 CT and selector switch, (0 - 500 V) voltmeter with selector switch,				
267	phase indication light with protection fuse 01 Set				
2/0					
	OUTGOINGS For 2 Nos For 2 x 6.5 HP Filter Feed Pumps				
207	12 A TP MCB with 10 A DOL starter, overload relay, 96 mm (0-25A)				
270	ammeter with single CT, start / stop push buttons, on / off / trip indication				
270	lights with protection fuse, single phase preventer 01 set.				
271	For 3 x 21.5 HP Treated Water Transfer Pumps (H.S)				
271	40.0 A TP MCB with isolator				
273	For 2 x 2.0 HP Waste Water Transfer Pumps - pump room				
	25 A TP MCB with 10 A DOL starter, overload relay, 96 mm (0-25A)				
274	ammeter with single CT, start / stop push buttons, on / off / trip indication				
	lights with protection fuse, single phase preventer 01 set.				
	For 4 No 3.7 HP Borewell Pump				
276	32 A TP MCB with isolator - 2 Sets				
277	For supply, installation, testing & commissioning of plumbing control panel as per above details (with standrad items supplied by	Item	1		
211	Manufactures)	item	•		
	NOTE :				
	NOTE : i) All the drainage pumps shall be work cyclic process i.e. in first				
	NOTE : i) All the drainage pumps shall be work cyclic process i.e. in first operation duty pump work on duty and stand by pump duty pump work on				
	NOTE : i) All the drainage pumps shall be work cyclic process i.e. in first				
279	NOTE : i) All the drainage pumps shall be work cyclic process i.e. in first operation duty pump work on duty and stand by pump duty pump work on stand by and stand by pump work as duty pump.				
279	NOTE : i) All the drainage pumps shall be work cyclic process i.e. in first operation duty pump work on duty and stand by pump duty pump work on stand by and stand by pump work as duty pump. ii) The drainage Stand by pumps automatically work as drainage assist pump for Duty pump when level of water rises in drainage sump pumps				
279 280	NOTE : i) All the drainage pumps shall be work cyclic process i.e. in first operation duty pump work on duty and stand by pump duty pump work on stand by and stand by pump work as duty pump. ii) The drainage Stand by pumps automatically work as drainage assist pump for Duty pump when level of water rises in drainage sump pumps i.e. Both pumps can work at a time & operation shall be controlled with				
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279 280	NOTE :         i) All the drainage pumps shall be work cyclic process i.e. in first operation duty pump work on duty and stand by pump duty pump work on stand by and stand by pump work as duty pump.         ii) The drainage Stand by pumps automatically work as drainage assist pump for Duty pump when level of water rises in drainage sump pumps i.e. Both pumps can work at a time & operation shall be controlled with the help of level controllers and float switches.         POWER & CONTROL CABLING				
279 280 281	NOTE :         i) All the drainage pumps shall be work cyclic process i.e. in first operation duty pump work on duty and stand by pump duty pump work on stand by and stand by pump work as duty pump.         ii) The drainage Stand by pumps automatically work as drainage assist pump for Duty pump when level of water rises in drainage sump pumps i.e. Both pumps can work at a time & operation shall be controlled with the help of level controllers and float switches.         POWER & CONTROL CABLING         Supply, laying, testing and commissioning of power and control cabling,				
279 280 281 282	NOTE :         i) All the drainage pumps shall be work cyclic process i.e. in first operation duty pump work on duty and stand by pump duty pump work on stand by and stand by pump work as duty pump.         ii) The drainage Stand by pumps automatically work as drainage assist pump for Duty pump when level of water rises in drainage sump pumps i.e. Both pumps can work at a time & operation shall be controlled with the help of level controllers and float switches.         POWER & CONTROL CABLING         Supply, laying, testing and commissioning of power and control cabling, as per Standard specification including end termination as required.				
279 280 281	NOTE :         i) All the drainage pumps shall be work cyclic process i.e. in first operation duty pump work on duty and stand by pump duty pump work on stand by and stand by pump work as duty pump.         ii) The drainage Stand by pumps automatically work as drainage assist pump for Duty pump when level of water rises in drainage sump pumps i.e. Both pumps can work at a time & operation shall be controlled with the help of level controllers and float switches.         POWER & CONTROL CABLING         Supply, laying, testing and commissioning of power and control cabling,				
279 280 281 282 283 283 284	NOTE :         i) All the drainage pumps shall be work cyclic process i.e. in first operation duty pump work on duty and stand by pump duty pump work on stand by and stand by pump work as duty pump.         ii) The drainage Stand by pumps automatically work as drainage assist pump for Duty pump when level of water rises in drainage sump pumps i.e. Both pumps can work at a time & operation shall be controlled with the help of level controllers and float switches.         POWER & CONTROL CABLING         Supply, laying, testing and commissioning of power and control cabling, as per Standard specification including end termination as required.         Power cabling (XLPE) insulated and PVC sheathed, armoured, Aluminium Conductor of 1.1 KV grade on existing cable trays).         3C x 10 Sq. mm	RMt	28		
279 280 281 282 283 283 284	NOTE :         i) All the drainage pumps shall be work cyclic process i.e. in first operation duty pump work on duty and stand by pump duty pump work on stand by and stand by pump work as duty pump.         ii) The drainage Stand by pumps automatically work as drainage assist pump for Duty pump when level of water rises in drainage sump pumps i.e. Both pumps can work at a time & operation shall be controlled with the help of level controllers and float switches.         POWER & CONTROL CABLING         Supply, laying, testing and commissioning of power and control cabling, as per Standard specification including end termination as required.         Power cabling (XLPE) insulated and PVC sheathed, armoured, Aluminium Conductor of 1.1 KV grade on existing cable trays).	RMt RMT	28 35		
279 280 281 282 283 283 284	NOTE :         i) All the drainage pumps shall be work cyclic process i.e. in first operation duty pump work on duty and stand by pump duty pump work on stand by and stand by pump work as duty pump.         ii) The drainage Stand by pumps automatically work as drainage assist pump for Duty pump when level of water rises in drainage sump pumps i.e. Both pumps can work at a time & operation shall be controlled with the help of level controllers and float switches.         POWER & CONTROL CABLING         Supply, laying, testing and commissioning of power and control cabling, as per Standard specification including end termination as required.         Power cabling (XLPE) insulated and PVC sheathed, armoured, Aluminium Conductor of 1.1 KV grade on existing cable trays).         3C x 10 Sq. mm         3C x 6 Sq. mm				
279 280 281 282 283 283 284	NOTE :         i) All the drainage pumps shall be work cyclic process i.e. in first operation duty pump work on duty and stand by pump duty pump work on stand by and stand by pump work as duty pump.         ii) The drainage Stand by pumps automatically work as drainage assist pump for Duty pump when level of water rises in drainage sump pumps i.e. Both pumps can work at a time & operation shall be controlled with the help of level controllers and float switches.         POWER & CONTROL CABLING         Supply, laying, testing and commissioning of power and control cabling, as per Standard specification including end termination as required.         Power cabling (XLPE) insulated and PVC sheathed, armoured, Aluminium Conductor of 1.1 KV grade on existing cable trays).         3C x 10 Sq. mm         Control Cabling (PVC insulated and PVC sheathed, armoured, Copper				
279 280 281 282 283 284 285 286	NOTE :         i) All the drainage pumps shall be work cyclic process i.e. in first operation duty pump work on duty and stand by pump duty pump work on stand by and stand by pump work as duty pump.         ii) The drainage Stand by pumps automatically work as drainage assist pump for Duty pump when level of water rises in drainage sump pumps i.e. Both pumps can work at a time & operation shall be controlled with the help of level controllers and float switches.         POWER & CONTROL CABLING         Supply, laying, testing and commissioning of power and control cabling, as per Standard specification including end termination as required.         Power cabling (XLPE) insulated and PVC sheathed, armoured, Aluminium Conductor of 1.1 KV grade on existing cable trays).         3C x 10 Sq. mm         Control Cabling (PVC insulated and PVC sheathed, armoured, Copper Conductor of 1.1 KV grade on existing cable trays).				
279 280 281 282 283 283 284 285 286	NOTE :         i) All the drainage pumps shall be work cyclic process i.e. in first operation duty pump work on duty and stand by pump duty pump work on stand by and stand by pump work as duty pump.         ii) The drainage Stand by pumps automatically work as drainage assist pump for Duty pump when level of water rises in drainage sump pumps i.e. Both pumps can work at a time & operation shall be controlled with the help of level controllers and float switches.         POWER & CONTROL CABLING         Supply, laying, testing and commissioning of power and control cabling, as per Standard specification including end termination as required.         Power cabling (XLPE) insulated and PVC sheathed, armoured, Aluminium Conductor of 1.1 KV grade on existing cable trays).         3C x 10 Sq. mm         Control Cabling (PVC insulated and PVC sheathed, armoured, Copper Conductor of 1.1 KV grade on existing cable trays).         5C x 1.5 Sq. mm	RMT	35		
279 280 281 282 283 283 284 285 286	NOTE :         i) All the drainage pumps shall be work cyclic process i.e. in first operation duty pump work on duty and stand by pump duty pump work on stand by and stand by pump work as duty pump.         ii) The drainage Stand by pumps automatically work as drainage assist pump for Duty pump when level of water rises in drainage sump pumps i.e. Both pumps can work at a time & operation shall be controlled with the help of level controllers and float switches.         POWER & CONTROL CABLING         Supply, laying, testing and commissioning of power and control cabling, as per Standard specification including end termination as required.         Power cabling (XLPE) insulated and PVC sheathed, armoured, Aluminium Conductor of 1.1 KV grade on existing cable trays).         3C x 10 Sq. mm         Control Cabling (PVC insulated and PVC sheathed, armoured, Copper Conductor of 1.1 KV grade on existing cable trays).	RMT	35		
279 280 281 282 283 284 285 286 287 288	NOTE :         i) All the drainage pumps shall be work cyclic process i.e. in first operation duty pump work on duty and stand by pump duty pump work on stand by and stand by pump work as duty pump.         ii) The drainage Stand by pumps automatically work as drainage assist pump for Duty pump when level of water rises in drainage sump pumps i.e. Both pumps can work at a time & operation shall be controlled with the help of level controllers and float switches.         POWER & CONTROL CABLING         Supply, laying, testing and commissioning of power and control cabling, as per Standard specification including end termination as required.         Power cabling (XLPE) insulated and PVC sheathed, armoured, Aluminium Conductor of 1.1 KV grade on existing cable trays).         3C x 10 Sq. mm         3C x 6 Sq. mm         Control Cabling (PVC insulated and PVC sheathed, armoured, Copper Conductor of 1.1 KV grade on existing cable trays).         5C x 1.5 Sq. mm         Earthing Strip / Wires.	RMT	35 63		
279 280 281 282 283 284 285 286 287 288 288 289	NOTE :         i) All the drainage pumps shall be work cyclic process i.e. in first operation duty pump work on duty and stand by pump duty pump work on stand by and stand by pump work as duty pump.         ii) The drainage Stand by pumps automatically work as drainage assist pump for Duty pump when level of water rises in drainage sump pumps i.e. Both pumps can work at a time & operation shall be controlled with the help of level controllers and float switches.         POWER & CONTROL CABLING         Supply, laying, testing and commissioning of power and control cabling, as per Standard specification including end termination as required.         Power cabling (XLPE) insulated and PVC sheathed, armoured, Aluminium Conductor of 1.1 KV grade on existing cable trays).         3C x 10 Sq. mm         Control Cabling (PVC insulated and PVC sheathed, armoured, Copper Conductor of 1.1 KV grade on existing cable trays).         5C x 1.5 Sq. mm         Earthing Strip / Wires.         Providing and fixing 25 x 5 mm copper strip in 40 mm	RMT RMT RMT	35 63 28		
279 280 281 282 283 284 285 286 287 288	NOTE :         i) All the drainage pumps shall be work cyclic process i.e. in first operation duty pump work on duty and stand by pump duty pump work on stand by and stand by pump work as duty pump.         ii) The drainage Stand by pumps automatically work as drainage assist pump for Duty pump when level of water rises in drainage sump pumps i.e. Both pumps can work at a time & operation shall be controlled with the help of level controllers and float switches.         POWER & CONTROL CABLING         Supply, laying, testing and commissioning of power and control cabling, as per Standard specification including end termination as required.         Power cabling (XLPE) insulated and PVC sheathed, armoured, Aluminium Conductor of 1.1 KV grade on existing cable trays).         3C x 10 Sq. mm         Control Cabling (PVC insulated and PVC sheathed, armoured, Copper Conductor of 1.1 KV grade on existing cable trays).         5C x 1.5 Sq. mm         Earthing Strip / Wires.         Providing and fixing 25 x 5 mm copper strip in 40 mm         Providing and fixing 25 x 5 mm copper strip on surface or in recess for	RMT	35 63		
279 280 281 282 283 284 285 286 287 288 289 290	NOTE :         i) All the drainage pumps shall be work cyclic process i.e. in first operation duty pump work on duty and stand by pump duty pump work on stand by and stand by pump work as duty pump.         ii) The drainage Stand by pumps automatically work as drainage assist pump for Duty pump when level of water rises in drainage sump pumps i.e. Both pumps can work at a time & operation shall be controlled with the help of level controllers and float switches.         POWER & CONTROL CABLING         Supply, laying, testing and commissioning of power and control cabling, as per Standard specification including end termination as required.         Power cabling (XLPE) insulated and PVC sheathed, armoured, Aluminium Conductor of 1.1 KV grade on existing cable trays).         3C x 10 Sq. mm         Control Cabling (PVC insulated and PVC sheathed, armoured, Copper Conductor of 1.1 KV grade on existing cable trays).         5C x 1.5 Sq. mm         Earthing Strip / Wires.         Providing and fixing 25 x 5 mm copper strip in 40 mm         Providing and fixing 25 x 5 mm copper strip on surface or in recess for connections etc. as required.	RMT RMT RMT RMT	35 63 28 23		
279 280 281 282 283 284 285 286 287 288 288 289	NOTE :         i) All the drainage pumps shall be work cyclic process i.e. in first operation duty pump work on duty and stand by pump duty pump work on stand by and stand by pump work as duty pump.         ii) The drainage Stand by pumps automatically work as drainage assist pump for Duty pump when level of water rises in drainage sump pumps i.e. Both pumps can work at a time & operation shall be controlled with the help of level controllers and float switches.         POWER & CONTROL CABLING         Supply, laying, testing and commissioning of power and control cabling, as per Standard specification including end termination as required.         Power cabling (XLPE) insulated and PVC sheathed, armoured, Aluminium Conductor of 1.1 KV grade on existing cable trays).         3C x 10 Sq. mm         Control Cabling (PVC insulated and PVC sheathed, armoured, Copper Conductor of 1.1 KV grade on existing cable trays).         5C x 1.5 Sq. mm         Earthing Strip / Wires.         Providing and fixing 25 x 5 mm copper strip in 40 mm         Providing and fixing 25 x 5 mm copper strip on surface or in recess for connections etc. as required.	RMT RMT RMT	35 63 28		
279 280 281 282 283 284 285 286 287 288 289 290 291	NOTE :         i) All the drainage pumps shall be work cyclic process i.e. in first         operation duty pump work on duty and stand by pump duty pump work on stand by and stand by pump work as duty pump.         ii) The drainage Stand by pumps automatically work as drainage assist pump for Duty pump when level of water rises in drainage sump pumps i.e. Both pumps can work at a time & operation shall be controlled with the help of level controllers and float switches.         POWER & CONTROL CABLING         Supply, laying, testing and commissioning of power and control cabling, as per Standard specification including end termination as required.         Power cabling (XLPE) insulated and PVC sheathed, armoured, Alluminium Conductor of 1.1 KV grade on existing cable trays).         3C x 10 Sq. mm         Control Cabling (PVC insulated and PVC sheathed, armoured, Copper Conductor of 1.1 KV grade on existing cable trays).         5C x 1.5 Sq. mm         Earthing Strip / Wires.         Providing and fixing 25 x 5 mm copper strip in 40 mm         Providing and fixing 25 x 5 mm copper strip on surface or in recess for connections etc. as required.         Providing and fixing 4.0 mm dia. Copper wire on surface or in recess for loop earthing as required.	RMT RMT RMT RMT RMT	35 63 28 23 35		
279 280 281 282 283 284 285 286 287 288 289 290	NOTE :         i) All the drainage pumps shall be work cyclic process i.e. in first operation duty pump work on duty and stand by pump duty pump work on stand by and stand by pump work as duty pump.         ii) The drainage Stand by pumps automatically work as drainage assist pump for Duty pump when level of water rises in drainage sump pumps i.e. Both pumps can work at a time & operation shall be controlled with the help of level controllers and float switches.         POWER & CONTROL CABLING         Supply, laying, testing and commissioning of power and control cabling, as per Standard specification including end termination as required.         Power cabling (XLPE) insulated and PVC sheathed, armoured, Aluminium Conductor of 1.1 KV grade on existing cable trays).         3C x 10 Sq. mm         Control Cabling (PVC insulated and PVC sheathed, armoured, Copper Conductor of 1.1 KV grade on existing cable trays).         5C x 1.5 Sq. mm         Earthing Strip / Wires.         Providing and fixing 25 x 5 mm copper strip in 40 mm         Providing and fixing 25 x 5 mm copper strip on surface or in recess for connections etc. as required.	RMT RMT RMT RMT	35 63 28 23		
279 280 281 282 283 284 285 286 287 288 289 290 291	NOTE :         i) All the drainage pumps shall be work cyclic process i.e. in first         operation duty pump work on duty and stand by pump duty pump work on stand by and stand by pump work as duty pump.         ii) The drainage Stand by pumps automatically work as drainage assist pump for Duty pump when level of water rises in drainage sump pumps i.e. Both pumps can work at a time & operation shall be controlled with the help of level controllers and float switches.         POWER & CONTROL CABLING         Supply, laying, testing and commissioning of power and control cabling, as per Standard specification including end termination as required.         Power cabling (XLPE) insulated and PVC sheathed, armoured, Alluminium Conductor of 1.1 KV grade on existing cable trays).         3C x 10 Sq. mm         Control Cabling (PVC insulated and PVC sheathed, armoured, Copper Conductor of 1.1 KV grade on existing cable trays).         5C x 1.5 Sq. mm         Earthing Strip / Wires.         Providing and fixing 25 x 5 mm copper strip in 40 mm         Providing and fixing 25 x 5 mm copper strip on surface or in recess for connections etc. as required.         Providing and fixing 4.0 mm dia. Copper wire on surface or in recess for loop earthing as required.	RMT RMT RMT RMT RMT	35 63 28 23 35		
279 280 281 282 283 284 285 286 287 288 289 290 291 292	NOTE :         i) All the drainage pumps shall be work cyclic process i.e. in first         operation duty pump work on duty and stand by pump duty pump work on stand by and stand by pump work as duty pump.         ii) The drainage Stand by pumps automatically work as drainage assist pump for Duty pump when level of water rises in drainage sump pumps i.e. Both pumps can work at a time & operation shall be controlled with the help of level controllers and float switches.         POWER & CONTROL CABLING         Supply, laying, testing and commissioning of power and control cabling, as per Standard specification including end termination as required.         Power cabling (XLPE) insulated and PVC sheathed, armoured, Aluminium Conductor of 1.1 KV grade on existing cable trays).         3C x 10 Sq. mm         3C x 6 Sq. mm         Control Cabling (PVC insulated and PVC sheathed, armoured, Copper Conductor of 1.1 KV grade on existing cable trays).         5C x 1.5 Sq. mm         Earthing Strip / Wires.         Providing and fixing 25 x 5 mm copper strip in 40 mm         Providing and fixing 4.0 mm dia. Copper wire on surface or in recess for connections etc. as required.         Providing and fixing 4.0 mm dia. Copper wire on surface or in recess for loop earthing as required.         Supply & laying of rubber mat of size 1000 mm & 12 mm thick.	RMT RMT RMT RMT RMT	35 63 28 23 35		
279 280 281 282 283 284 285 286 287 288 289 290 291 292	NOTE :         i) All the drainage pumps shall be work cyclic process i.e. in first         operation duty pump work on duty and stand by pump duty pump work on stand by and stand by pump work as duty pump.         iii) The drainage Stand by pumps automatically work as drainage assist pump for Duty pump when level of water rises in drainage sump pumps i.e. Both pumps can work at a time & operation shall be controlled with the help of level controllers and float switches.         POWER & CONTROL CABLING         Supply, laying, testing and commissioning of power and control cabling, as per Standard specification including end termination as required.         Power cabling (XLPE) insulated and PVC sheathed, armoured, Aluminium Conductor of 1.1 KV grade on existing cable trays).         3C x 10 Sq. mm         3C x 6 Sq. mm         Control Cabling (PVC insulated and PVC sheathed, armoured, Copper Conductor of 1.1 KV grade on existing cable trays).         5C x 1.5 Sq. mm         Earthing Strip / Wires.         Providing and fixing 25 x 5 mm copper strip in 40 mm         Providing and fixing 25 x 5 mm copper strip on surface or in recess for connections etc. as required.         Supply & laying of rubber mat of size 1000 mm & 12 mm thick.         Supply and installation of ladder type 16G ms cadmium plated 'U'	RMT RMT RMT RMT RMT	35 63 28 23 35		

005	000				1
295		RMT	25		
296	FIRE FIGHTING PLANT ROOM EQUIPMENTS				
207	TERRACE LEVEL - FIRE PUMP	Cat	<u> </u>		
297		Set	6		
	Supplying, storing, handling, shifting, installation, testing and				
	commissioning, supervision of testing of electric driven terrace pump				
200	suitable for automatic operation of horizontal end section centrifugal type				
298	sychoronous speed of 2900 rpm TEFC confirming to IP : 55 & Flexible				
	coupling & coupling guard mounted on common bed plate of fabricated				
	mild steel channel or cast iron type as required.				
200					
299	Capacity : 900 lpm				
	App.head : 35 m				
	App. H.P. : 15 HP				
302	PANELS:				
	Supply, installation, testing and commissioning of following integrated,				
303	cubicle type,dead front, extensible, sheet steel control panel. The panel				
	shall be suitable for 440 volts, 50 cycles, 4 wire supply				
	The following construction of a second se				
304	The following components and accessories shall be mounted with ineach				
005	control panel.				
305	One no 60 amps TP incoming MCCB with the following:				
306	0-500 volts 96 x96 square mm voltmeter with slector switch and control				
	fuses- 1 SET				
307	0-100 amps 96 x96 square mm ammeter with CT's and slector switch-1				
	SET				
308	Phase indicating lamp with toggle switches.				
309	Indication lamps for ON/OFF/TRIP status				
310	Outgoing Feeders / Starters as below:				
311	60 ATP MCCB with star / delta as starter suitable for 15 HP motor for				
911	Downcomer Pump - 1 Set				
312	Provision in control panel to connect flow switch for autmatic operation of				
512	roof fire pumps.				
313					
314	Supply and installation of pressure gauge panel as per the requirement &				
514	comprising:				
315	Pressure gauges & pressure switches with ball valve and 2 x 1.5 sq mm				
313	copper conductor wiring to motor starter panel				
316	Water piping from system upto the gauge panel along with valves etc.				
310					
0	Sheet metal enclosure with glass paneling etc. as approved	•			
317	eneer metal eneredate mitrigidee parleming etc. de appreted	Set	6		
317		Set	6		
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<ul> <li>318</li> <li>319</li> <li>320</li> <li>321</li> <li>322</li> <li>323</li> <li>324</li> <li>325</li> <li>326</li> <li>327</li> <li>328</li> <li>329</li> </ul>	Supply, fabrication (as per code), installation, testing and commissioning of Pressure vessels 450mm diameter and 1000mm high fabricated from 8-10mm M.S. plate with accessories inside painting with epoxy paint and outside with enamel. Providing, fixing, testing & commissioning of resilient rubber lined single arch vibration eliminators suitable for raw water up to 45 deg. C temperature, working pressure 8.8 Kg/cm2 and test pressure 14 Kg/cm2 for :- 150 mm dia FIRE FIGHTING SYSTEM NOTE : Contractor shall obtain, from the local fire authority, completion certificate with respect to his work as required for occupation of the building without any extra cost. Supply, installation, testing, trial run and commissioning of hydrants all complete as required and as approved Internal hydrants / landing valves generally as specified and all complete with: 63mm dia single outlet landing valve IS marked with suitable size bolts, nuts, washers and gaskets. Landing valve shall be as per IS code. First aid hose reel with 25 mm dia, 30 m long rubber hose, ball valve, piping, nozzle and pressure guage as per IS code. 63mm reinforced rubber hoses (RRL) with male and female SS coupling, IS marked- 15 m. as per IS code. Standard short size SS branch pipe with nozzle of 20mm nomnal bor outlet with instaneous type 63 mm dia coupling complete as per IS code. Fire Axe Aluminium 1000x1800 door for recessed fire hose cabinet. The door shall have a front glass with lock and key arrangement & shall be painted with post office red colour (approval shall be taken on the basis of submitted sample before ordering).	Each Each Each Each Each Each Each	6 11 50 50 50 50 50 50 50		
<ul> <li>318</li> <li>319</li> <li>320</li> <li>321</li> <li>322</li> <li>323</li> <li>324</li> <li>325</li> <li>326</li> <li>327</li> <li>328</li> <li>329</li> </ul>	Supply, fabrication (as per code), installation, testing and commissioning of Pressure vessels 450mm diameter and 1000mm high fabricated from 8-10mm M.S. plate with accessories inside painting with epoxy paint and outside with enamel. Providing, fixing, testing & commissioning of resilient rubber lined single arch vibration eliminators suitable for raw water up to 45 deg. C temperature, working pressure 8.8 Kg/cm2 and test pressure 14 Kg/cm2 for :- 150 mm dia FIRE FIGHTING SYSTEM NOTE : Contractor shall obtain, from the local fire authority, completion certificate with respect to his work as required for occupation of the building without any extra cost. Supply, installation, testing, trial run and commissioning of hydrants all complete as required and as approved Internal hydrants / landing valves generally as specified and all complete with: 63mm dia single outlet landing valve IS marked with suitable size bolts, nuts, washers and gaskets. Landing valve shall be as per IS code. First aid hose reel with 25 mm dia, 30 m long rubber hose, ball valve, piping, nozzle and pressure guage as per IS code. 63mm reinforced rubber hoses (RRL) with male and female SS coupling, IS marked-15 m. as per IS code. 51m Ais and pressure guage as per IS code. 63mm reinforced rubber hoses (RRL) with nozzle of 20mm nomnal bor outlet with instaneous type 63 mm dia coupling complete as per IS code. Fire Axe Aluminium 1000x1800 door for recessed fire hose cabinet. The door shall have a front glass with lock and key arrangement & shall be painted with post office red colour (approval shall be taken on the basis of submitted sample before ordering). 1200x600x2100 Recessed type mansoary box of accommodating fire	Each Each Each Each Each Each Each	6 11 50 50 50 50 50 50		
<ul> <li>318</li> <li>319</li> <li>320</li> <li>321</li> <li>322</li> <li>323</li> <li>324</li> <li>325</li> <li>326</li> <li>327</li> <li>328</li> <li>329</li> </ul>	Supply, fabrication (as per code), installation, testing and commissioning of Pressure vessels 450mm diameter and 1000mm high fabricated from 8-10mm M.S. plate with accessories inside painting with epoxy paint and outside with enamel. Providing, fixing, testing & commissioning of resilient rubber lined single arch vibration eliminators suitable for raw water up to 45 deg. C temperature, working pressure 8.8 Kg/cm2 and test pressure 14 Kg/cm2 for :- 150 mm dia FIRE FIGHTING SYSTEM NOTE : Contractor shall obtain, from the local fire authority, completion certificate with respect to his work as required for occupation of the building without any extra cost. Supply, installation, testing, trial run and commissioning of hydrants all complete as required and as approved Internal hydrants / landing valves generally as specified and all complete with: 63mm dia single outlet landing valve IS marked with suitable size bolts, nuts, washers and gaskets. Landing valve shall be as per IS code. First aid hose reel with 25 mm dia, 30 m long rubber hose, ball valve, piping, nozzle and pressure guage as per IS code. 63mm reinforced rubber hoses (RRL) with male and female SS coupling, IS marked- 15 m. as per IS code. 51m Aistor size SS branch pipe with nozzle of 20mm nomnal bor outlet with instaneous type 63 mm dia coupling complete as per IS code. Fire Axe Aluminium 1000x1800 door for recessed fire hose cabinet. The door shall have a front glass with lock and key arrangement & shall be painted with post office red colour (approval shall be taken on the basis of submitted sample before ordering). 1200x600x2100 Recessed type mansoary box of accommodating fire hose reel, landing valve, hose pipes, fittings, 1 No. CO2 & 1 No. Dry	Each Each Each Each Each Each Each	6 11 50 50 50 50 50 50		
<ul> <li>318</li> <li>319</li> <li>320</li> <li>321</li> <li>322</li> <li>323</li> <li>324</li> <li>325</li> <li>326</li> <li>327</li> <li>328</li> <li>329</li> <li>330</li> </ul>	Supply, fabrication (as per code), installation, testing and commissioning of Pressure vessels 450mm diameter and 1000mm high fabricated from 8-10mm M.S. plate with accessories inside painting with epoxy paint and outside with enamel. Providing, fixing, testing & commissioning of resilient rubber lined single arch vibration eliminators suitable for raw water up to 45 deg. C temperature, working pressure 8.8 Kg/cm2 and test pressure 14 Kg/cm2 for :- 150 mm dia FIRE FIGHTING SYSTEM NOTE : Contractor shall obtain, from the local fire authority, completion certificate with respect to his work as required for occupation of the building without any extra cost. Supply, installation, testing, trial run and commissioning of hydrants all complete as required and as approved Internal hydrants / landing valves generally as specified and all complete with: 63mm dia single outlet landing valve IS marked with suitable size bolts, nuts, washers and gaskets. Landing valve shall be as per IS code. First aid hose reel with 25 mm dia, 30 m long rubber hose, ball valve, piping, nozzle and pressure guage as per IS code. 63mm reinforced rubber hoses (RRL) with male and female SS coupling, IS marked- 15 m. as per IS code. 51m reinforced rubber hoses (RRL) with male and female SS coupling, IS marked- 15 m. as per IS code. Fire Axe Aluminium 1000x1800 door for recessed fire hose cabinet. The door shall have a front glass with lock and key arrangement & shall be painted with post office red colour (approval shall be taken on the basis of submitted sample before ordering). 1200x600x2100 Recessed type mansoary box of accommodating fire hose reel, landing valve, hose pipes, fittings, 1 No. CO2 & 1 No. Dry podwer type portable fire extinguishers & accessories By Civil	Each Each Each Each Each Each Each Each	6 11 50 50 50 50 50 50		
<ul> <li>318</li> <li>319</li> <li>320</li> <li>321</li> <li>322</li> <li>323</li> <li>324</li> <li>325</li> <li>326</li> <li>327</li> <li>328</li> <li>329</li> <li>330</li> </ul>	Supply, fabrication (as per code), installation, testing and commissioning of Pressure vessels 450mm diameter and 1000mm high fabricated from 8-10mm M.S. plate with accessories inside painting with epoxy paint and outside with enamel. Providing, fixing, testing & commissioning of resilient rubber lined single arch vibration eliminators suitable for raw water up to 45 deg. C temperature, working pressure 8.8 Kg/cm2 and test pressure 14 Kg/cm2 for :- 150 mm dia FIRE FIGHTING SYSTEM NOTE : Contractor shall obtain, from the local fire authority, completion certificate with respect to his work as required for occupation of the building without any extra cost. Supply, installation, testing, trial run and commissioning of hydrants all complete as required and as approved Internal hydrants / landing valves generally as specified and all complete with: 63mm dia single outlet landing valve IS marked with suitable size bolts, nuts, washers and gaskets. Landing valve shall be as per IS code. First aid hose reel with 25 mm dia, 30 m long rubber hose, ball valve, piping, nozzle and pressure guage as per IS code. 63mm reinforced rubber hoses (RRL) with male and female SS coupling, IS marked- 15 m. as per IS code. 51m Aistor size SS branch pipe with nozzle of 20mm nomnal bor outlet with instaneous type 63 mm dia coupling complete as per IS code. Fire Axe Aluminium 1000x1800 door for recessed fire hose cabinet. The door shall have a front glass with lock and key arrangement & shall be painted with post office red colour (approval shall be taken on the basis of submitted sample before ordering). 1200x600x2100 Recessed type mansoary box of accommodating fire hose reel, landing valve, hose pipes, fittings, 1 No. CO2 & 1 No. Dry	Each Each Each Each Each Each Each Each	6 11 50 50 50 50 50 50		

Bits         Bits         Complete actual and and a support of an order of and and complete index of untraktion quickes proved are ordered.           33         With orderstanding valves proved are ordered.         Each         6           34         With orderstanding valves proved are ordered.         Each         6           35         With orderstanding valves proved are ordered.         Each         6           36         Sign orderstanding valves are ordered.         Each         1           37         Sign orderstanding valves are ordered.         Each         6           38         Interaction are action and the order order order order order order order order order ordered.         Each         6           38         Interaction are ordered.         Each         6         Each           39         Interaction are ordered.         Each         6         Each           30         Interaction are ordered.         Interaction are ordered.         Each         6           30         Interaction are ordered.         Interaction are ordered.         Each         6           31         Interaction are ordered.         Interaction are ordered.         Each         6           32         Interaction are ordered.         Interaction are ordered.         Interaction are ordered.						
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333     win:	332					
Math.         Math.         Math.         Each         6           314         nuts, washes and gaskets. Landing whee shalls be as per 15 code.         Each         6           325         Simmerificated rubber loss (RRL) with mate and female SS coupling.         Each         11           326         Simmerificated rubber loss (RRL) with mate and female SS coupling.         Each         6           327         File A.a.         Each         6           328         Simmerificated rubber loss (RRL) with heat and grange coupling a specific code.         Each         6           328         File A.a.         Each         6            329         Simmerification and coupling with heat and rubber loss of accommodating if the hear a fort giaser limits. It has a fort giaser limits. The coort shall have a fort giaser limits. The coort shall	222	Internal hydrants/landing valves generally as specified and all complete				
314     nucl, washers and gakets. Linding value shall be as per IS code.     Each     6       315     Bitme information duber heads of Down normal beam in the anal estimate SS coupling.     Each     11       316     Bitme information SS SB hands.     Each     6       317     File Axee     6     Each     6       318     Bitme information SS SB hands.     Each     6       317     File Axee     6     Each     6       318     bit point SS SB hands.     Each     6       319     bit instance stort in Stort SB in Stort SN in Stort S	333	with:				
314     nucl, washers and gakets. Linding value shall be as per IS code.     Each     6       315     Bitme information duber heads of Down normal beam in the anal estimate SS coupling.     Each     11       316     Bitme information SS SB hands.     Each     6       317     File Axee     6     Each     6       318     Bitme information SS SB hands.     Each     6       317     File Axee     6     Each     6       318     bit point SS SB hands.     Each     6       319     bit instance stort in Stort SB in Stort SN in Stort S		63mm dia single outlet landing valve IS marked with suitable size bolts.				
Science relationed nubber hases (RRL) with male and female SS coupling.         Each         11           Stimulated - bit is spaced.         Each         11           Stimulated - bit is spaced.         Each         6           Stimulated - bit is spaced.         Each         5           Stimulated - bit is spaced.         Each         6           Stimulated - bit is spaced.         Stimulated - bit is spaced.         5           Stimulated - bit is spaced.         Stimulate - bit is	334		Fach	6		
333       Is marked - 15 m as per IS code.       Exch       1         343       Is marked - 15 m as per IS code.       Exch       6         344       Intert with instances type IS mm dis coupling complete as per IS code.       Exch       6         347       Iffe Ave       File Ave       6       Image: Ave         348       Image: Ave       File Ave       6       Image: Ave         349       Image: Ave       File Ave       6       Image: Ave         349       Image: Ave       File Ave       6       Image: Ave         349       Image: Ave       File Ave       File Ave       6       Image: Ave         349       Image: Ave       File Ave       6       Image: Ave       6         349       Image: Ave       File Ave       File Ave       Image: Ave       6       Image: Ave       Image: Ave       File Ave       Image: Ave       File Ave	554	nais, washers and gaskets. Landing valve shall be as per to tode.	Laon	v		
333       Is marked - 15 m as per IS code.       Exch       1         343       Is marked - 15 m as per IS code.       Exch       6         344       Intert with instances type IS mm dis coupling complete as per IS code.       Exch       6         347       Iffe Ave       File Ave       6       Image: Ave         348       Image: Ave       File Ave       6       Image: Ave         349       Image: Ave       File Ave       6       Image: Ave         349       Image: Ave       File Ave       6       Image: Ave         349       Image: Ave       File Ave       File Ave       6       Image: Ave         349       Image: Ave       File Ave       6       Image: Ave       6         349       Image: Ave       File Ave       File Ave       Image: Ave       6       Image: Ave       Image: Ave       File Ave       Image: Ave       File Ave		62mm rainforced rubbar bases (PPL) with male and female SS coupling				
Image: standard abort size SS branch pipe with noize (o) Edit with missiones by the SS branch pipe with noize (o) Edit with standows by the SS branch pipe with noize (o) Edit with standows by the SS branch pipe with noize (o) Edit with standows by the SS branch pipe with standows be standows by the SS branch pipe with standows be standows by the SS branch pipe with standows be standows by the SS branch pipe with standows be standows by the SS branch pipe with standows be standows by the SS branch pipe with standows by the SS branch pipe with standows by the SS branch pipe with standows pipe with standow	335		Each	11		
336       built with instanceus type B3 mm dia coupling complete as per IS code.       Each       6         337       Fie Axe.       Auminium Founder coated 900x1800 door for recessed firs house elability.       Each       6         338       basis of submitted sample before ordering).       Basis of submitted sample before ordering.       Each       6         339       boose red, landing value, house pipes, fittings, 1 No. CO2 & 1 No. Dry power type protate fire endinguishes A accessories. By CWI       Each       6         339       boose red, landing value, house pipes, fittings, 1 No. CO2 & 1 No. Dry power type protate fire endinguishes A accessories. By CWI       Each       6         340       contractor.       Contractor.       Set       6         341       fitting department connection) ordinating of 1 No. B3 mm dia accessories. This D mm diameter site ordinatin including wall mounted box of N. S. construction with glass door to house the above mealioned components. By Poi Soude.       9       9         342       fitting department connection) with glass door to house the above mealioned components. By Poi Soude.       9       9         343       fitting department connection with glass door to house the above mealioned components. By Poi Soude.       9       9         344       fitting department connection with glass door to house the above mealioned components. By Poi Soude.       9       9         344       fitting						
313         Fire Axe         Each         6           323         Fire Axe         Each         6           324         Aumnium Powder coater dott glass with lock and leg arrangement & hatel basis of submitted sample before ordering).         6           329         Bobe30x1800 Recessed type mansasary lox of accommodating fire hese real, lending valve, hese pies, fittings, 1 No. C2 & 1 No. D2         6           329         Diob60x1800 Recessed type mansasary lox of accommodating fire hese real, lending valve, hese pies, fittings, 1 No. C2 & 1 No. D2         Each           320         Contractor.         Each         6           321         Contractor.         Each         6           3240         Contractor.         Each         6           3240         Contractor.         Each         6           3241         Contractor.         Each         6           3240         Contractor.         Set         6           3241         Contractor.         Set         0           3242         Contractor.         No. Tabut the data with the dat			_			
Auminium Power oracide 300x1800 door for recessed fine hose cabinet. The door shall have a fine dise with local and expansionem 4 shall basis of submitted sample before ordering).         Each         6           339         boole30x1800 Recessed type mansacely bas of accommodaring fire hose roci. Linding valve, hose pipes, Hillings 1. No. CO2 & 11 No. CO2 & 11 No.         Each         6           349         boole30x1800 Recessed type mansacely bas of accommodaring fire hose roci. Linding valve, hose pipes, Hillings 1. No. CO2 & 11 No.         Each         6           340         diameter siluce valve, 1 No. 150mm dia hear of 1. No. 150 mm mourted box of M.S. construction with glass door to house the above mentioned components. as per IS code.         Set         6           341         mourted box of M.S. construction with glass door to house the above mentioned components.         Set         0           342         bio nominal box M.S. construction with glass door to house the above mourted box M.S. construction with glass door to house the above mounted box M.S. construction with glass door to house the above mounted box M.S. construction with glass door to house the above mounted box M.S. construction with glass door to house the above mounted box M.S. construction with glass door to house the above mounted box M.S. construction with glass door to house the above mounted box M.S. construction with glass door to house the above mounted box M.S. Construction with glass door to house the above mounted box M.S. construction with glass door to house the above mounted box M.S. construction with glass door to house the above mounted box M.S. Construction with glass door to house the above mounted box M.S. Construction with glass	336	outlet with instaneous type 63 mm dia coupling complete as per IS code.	Each	6		
Auminium Power oracide 300x1800 door for recessed fine hose cabinet. The door shall have a fine dise with local and expansionem 4 shall basis of submitted sample before ordering).         Each         6           339         boole30x1800 Recessed type mansacely bas of accommodaring fire hose roci. Linding valve, hose pipes, Hillings 1. No. CO2 & 11 No. CO2 & 11 No.         Each         6           349         boole30x1800 Recessed type mansacely bas of accommodaring fire hose roci. Linding valve, hose pipes, Hillings 1. No. CO2 & 11 No.         Each         6           340         diameter siluce valve, 1 No. 150mm dia hear of 1. No. 150 mm mourted box of M.S. construction with glass door to house the above mentioned components. as per IS code.         Set         6           341         mourted box of M.S. construction with glass door to house the above mentioned components.         Set         0           342         bio nominal box M.S. construction with glass door to house the above mourted box M.S. construction with glass door to house the above mounted box M.S. construction with glass door to house the above mounted box M.S. construction with glass door to house the above mounted box M.S. construction with glass door to house the above mounted box M.S. construction with glass door to house the above mounted box M.S. construction with glass door to house the above mounted box M.S. construction with glass door to house the above mounted box M.S. Construction with glass door to house the above mounted box M.S. construction with glass door to house the above mounted box M.S. construction with glass door to house the above mounted box M.S. Construction with glass door to house the above mounted box M.S. Construction with glass						
The door shall have a front glass with lock and key arrangement & shall be painted with post office role dool (approval hall be taken on the basis of submitted sample before ordering).         Each         6           30         B00x800x1800 Recessed type mansary box of accommodating fire hors real, landing value, hose pays, fittings, 1 No. COZ & 1 No. Dyy CoX & 1 No. COX & 1 No. Dyy CoX & 1 No. COX & 1 No. Dyy CoX & 1 No. COX & 1 No. S & 1 No. COX &	337		Each	6		
Bits of submitted sample betries ordering).       Each       6         309       bits of submitted sample betries ordering).       Bookdoox1800 Recessed type manscary box of accommodating fire hose real, landing valve, hose pipes, fittings, I No. CO2 & I No. Dry pocher type portable fire extinguishers & accessories. By Civil       Each       6         309       bookdoox1800 Recessed type manscary box of accommodating fire hose real, landing valve, hose pipes, fittings, I No. CO2 & I No. Dry pocher type portable fire extinguishers & accessories. By Civil       Each       6         300       connection (fire department connection) consisting of the brigade inlet connection of some dia hoseder, I No. 150 rm m dia matanta-eus intel arranged on a 50 rm dia header, I No. 150 rm m oruter box of M.S. construction with glass door to house the above mentioned components. But points and the store part of the brigade draw out connection of the store part MS class Cr. Toom dia. 100 rm dia. 100 rm dia. 100 rm dia. 100 rm dia. 500 rm dia header, I No. 150 rm       Set       0         301       Bookdoox MS. construction with glass door to house the above mentioned componenets.       M       200       100 rm dia. 100 rm dia. 100 rm dia. 500 rm dia header, I No. 150 rm       Set       0       0         302       Bouply, fabrication & laying heavy grade IS marked black mild steel piping complete with all fittings, pipe supports, class approved with welded plining for exemption and thrust blocks generally as a proceive supports.       Set       0       0         303       Boupportine bare       M       200		Aluminium Powder coated 900x1800 door for recessed fire hose cabinet.				
basis of submitted sample before ordering).         basis of submitted sample before ordering).         basis of submitted sample before ordering).           309         B00x600x1800 Racessed type mansaary box of accommodating fire horder text hord through the subscripts. No. CO2 & 1 No. Dry portable fire extinguishes & accessories. By Cruit Contraction.         Each         Image: Contraction of the stringuishes & accessories. By Cruit Contraction.           300         Description of the stringuishes & accessories. By Cruit Contraction.         Image: Contraction of the stringuishes & accessories. By Cruit Contraction.         Image: Contraction of the stringuishes of accessories.           300         Instruction on a 50 mm of above the above meabove metrifored components. sep Pril S code.         Image: Contraction on the stringuishes of the brigade draw out connection (file department connection) with suscion pipe MS class: Cr         Image: Contraction on the stringuishes of the brigade draw out connection (file department connection) with suscion pipe MS class: Cr         Image: Contraction on the stringuishes of the brigade draw out connection (file department connection) with suscion pipe MS class: Cr         Image: Contraction on the stringuishes of the brigade draw out connection (file department connection) with suscion pipe MS class: Cr           310         Too mmin ab 100 mm din Conta with gales door to house the above metioned components.         Image: Contraction of the brigade draw out connection (file department connection) with gales door to house the above metioned components.         Image: Contraction of the brigade draw out connection (file department connection with gales door to house the above metioned cordering in th						
basis of submitted sample before ordering).         basis of submitted sample before ordering).         basis of submitted sample before ordering).           309         B00x600x1800 Racessed type mansaary box of accommodating fire horder text hord through the subscripts. No. CO2 & 1 No. Dry portable fire extinguishes & accessories. By Cruit Contraction.         Each         Image: Contraction of the stringuishes & accessories. By Cruit Contraction.           300         Description of the stringuishes & accessories. By Cruit Contraction.         Image: Contraction of the stringuishes & accessories. By Cruit Contraction.         Image: Contraction of the stringuishes of accessories.           300         Instruction on a 50 mm of above the above meabove metrifored components. sep Pril S code.         Image: Contraction on the stringuishes of the brigade draw out connection (file department connection) with suscion pipe MS class: Cr         Image: Contraction on the stringuishes of the brigade draw out connection (file department connection) with suscion pipe MS class: Cr         Image: Contraction on the stringuishes of the brigade draw out connection (file department connection) with suscion pipe MS class: Cr         Image: Contraction on the stringuishes of the brigade draw out connection (file department connection) with suscion pipe MS class: Cr           310         Too mmin ab 100 mm din Conta with gales door to house the above metioned components.         Image: Contraction of the brigade draw out connection (file department connection) with gales door to house the above metioned components.         Image: Contraction of the brigade draw out connection (file department connection with gales door to house the above metioned cordering in th	338	be painted with post office red colour (approval shall be taken on the	Each	6		
S00x600x1800 Recessed type mansoary box of accommodating fire hooker type portable fire extinguishers & accessries. By Civil Connector.         Each           319         Docked yave. hose pipes, fittings, 1 No. CO2 & 1 No. Dy podwer type portable fire extinguishers & accessries. By Civil Connector.         Each         Each           310         Dordma, Installing, testing & commissioning of fire brigade intel connection (fire department connection) consisting of 4 Nos. 63 mm dia instantaneous intel arranged on a 50 mm dia header, 1 No. 150 mm diameter sluce valve, 1 No. 150 mm dia. Nos. 63 mm dia instantaneous intel arranged on a 50 mm dia header, 1 No. 150 mm diameter sluce valve, 1 No. 50 mm dia. Nos construction with glass door to house the above mentioned components. as per 1's code.         Set         6           311         100 mm dia. 6 100 mm dia. foot valve & steel chain including will mounted box M.S. construction with glass door to house the above mentioned components.         Set         9           312         100 mm dia. 8 100 mm dia. foot valve & steel chain including will mounted box M.S. construction with glass door to house the above mentioned components.         M         200           313         150 norminal bore         M         200         Set         0           314         100 nonies that fittings, pipe supports, clamps etc. as approved wit wieded jointing for external hydrart system. Thes pipes shill be provided with 2mm thick weather proof treatment like covering with 150 norminal bore         M         200         Set           315         100 norninal bore         M						
339         Incer real, landing valve, hose pipes, fittings, 1 No. CO2 & 1 No. Dry podwer type portable fire extinguishers & accessories By Civil Contractor.         Each           340         Froviding, installing, testing & commisioning of fire brigade inlet connection (fite department connection) consisting of 4 Nos. 63 mm dia instantaneous inlet arranged on a 50 mm dia backer, 1 No. 100 mm mentioned components. as per 15 code.         Set         6           341         Froviding, installing, testing & commissioning of fire brigade draw out connection (fite department connection) with suction pipe MS class 'C' 100 mm dia. 3 t00 mm dia. to out valve & steal chain including wall as too ranke to not valve & steal chain including wall supply, fabrication & laying heavy grade IS marked black mild steal piping complete with all fittings, pipe supports, clamps etc. as approved with welded pinning for example type capports, clamps etc. as approved with welded pinning for example type capports, clamps etc. as approved with welded pinning for example type or tradiment like covering with pagetocide components.         M         200           343         150 nominal bore         M         200         38						
339         Incer real, landing valve, hose pipes, fittings, 1 No. CO2 & 1 No. Dry podwer type portable fire extinguishers & accessories By Civil Contractor.         Each           340         Froviding, installing, testing & commisioning of fire brigade inlet connection (fite department connection) consisting of 4 Nos. 63 mm dia instantaneous inlet arranged on a 50 mm dia backer, 1 No. 100 mm mentioned components. as per 15 code.         Set         6           341         Froviding, installing, testing & commissioning of fire brigade draw out connection (fite department connection) with suction pipe MS class 'C' 100 mm dia. 3 t00 mm dia. to out valve & steal chain including wall as too ranke to not valve & steal chain including wall supply, fabrication & laying heavy grade IS marked black mild steal piping complete with all fittings, pipe supports, clamps etc. as approved with welded pinning for example type capports, clamps etc. as approved with welded pinning for example type capports, clamps etc. as approved with welded pinning for example type or tradiment like covering with pagetocide components.         M         200           343         150 nominal bore         M         200         38		900x600x1800 Recessed type mansoary box of accommodating fire				
30%       Dodwer type portable fire extinguishers & accessories By Chil       Each         Providing, installing, testing & commissioning of fire brigade inlet.						
Contractor.         Contractor.           Providing, installing, testing & commisioning of fire brigade inlet connection (fire department connection) consisting of 4 Nos. 63 mm dia instantaneous inlet arranged on a 50 mm dia hazder, 1 No. 150 mm mounted box of M.S. construction with glass door to house the above mentioned components. as per IS code.         6           Providing, installing, testing & commissioning of fire brigade draw out connection (fire department connection) with suction pipe MS class 'C 100 mm dia. 3 100 mm dia. To ot vave & stee chain including wall apply, fabrication & laying heavy grade IS marked black mild steel pipor components.         Set         0           341         Supply, fabrication & laying heavy grade IS marked black mild steel pipor dow thir 2mm thick weather proof reastment like covering with weiched jointing for external hydrart system. Thes pipes shall be provided with 2mm thick weather proof reastment like covering with scavation up to hard murram as per general profiles and back filling to morited and approved.         M         200           343         Excavation up to hard murram as per general profiles and back filling per required and approved.         M         83           344         Bio nominal bore         Each         8         0           345         Excavation up to hard murram as per general profiles and back filling per required and approved.         M         83           346         Bio nominal bore         Each         8         0           347         Supply and installation of Butteffly Valves with mating flanges generally segn	339		Each			
Image: connection (if the department connection) consisting of fire brigade intel connection (if the department connection) consisting of 4 Nos. 63 nm dia instantaneous intel arranged on a 50 nm dia header. 1 No. 150 nm diameter stuice valve, 1 No. 150mm dia. Non-return valve and wall mounted box of M.S. construction with glass door to house the above mentioned components. as per 18 code.         Set         6           211         Providing, installing, testing & commissioning of fire brigade draw out connection (fire department connection) with suctoring wall mentioned components. as per 18 code.         Set         0           211         Dormedia N to walk & steel chain including wall mentioned components. So contraction with glass door to house the above mentioned components.         Set         0           212         Supply, fabrication & laying heavy grade 1S marked black mild steel piping complete with all fittings, pipe supports, clamps etc. as approved with welded joining for external hydran system. Thes pipes shall be provided with 2mm thick weather proof treatment like covering with pypkot complete.         M         200           213         Excavation upto hard murram as per general profiles and back filling per required and approved.         M         83           214         Making 112-4 cement concrete supports and thrust blocks generally as per required and approved.         CUM         38           2150 nominal bore         Each         0						
connection (fire digattment connection) consisting of 4 Nos. 63 mm dia instantaneous inlet arranged on a 50 mm dia header, 1 No. 150 mm mounted box of M.S. construction with glasse door to house the above mentioned components. as per IS code.     6       Providing, installing, testing & commissioning of fire brigade draw out connection (fire department connection) with suction pipe MS class C <sup>1</sup> to 0 mm dia. & 100 mm dia. fot valve & steel chain including wall mounted box M.S. construction with glasse door to house the above mentioned componenets.     Set     0       Supply, fabrication & laying heavy grade IS marked black mild steel to 0 mm dia. & 100 mm dia. Baying heavy grade IS marked black mild steel to 0 mm dia. & 100 mm dia. Baying heavy grade IS marked black mild steel to 0 mm dia. & 100 mm dia. Baying heavy grade IS marked black mild steel to 0 mm dia. The stee steep of treatment like covering with to 0 mm dia. The stee steep of treatment like covering with to 0 mm dia. Baying heavy grade IS marked black filling     M     200       340     fibs nominal bore     M     33       341     fibs nominal bore     M     38       342     fibs nominal bore     M     38       343     fibs nominal bore     M     200       344     fibs nominal bore     M     38       345     Excavation upto hard murram as per general profiles and back filling the specified all complete.     M       346     Making 1:2:4 coment concrete supports and thrust blocks generally as per required and approved.     CUM     38       347     Supply, installation of Butterffy Valves w						
connection (fire digattment connection) consisting of 4 Nos. 63 mm dia instantaneous inlet arranged on a 50 mm dia header, 1 No. 150 mm mounted box of M.S. construction with glasse door to house the above mentioned components. as per IS code.     6       Providing, installing, testing & commissioning of fire brigade draw out connection (fire department connection) with suction pipe MS class C <sup>1</sup> to 0 mm dia. & 100 mm dia. fot valve & steel chain including wall mounted box M.S. construction with glasse door to house the above mentioned componenets.     Set     0       Supply, fabrication & laying heavy grade IS marked black mild steel to 0 mm dia. & 100 mm dia. Baying heavy grade IS marked black mild steel to 0 mm dia. & 100 mm dia. Baying heavy grade IS marked black mild steel to 0 mm dia. & 100 mm dia. Baying heavy grade IS marked black mild steel to 0 mm dia. The stee steep of treatment like covering with to 0 mm dia. The stee steep of treatment like covering with to 0 mm dia. Baying heavy grade IS marked black filling     M     200       340     fibs nominal bore     M     33       341     fibs nominal bore     M     38       342     fibs nominal bore     M     38       343     fibs nominal bore     M     200       344     fibs nominal bore     M     38       345     Excavation upto hard murram as per general profiles and back filling the specified all complete.     M       346     Making 1:2:4 coment concrete supports and thrust blocks generally as per required and approved.     CUM     38       347     Supply, installation of Butterffy Valves w						
connection (fire digattment connection) consisting of 4 Nos. 63 mm dia instantaneous inlet arranged on a 50 mm dia header, 1 No. 150 mm mounted box of M.S. construction with glasse door to house the above mentioned components. as per IS code.     6       Providing, installing, testing & commissioning of fire brigade draw out connection (fire department connection) with suction pipe MS class C <sup>1</sup> to 0 mm dia. & 100 mm dia. fot valve & steel chain including wall mounted box M.S. construction with glasse door to house the above mentioned componenets.     Set     0       Supply, fabrication & laying heavy grade IS marked black mild steel to 0 mm dia. & 100 mm dia. Baying heavy grade IS marked black mild steel to 0 mm dia. & 100 mm dia. Baying heavy grade IS marked black mild steel to 0 mm dia. & 100 mm dia. Baying heavy grade IS marked black mild steel to 0 mm dia. The stee steep of treatment like covering with to 0 mm dia. The stee steep of treatment like covering with to 0 mm dia. Baying heavy grade IS marked black filling     M     200       340     fibs nominal bore     M     33       341     fibs nominal bore     M     38       342     fibs nominal bore     M     38       343     fibs nominal bore     M     200       344     fibs nominal bore     M     38       345     Excavation upto hard murram as per general profiles and back filling the specified all complete.     M       346     Making 1:2:4 coment concrete supports and thrust blocks generally as per required and approved.     CUM     38       347     Supply, installation of Butterffy Valves w						
310     Instantaneous inite arranged on a 50 mm dia header, 1 No. 150 mm diameter, 1 No. 150 mdi, No. 150 mdi		<b>0</b> . <b>0</b> . <b>0</b>				
340     diameter sluice valve, 1 No. 150rm dia. Non-return valve and wall mounted box f M.S. construction with glass door to house the above mentioned components. as per IS code.     5       741     forviding, installing, testing & commisioning of fire brigade draw out connection (fire department connection) with suction pipe MS class IC.     5       341     100 mm dia. 401 00 mm dia. foot valve & stele chain including wall mounted box M.S. construction with glass door to house the above mentioned components.     5       342     Supply, fabrication & laying heavy grade IS marked black mild steel piping complete with all fittings, pipe supports, clamps etc. as approved with wedded joining for external hydran system. Thes pipes shall be provided with 2 mm thick weather proof treatment like covering with prycket complete.     M       343     150 nominal bore     M     83       344     100 nominal bore     M     83       345     Exavation upto hard murram as per general profiles and back filling     Meter     281       346     Supply and installation of Butterfly Valves with mating flanges generally as a specified all complete.     Supply as a specified all complete.       347     Supply, installation of Butterfly Valves with mating flanges generally as a specified all complete.     Supply, installation of Butterfly Valves with flanges generally as a specified all complete.       348     100 nominal bore     Each     6       349     100 nominal bore     Each     6       341     100 nominal bore     Each </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
340     diameter sluice valve, 1 No. 150rm dia. Non-return valve and wall mounted box f M.S. construction with glass door to house the above mentioned components. as per IS code.     5       741     forviding, installing, testing & commisioning of fire brigade draw out connection (fire department connection) with suction pipe MS class IC.     5       341     100 mm dia. 401 00 mm dia. foot valve & stele chain including wall mounted box M.S. construction with glass door to house the above mentioned components.     5       342     Supply, fabrication & laying heavy grade IS marked black mild steel piping complete with all fittings, pipe supports, clamps etc. as approved with wedded joining for external hydran system. Thes pipes shall be provided with 2 mm thick weather proof treatment like covering with prycket complete.     M       343     150 nominal bore     M     83       344     100 nominal bore     M     83       345     Exavation upto hard murram as per general profiles and back filling     Meter     281       346     Supply and installation of Butterfly Valves with mating flanges generally as a specified all complete.     Supply as a specified all complete.       347     Supply, installation of Butterfly Valves with mating flanges generally as a specified all complete.     Supply, installation of Butterfly Valves with flanges generally as a specified all complete.       348     100 nominal bore     Each     6       349     100 nominal bore     Each     6       341     100 nominal bore     Each </td <td>240</td> <td></td> <td>8</td> <td>6</td> <td></td> <td></td>	240		8	6		
mounted box of M.S. construction with glass door to house the above mentioned components. as per IS code.         Image: Components as per IS code.           Providing, installing, testing & commissioning of fire brigade draw out connection (fire department connection) with suction pipe MS class C'. 100 mm dia. 8 100 mm dia. 100 tavke & state chain including wall mounted box M.S. construction with glass door to house the above mentioned components.         Set         0           Supply, fabrication & laying heavy grade IS marked black mild steel piping complete with all fittings, pipe supports, clamps etc. as a spproved with veloded jointing for external hydrant system. Thes pipes shall be provided with 2mm thick weather proof treatment like covering with system complete.         M         200           344         100 nominal bore         M         83         Image: Complete with all fittings, pipe system thes covering with system complete.         M         200           344         100 nominal bore         M         83         Image: Complete with all fittings, pipe system these covering with system concrete supports and thrust blocks generally as per required and approved.         Image: Complete with all fittings         Image: Complete with all fittings           345         Excavation upto hard murram as per general profiles and back filling per required and approved.         Image: Complete with all fittings         Image: Complete with all fittings         Image: Complete with all fittings           346         Bionominal bore         Each         Image: Complete with all fittings         Image: Complete	340	diameter sluice valve, 1 No. 150mm dia. Non-return valve and wall	Set	o		
mentioned components. as per IS code.     Image: Code Components as per IS code.       Providing, installing, testing & commisioning of fire brigade draw out connection (fire department connection) with suction pipe NS class 'C'     Set     0       311     100 mm dia. 40 00 mm dia. foot valve & stele chain including wall mounted box MS. construction with glass door to house the above mentioned components.     Set     0       324     Supply, fabrication & laying heavy grade IS marked black mild steel piping complete with all fittings, pipe supports, clamps etc. as approved with wedded joining for external hydran tsystem. Thes pipes shall be provided with 2 wetternal hydran tsystem. Thes pipes shall be provided on the for external hydran tsystem. Thes pipes shall be provided on the for external hydran tsystem. Thes pipes shall be provided on the for external hydran tsystem. Thes pipes shall be provided and approved.       343     150 nominal bore     M     200       344     100 nominal bore     M     33       345     Exavation upto hard murram as per general profiles and back filling     Meter     281       346     Biz for non-return valve IS marked with flanges generally as specified all complete.     CUM     38       347     Supply and installation of Butterfly Valves with mating flanges generally as specified all complete.     Each     6       348     100 nominal bore     Each     6     100 nominal bore       348     100 nominal bore     Each     6       349     100 nominal bore <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td></td<>						
Providing, installing, testing & commisioning of fire brigade draw out connection (lite department connection) with suction pipe MS class (C) 100 mm dia. 8 100 mm dia. foot avake stele chain including wall mounted box MS. construction with glass door to house the above mentioned components.       0         State       0         Supply, Tabrication & laying heavy grade IS marked black mild steel piping complete with all fitnes, pipe supports, clamps et as a pproved with 2mm thick weather proof treatment like covering with veghted complete.       M         100 nominal bore       M       200         101 nominal bore       M       200         102 nominal bore       M       200         103 nominal bore       M       83         104 nominal bore       M       200         105 nominal bore       M       200         104 nominal bore       M       200         105 nominal bore       M       200         106 nominal bore       M       200         108 per required and approved.       UM       38         109 nominal bore       Each       8         100 nominal bore       Each       8         100 nominal bore       Each       0         100 nominal bore       Each       0         1150 nominal bore       Each       0         1150 nominal bore		8				
connection (life department connection) with suction pipe MS class (C')       Set       0         100 mm dia. 8 100 mm dia. 500 wake steel chain including wall mounted box MS. construction with glass door to house the above mentioned componenets.       0         314       Supply, fabrication & laying heavy grade IS marked black mild steel piping complete with all fittings, pipe supports, clamps etc. as approved with weleade jointing for external hydran system. Thes pipes shall be weleade jointing for external hydran system. Thes pipes shall be weleade jointing for external hydran system. Thes pipes shall be weleade jointing for external hydran system. Thes pipes shall be weleade jointing for external hydran system. Thes pipes shall be weleade jointing for external hydran system. Thes pipes shall be weleade jointing for external hydran system. Thes pipes shall be weleade jointing for external hydran system. Thes pipes shall be weleade jointing for external hydran system. Thes pipes shall be weleade jointing for external hydran system. Thes pipes shall be weleade jointing for external hydran system. Thes pipes shall be weleade jointing for external hydran system. Thes pipes shall be weleade jointing for external hydran system. Thes pipes shall be weleade jointing for external hydran system. Thes pipes shall be weleade jointing for external hydran system. Thes pipes shall be weleade jointing for external hydran system. Thes pipes shall be weleade jointing for external hydran system. Thes pipes shall be weleade jointing for external hydran system. These pipes hall be weleade jointing for external hydran system. These pipes hall be weleade jointing for the system.       Meter 281         345       Excavation up to hard murram as per general profiles and back filling       Meter 281       Meter 281         346 <td></td> <td></td> <td></td> <td></td> <td>1</td> <td>1</td>					1	1
connection (life department connection) with suction pipe MS class (C')       Set       0         100 mm dia. 8 100 mm dia. 500 wake steel chain including wall mounted box MS. construction with glass door to house the above mentioned componenets.       0         314       Supply, fabrication & laying heavy grade IS marked black mild steel piping complete with all fittings, pipe supports, clamps etc. as approved with weleade jointing for external hydran system. Thes pipes shall be weleade jointing for external hydran system. Thes pipes shall be weleade jointing for external hydran system. Thes pipes shall be weleade jointing for external hydran system. Thes pipes shall be weleade jointing for external hydran system. Thes pipes shall be weleade jointing for external hydran system. Thes pipes shall be weleade jointing for external hydran system. Thes pipes shall be weleade jointing for external hydran system. Thes pipes shall be weleade jointing for external hydran system. Thes pipes shall be weleade jointing for external hydran system. Thes pipes shall be weleade jointing for external hydran system. Thes pipes shall be weleade jointing for external hydran system. Thes pipes shall be weleade jointing for external hydran system. Thes pipes shall be weleade jointing for external hydran system. Thes pipes shall be weleade jointing for external hydran system. Thes pipes shall be weleade jointing for external hydran system. Thes pipes shall be weleade jointing for external hydran system. Thes pipes shall be weleade jointing for external hydran system. These pipes hall be weleade jointing for external hydran system. These pipes hall be weleade jointing for the system.       Meter 281         345       Excavation up to hard murram as per general profiles and back filling       Meter 281       Meter 281         346 <td></td> <td>Providing installing testing &amp; commisioning of fire bridged draw out</td> <td></td> <td></td> <td></td> <td></td>		Providing installing testing & commisioning of fire bridged draw out				
341     100 mm dia. & 100 mm dia. foot valve & steel chain including wall mounted box M.S. construction with glass door to house the above mentioned componenets.     Set     0       Supply, flabrication & laying heavy grade IS marked black mild steel piping complete with all fittings, pipe supports, clamps etc. as approved with welded jointing for valena hydrart system. Thes pipes shall be provided with 2mm thick weather proof treatment like covering with pypkote complete.     M     200       343     100 nominal bore     M     83       344     100 nominal bore     M     83       345     Excavation upto hard murram as per general profiles and back filling per required and approved.     Weter     281       346     Making 1:2:4 cement concrete supports and thrust blocks generally as per required and approved.     Set     0       347     Supply and installation of Butterfly Valves with mating flanges generally as specified all complete.     Set     0       350     Providing and laying cast iron non-return valve IS marked with flanges generally as specified complete.     Each     6       351     Supply, installation testing and commissioning double flanged MS pot atrainers with M.S. body and SS 40-grade mesh strainer.     Each     6       352     Supply, installation testing and commissioning CJ. flanged double air valves size 25mm with 25mm SS isolation valve etc. all complete.     6       354     Supply, installation testing and commissioning CJ. flanged double air valves size 25mm with 25mm SS isolation valve etc. all comple						
mounted box M.S. construction with glass door to house the above         mounted components.           Supply, fabrication & laying heavy grade IS marked black mild steel ping complete with all fittings, pipe supports, clamps etc. as approved with weleded jointing for external hydrant system. Thes pipes shall be provided with zmm thick weather proof treatment like covering with pryckate complete.         M         200           130         150 nominal bore         M         200         161           440         Mininal bore         M         200         161           450         Excavation upto hard murram as per general profiles and back filling         Meter         281         161           461         Making 1:2:4 cement concrete supports and thrust blocks generally as specified and approved.         CUM         38         161           473         Supply and installation of Butterfly Valves with mating flanges generally as specified all complete.         28ch         160         161           474         Supply and installation of approved.         Each         0         160         160           475         Supply and installation of Butterfly Valves with mating flanges generally as specified all complete.         160         160         160         160         160         160         160         160         160         160         160         160         160         160         160	0.44			-		
mentioned componenets.	341		Set	0		
Supply, fabrication & laying heavy grade IS marked black mild steel         Image: Complete with all fittings, pipe supports, clamps etc. as approved           342         with welded jointing for external hydrart system. These pipes shall be provided with 2mm thick weather proof treatment like covering with pypkote complete.         M         200           343         150 nominal bore         M         200         Image: Complete with all fittings, pipe supports, clamps at the system. These pipes shall be provided with 2mm thick weather proof treatment like covering with pypkote complete.         M         200           344         100 nominal bore         M         83         Image: Complete with all fittings, pipe supports, clamps at the system. These pipes shall be provided with 2mm thick weather proof treatment like covering with pypkote with and provide generally as perficient all complete.         M         200           346         Excavation upto hard murram as per general profiles and back filling         Meter         281         Image: Cum all system. These pipes shall be per required and approved.         Image: Cum all system. These pipes shall be per required and approved.         Image: Cum all system. These pipes pipes shall be per required and approved.         Image: Cum all system. These pipes		5				
piping complete with all fittings, pipe supports, clamps etc. as approved         342       with welded jointing for external hydrant system. Thes pipes shall be provided with 2mm thick weather proof treatment like covering with pypkote complete.       200         343       150 norminal bore       M       200         344       100 norminal bore       M       83         345       Excavation upto hard murram as per general profiles and back filling       Meter       281         346       main system. This system.		mentioned componenets.				
piping complete with all fittings, pipe supports, clamps etc. as approved         342       with welded jointing for external hydrant system. Thes pipes shall be provided with 2mm thick weather proof treatment like covering with pypkote complete.       200         343       150 norminal bore       M       200         344       100 norminal bore       M       83         345       Excavation upto hard murram as per general profiles and back filling       Meter       281         346       main system. This system.						
piping complete with all fittings, pipe supports, clamps etc. as approved         342       with welded jointing for external hydrant system. Thes pipes shall be provided with 2mm thick weather proof treatment like covering with pypkote complete.       200         343       150 norminal bore       M       200         344       100 norminal bore       M       83         345       Excavation upto hard murram as per general profiles and back filling       Meter       281         346       main system. This system.						
piping complete with all fittings, pipe supports, clamps etc. as approved         342       with welded jointing for external hydrant system. Thes pipes shall be provided with 2mm thick weather proof treatment like covering with pypkote complete.       200         343       150 norminal bore       M       200         344       100 norminal bore       M       83         345       Excavation upto hard murram as per general profiles and back filling       Meter       281         346       main system. This system.		Supply, fabrication & laying heavy grade IS marked black mild steel				
342       with weleded jointing for external hydrart system. Thes pipes shall be provided with 2mm thick weather proof treatment like covering with prypkote complete.       M       200         343       150 nominal bore       M       83       ——————————————————         344       100 nominal bore       M       83       —————————————         345       Excavation upto hard murram as per general profiles and back filling       Meter       281       —         346       Excavation upto hard murram as per general profiles and back filling       Meter       281       —       =						
provided with 2mm thick weather proof treatment like covering with proble complete. 150 nominal bore 150 nom nominal bore 15	342					
pypkote complete.       M       200         343       150 nominal bore       M       83         344       100 nominal bore       M       83         345       Excavation upto hard murram as per general profiles and back filling       Meter       281         346       Making 1:2:4 cement concrete supports and thrust blocks generally as per required and approved.       CUM       38         347       Supply and installation of Butterfly Valves with mating flanges generally as specified all complete.       Each       8         348       150 nominal bore       Each       8          349       100 nominal bore       Each       8          349       100 nominal bore       Each       6           349       150 nominal bore       Each       6            340       100 nominal bore       Each       6	0.2					
431       150 nominal bore       M       200         344       100 nominal bore       M       83         345       Excavation upto hard murram as per general profiles and back filling       Meter       281         346       Excavation upto hard murram as per general profiles and back filling       Meter       281         346       Making 1:2:4 cement concrete supports and thrust blocks generally as per required and approved.       38         347       Supply and installation of Butterfly Valves with mating flanges generally as specified all complete.       38         348       160 nominal bore       Each       8         340       100 nominal bore       Each       0         341       100 nominal bore       Each       0         343       160 nominal bore       Each       0       0         344       100 nominal bore       Each       0       0       0         350       genertally as specified complete.       160 nominal bore       Each       0       0       0         351       160 nominal bore       Each       0       0       0       0       0         353       supply, installation testing and commissioning double flanged MS pot strainer.       Supply, installation, testing and commissioning C.I. flanged double air valve		· · · · ·				
M     83       100 nominal bore     M     83       445     Excavation upto hard murram as per general profiles and back filling     Meter     281       346     Making 1:2:4 coment concrete supports and thrust blocks generally as per required and approved.     CUM     38       347     Supply and installation of Butterfly Valves with mating flanges generally as specified all complete.     Supply and installation of Butterfly Valves with mating flanges generally as specified all complete.     Supply and installation on non-return valve IS marked with flanges generally as specified complete.       350     Providing and laying cast iron non-return valve IS marked with flanges generally as specified complete.     Each     6       351     150 nominal bore     Each     6       352     100 nominal bore     Each     6       353     Supply, installation testing and commissioning double flanged MS pot strahers with M.S. body and SS 40-grade mesh strainer.     Each     6       354     Supply, installation, testing and commissioning C.I. flanged double air valves size 25mm with 25mm SS isolation valve etc. all complete.     6       355     Supply, fabrication & laying heavy grade (Class C) IS marked black mild steel piping complete with all forged fittings, pipe supports, clamps, painting etc. as a approved with threaded and welded jointing for Wet Riser System.     9       356     Supply, fabrication & laying heavy grade (Class C)     RM     0       356     Supply f		nynkote complete				
345       Excavation upto hard murram as per general profiles and back filling       Meter       281         346       Making 1:2:4 cement concrete supports and thrust blocks generally as per required and approved.       CUM       38         347       Supply and installation of Butterfly Valves with mating flanges generally as specified all complete.       CUM       38         348       100 nominal bore       Each       8         350       generally as specified complete.       Each       6         351       150 nominal bore       Each       6         350       porterally as specified complete.       Each       6         351       150 nominal bore       Each       6       100 nominal bore         353       specified complete.       Each       6       100 nominal bore         354       Supply, installation testing and commissioning double flanged MS pot strainers with M.S. body and SS 40-grade mesh strainer.       Supply, installation, testing and commissioning C.I. flanged double air valves size 150mm       Each       6         355       valves size 25mm with 25mm SS isolation valve etc. all complete.       Each       6       100         356       painting etc. as approved with threaded and welded jointing for Wet Riser System.       Supply, fabrication & laying heavy grade (Class C) IS marked black mild steel piping complete with all forged fittings, pipe	212		м	200		
Making 1:2:4 cement concrete supports and thrust blocks generally as per required and approved.       CUM       38         346       Making 1:2:4 cement concrete supports and thrust blocks generally as per required and approved.       CUM       38         347       Supply and installation of Butterfly Valves with mating flanges generally as specified all complete.       Image: Complete in the		150 nominal bore				
Making 1:2:4 cement concrete supports and thrust blocks generally as per required and approved.       CUM       38         346       Making 1:2:4 cement concrete supports and thrust blocks generally as per required and approved.       CUM       38         347       Supply and installation of Butterfly Valves with mating flanges generally as specified all complete.       Image: Complete in the		150 nominal bore				
346       Making 1:2:4 cement concrete supports and thrust blocks generally as per required and approved.       38         347       Supply and installation of Butterfly Valves with mating flanges generally as specified all complete.       38         348       150 nominal bore       Each       8         349       100 nominal bore       Each       8         340       100 nominal bore       Each       8         341       150 nominal bore       Each       0         342       100 nominal bore       Each       0         343       100 nominal bore       Each       0         344       100 nominal bore       Each       0         345       100 nominal bore       Each       0         346       100 nominal bore       Each       0       0         351       150 nominal bore       Each       0       0       0         352       Supply, installation testing and commissioning double flanged MS pot strainers with M.S. body and SS 40-grade mesh strainer.       Each       6       0       0         355       valves size 25mm with 25mm SS isolation valve etc. all complete.       Each       6       0       0         355       valves size 25mm with 25mm SS isolation valve etc. all complete.       Each <t< td=""><td></td><td>150 nominal bore 100 nominal bore</td><td></td><td></td><td></td><td></td></t<>		150 nominal bore 100 nominal bore				
346       per required and approved.       COM       38         347       Supply and installation of Butterfly Valves with mating flanges generally as specified all complete.       Image: Complete installation of Butterfly Valves with mating flanges generally as specified all complete.       Image: Complete installation of Butterfly Valves with mating flanges generally as specified all complete.         349       100 nominal bore       Each       8         350       Providing and laying cast iron non-return valve IS marked with flanges generally as specified complete.       Image: Complete installation testing and complete.       Image: Complete installation testing and commissioning double flanged MS pot strainers with M.S. body and SS 40-grade mesh strainer.       Each       6         351       Supply, installation, testing and commissioning C.I. flanged double air valves size 25mm with 25mm SS isolation valve etc. all complete.       Each       6         352       valves size 25mm with 25mm SS isolation valve etc. all complete.       Each       6       Image: Complete installation testing and commissioning for Wet Riser System.         354       Supply, fabrication & laying heavy grade (Class C) IS marked black mild site piping complete with all forged fittings, pipe supports, clamps, painting etc. as approved with threaded and welded jointing for Wet Riser System.       Image: Class C)       Image:	344	150 nominal bore 100 nominal bore	M	83		
346       per required and approved.       COM       38         347       Supply and installation of Butterfly Valves with mating flanges generally as specified all complete.       Image: Complete installation of Butterfly Valves with mating flanges generally as specified all complete.       Image: Complete installation of Butterfly Valves with mating flanges generally as specified all complete.         349       100 nominal bore       Each       8         350       Providing and laying cast iron non-return valve IS marked with flanges generally as specified complete.       Image: Complete installation testing and complete.       Image: Complete installation testing and commissioning double flanged MS pot strainers with M.S. body and SS 40-grade mesh strainer.       Each       6         351       Supply, installation, testing and commissioning C.I. flanged double air valves size 25mm with 25mm SS isolation valve etc. all complete.       Each       6         352       valves size 25mm with 25mm SS isolation valve etc. all complete.       Each       6       Image: Complete installation testing and commissioning for Wet Riser System.         354       Supply, fabrication & laying heavy grade (Class C) IS marked black mild site piping complete with all forged fittings, pipe supports, clamps, painting etc. as approved with threaded and welded jointing for Wet Riser System.       Image: Class C)       Image:	344	150 nominal bore 100 nominal bore	M	83		
Ber required and approved.       Image: Complex stress of the stress of th	344	150 nominal bore 100 nominal bore Excavation upto hard murram as per general profiles and back filling	M	83		
347       as specified all complete.       Each       8         150 nominal bore       Each       0         349       100 nominal bore       Each       0         350       genertally as specified complete.	344 345	150 nominal bore 100 nominal bore Excavation upto hard murram as per general profiles and back filling	M Meter	83 281		
347       as specified all complete.       Each       8         150 nominal bore       Each       0         349       100 nominal bore       Each       0         350       genertally as specified complete.	344 345	150 nominal bore 100 nominal bore Excavation upto hard murram as per general profiles and back filling Making 1:2:4 cement concrete supports and thrust blocks generally as	M Meter	83 281		
347       as specified all complete.       Each       8         150 nominal bore       Each       0         349       100 nominal bore       Each       0         350       genertally as specified complete.	344 345	150 nominal bore 100 nominal bore Excavation upto hard murram as per general profiles and back filling Making 1:2:4 cement concrete supports and thrust blocks generally as	M Meter	83 281		
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349       100 nominal bore       Each       0         350       Providing and laying cast iron non-return valve IS marked with flanges genertally as specified complete.	344 345 346	150 nominal bore 100 nominal bore Excavation upto hard murram as per general profiles and back filling Making 1:2:4 cement concrete supports and thrust blocks generally as per required and approved. Supply and installation of Butterfly Valves with mating flanges generally	M Meter	83 281		
350       Providing and laying cast iron non-return valve IS marked with flanges genertally as specified complete.         351       150 nominal bore       Each       6         352       100 nominal bore       Each       0         353       Supply, installation testing and commissioning double flanged MS pot strainers with M.S. body and SS 40-grade mesh strainer.       5         354       Size 150mm       Each       6         355       valves size 25mm with 25mm SS isolation valve etc. all complete.       Each       6         356       Supply, fabrication & laying heavy grade (Class C) IS marked black mild steel piping complete with all forged fittings, pipe supports, clamps, painting etc. as approved with threaded and welded jointing for Wet Riser System.       5         357       Note: a. Threaded joint upto 50mm diameter pipe.       5         358       b. Welded joint above 50mm diameter pipe.       5         359       200 mm nominal bore (Class C)       RM       0         361       100 mm nominal bore (Class C)       RM       45	344 345 346 347	150 nominal bore 100 nominal bore Excavation upto hard murram as per general profiles and back filling Making 1:2:4 cement concrete supports and thrust blocks generally as per required and approved. Supply and installation of Butterfly Valves with mating flanges generally as specified all complete.	M Meter CUM	83 281 38		
350       genertally as specified complete.       Each       6         351       150 nominal bore       Each       6         352       100 nominal bore       Each       0         353       Supply, installation testing and commissioning double flanged MS pot strainers with M.S. body and SS 40-grade mesh strainer.       Image: Complete interval in the interval i	344 345 346 347 348	150 nominal bore 100 nominal bore Excavation upto hard murram as per general profiles and back filling Making 1:2:4 cement concrete supports and thrust blocks generally as per required and approved. Supply and installation of Butterfly Valves with mating flanges generally as specified all complete. 150 nominal bore	M Meter CUM Each	83 281 38 8		
350       genertally as specified complete.       Each       6         351       150 nominal bore       Each       6         352       100 nominal bore       Each       0         353       Supply, installation testing and commissioning double flanged MS pot strainers with M.S. body and SS 40-grade mesh strainer.       Image: Complete interval in the interval i	344 345 346 347 348	150 nominal bore 100 nominal bore Excavation upto hard murram as per general profiles and back filling Making 1:2:4 cement concrete supports and thrust blocks generally as per required and approved. Supply and installation of Butterfly Valves with mating flanges generally as specified all complete. 150 nominal bore	M Meter CUM Each	83 281 38 8		
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352       100 nominal bore       Each       0         353       Supply, installation testing and commissioning double flanged MS pot strainers with M.S. body and SS 40-grade mesh strainer.       Image: Supply installation testing and commissioning C.I. flanged double air valves size 150mm       Each       6         354       Supply, installation, testing and commissioning C.I. flanged double air valves size 25mm with 25mm SS isolation valve etc. all complete.       Each       6         355       Supply, fabrication & laying heavy grade (Class C) IS marked black mild steel piping complete with all forged fittings, pipe supports, clamps, painting etc. as approved with threaded and welded jointing for Wet Riser System.       Image: Supple Supple Supple Supports Supple Supple Supports Supple S	344 345 346 347 348 349	150 nominal bore 100 nominal bore Excavation upto hard murram as per general profiles and back filling Making 1:2:4 cement concrete supports and thrust blocks generally as per required and approved. Supply and installation of Butterfly Valves with mating flanges generally as specified all complete. 150 nominal bore 100 nominal bore Providing and laying cast iron non-return valve IS marked with flanges	M Meter CUM Each	83 281 38 8		
353       Supply, installation testing and commissioning double flanged MS pot strainers with M.S. body and SS 40-grade mesh strainer.       Image: Common testing and commissioning C.I. flanged MS pot strainers with M.S. body and SS 40-grade mesh strainer.         354       Size 150mm       Each       6         355       Supply, installation, testing and commissioning C.I. flanged double air valves size 25mm with 25mm SS isolation valve etc. all complete.       Each       6         355       Supply, fabrication & laying heavy grade (Class C) IS marked black mild steel piping complete with all forged fittings, pipe supports, clamps, painting etc. as approved with threaded and welded jointing for Wet Riser System.       Image: Common testing t	344 345 346 347 348 349 350	150 nominal bore 100 nominal bore Excavation upto hard murram as per general profiles and back filling Making 1:2:4 cement concrete supports and thrust blocks generally as per required and approved. Supply and installation of Butterfly Valves with mating flanges generally as specified all complete. 150 nominal bore 100 nominal bore Providing and laying cast iron non-return valve IS marked with flanges genertally as specified complete.	M Meter CUM Each Each	83 281 38 8 0		
353       strainers with M.S. body and SS 40-grade mesh strainer.         354       Size 150mm       Each       6         355       Supply, installation, testing and commissioning C.I. flanged double air valves size 25mm with 25mm SS isolation valve etc. all complete.       Each       6         355       Supply, fabrication & laying heavy grade (Class C) IS marked black mild steel piping complete with all forged fittings, pipe supports, clamps, painting etc. as approved with threaded and welded jointing for Wet Riser System.       Supply for the support of the	<ul> <li>344</li> <li>345</li> <li>346</li> <li>347</li> <li>348</li> <li>349</li> <li>350</li> <li>351</li> </ul>	150 nominal bore 100 nominal bore Excavation upto hard murram as per general profiles and back filling Making 1:2:4 cement concrete supports and thrust blocks generally as per required and approved. Supply and installation of Butterfly Valves with mating flanges generally as specified all complete. 150 nominal bore Providing and laying cast iron non-return valve IS marked with flanges genertally as specified complete. 150 nominal bore	M Meter CUM Each Each Each	83 281 38 8 0 6		
353       strainers with M.S. body and SS 40-grade mesh strainer.         354       Size 150mm       Each       6         355       Supply, installation, testing and commissioning C.I. flanged double air valves size 25mm with 25mm SS isolation valve etc. all complete.       Each       6         355       Supply, fabrication & laying heavy grade (Class C) IS marked black mild steel piping complete with all forged fittings, pipe supports, clamps, painting etc. as approved with threaded and welded jointing for Wet Riser System.       Supply for the support of the	<ul> <li>344</li> <li>345</li> <li>346</li> <li>347</li> <li>348</li> <li>349</li> <li>350</li> <li>351</li> </ul>	150 nominal bore 100 nominal bore Excavation upto hard murram as per general profiles and back filling Making 1:2:4 cement concrete supports and thrust blocks generally as per required and approved. Supply and installation of Butterfly Valves with mating flanges generally as specified all complete. 150 nominal bore Providing and laying cast iron non-return valve IS marked with flanges genertally as specified complete. 150 nominal bore	M Meter CUM Each Each Each	83 281 38 8 0 6		
353       strainers with M.S. body and SS 40-grade mesh strainer.         354       Size 150mm       Each       6         355       Supply, installation, testing and commissioning C.I. flanged double air valves size 25mm with 25mm SS isolation valve etc. all complete.       Each       6         355       Supply, fabrication & laying heavy grade (Class C) IS marked black mild steel piping complete with all forged fittings, pipe supports, clamps, painting etc. as approved with threaded and welded jointing for Wet Riser System.       Supply for the support of the	<ul> <li>344</li> <li>345</li> <li>346</li> <li>347</li> <li>348</li> <li>349</li> <li>350</li> <li>351</li> </ul>	150 nominal bore 100 nominal bore Excavation upto hard murram as per general profiles and back filling Making 1:2:4 cement concrete supports and thrust blocks generally as per required and approved. Supply and installation of Butterfly Valves with mating flanges generally as specified all complete. 150 nominal bore Providing and laying cast iron non-return valve IS marked with flanges genertally as specified complete. 150 nominal bore	M Meter CUM Each Each Each	83 281 38 8 0 6		
354       Size 150mm       Each       6         Supply, installation, testing and commissioning C.I. flanged double air valves size 25mm with 25mm SS isolation valve etc. all complete.       Each       6         355       Supply, fabrication & laying heavy grade (Class C) IS marked black mild steel piping complete with all forged fittings, pipe supports, clamps, painting etc. as approved with threaded and welded jointing for Wet Riser System.       6         357       Note: a. Threaded joint upto 50mm diameter pipe.       0         358       b. Welded joint above 50mm diameter pipe.       0         359       200 mm nominal bore (Class C)       RM       0         360       150 mm nominal bore (Class C)       RM       45         361       100 mm nominal bore (Class C)       RM       238	344 345 346 347 348 349 350 351 352	150 nominal bore 100 nominal bore Excavation upto hard murram as per general profiles and back filling Making 1:2:4 cement concrete supports and thrust blocks generally as per required and approved. Supply and installation of Butterfly Valves with mating flanges generally as specified all complete. 150 nominal bore 100 nominal bore Providing and laying cast iron non-return valve IS marked with flanges genertally as specified complete. 150 nominal bore 100 nominal bore 100 nominal bore	M Meter CUM Each Each Each	83 281 38 8 0 6		
355       Supply, installation, testing and commissioning C.I. flanged double air valves size 25mm with 25mm SS isolation valve etc. all complete.       Each       6         355       Supply, fabrication & laying heavy grade (Class C) IS marked black mild steel piping complete with all forged fittings, pipe supports, clamps, painting etc. as approved with threaded and welded jointing for Wet Riser System.       6         357       Note: a. Threaded joint upto 50mm diameter pipe.       5         358       b. Welded joint above 50mm diameter pipe.       5         359       200 mm nominal bore (Class C)       RM       0         360       150 mm nominal bore (Class C)       RM       45         361       100 mm nominal bore (Class C)       RM       238	344 345 346 347 348 349 350 351 352	150 nominal bore 100 nominal bore Excavation upto hard murram as per general profiles and back filling Making 1:2:4 cement concrete supports and thrust blocks generally as per required and approved. Supply and installation of Butterfly Valves with mating flanges generally as specified all complete. 150 nominal bore 100 nominal bore Providing and laying cast iron non-return valve IS marked with flanges genertally as specified complete. 150 nominal bore 100 nominal bore 100 nominal bore 100 nominal bore Supply, installation testing and commissioning double flanged MS pot	M Meter CUM Each Each Each	83 281 38 8 0 6		
355       valves size 25mm with 25mm SS isolation valve etc. all complete.       Each       6         356       Supply, fabrication & laying heavy grade (Class C) IS marked black mild steel piping complete with all forged fittings, pipe supports, clamps, painting etc. as approved with threaded and welded jointing for Wet Riser System.       6         357       Note: a. Threaded joint upto 50mm diameter pipe.       0         358       b. Welded joint above 50mm diameter pipe.       0         359       200 mm nominal bore (Class C)       RM       0         360       150 mm nominal bore (Class C)       RM       45         361       100 mm nominal bore (Class C)       RM       238	<ul> <li>344</li> <li>345</li> <li>346</li> <li>347</li> <li>348</li> <li>349</li> <li>350</li> <li>351</li> <li>352</li> <li>353</li> </ul>	150 nominal bore 100 nominal bore 100 nominal bore Excavation upto hard murram as per general profiles and back filling Making 1:2:4 cement concrete supports and thrust blocks generally as per required and approved. Supply and installation of Butterfly Valves with mating flanges generally as specified all complete. 150 nominal bore 100 nominal bore Providing and laying cast iron non-return valve IS marked with flanges genertally as specified complete. 150 nominal bore 100 nominal bore 100 nominal bore Supply, installation testing and commissioning double flanged MS pot strainers with M.S. body and SS 40-grade mesh strainer.	M Meter CUM Each Each Each Each	83 281 38 8 0 6 0		
355       valves size 25mm with 25mm SS isolation valve etc. all complete.       Each       6         356       Supply, fabrication & laying heavy grade (Class C) IS marked black mild steel piping complete with all forged fittings, pipe supports, clamps, painting etc. as approved with threaded and welded jointing for Wet Riser System.       6         357       Note: a. Threaded joint upto 50mm diameter pipe.       0         358       b. Welded joint above 50mm diameter pipe.       0         359       200 mm nominal bore (Class C)       RM       0         360       150 mm nominal bore (Class C)       RM       45         361       100 mm nominal bore (Class C)       RM       238	<ul> <li>344</li> <li>345</li> <li>346</li> <li>347</li> <li>348</li> <li>349</li> <li>350</li> <li>351</li> <li>352</li> <li>353</li> </ul>	150 nominal bore 100 nominal bore 100 nominal bore Excavation upto hard murram as per general profiles and back filling Making 1:2:4 cement concrete supports and thrust blocks generally as per required and approved. Supply and installation of Butterfly Valves with mating flanges generally as specified all complete. 150 nominal bore 100 nominal bore Providing and laying cast iron non-return valve IS marked with flanges genertally as specified complete. 150 nominal bore 100 nominal bore 100 nominal bore Supply, installation testing and commissioning double flanged MS pot strainers with M.S. body and SS 40-grade mesh strainer.	M Meter CUM Each Each Each Each	83 281 38 8 0 6 0		
Supply, fabrication & laying heavy grade (Class C) IS marked black mild         356         Supply, fabrication & laying heavy grade (Class C) IS marked black mild         steel piping complete with all forged fittings, pipe supports, clamps,         painting etc. as approved with threaded and welded jointing for Wet Riser         System.         357         Note: a. Threaded joint upto 50mm diameter pipe.         358         b. Welded joint above 50mm diameter pipe.         359         200 mm nominal bore (Class C)         150 mm nominal bore (Class C)         RM       0         361       100 mm nominal bore (Class C)         RM       238	<ul> <li>344</li> <li>345</li> <li>346</li> <li>347</li> <li>348</li> <li>349</li> <li>350</li> <li>351</li> <li>352</li> <li>353</li> </ul>	150 nominal bore 100 nominal bore 100 nominal bore Excavation upto hard murram as per general profiles and back filling Making 1:2:4 cement concrete supports and thrust blocks generally as per required and approved. Supply and installation of Butterfly Valves with mating flanges generally as specified all complete. 150 nominal bore 100 nominal bore Providing and laying cast iron non-return valve IS marked with flanges genertally as specified complete. 150 nominal bore 100 nominal bore Supply, installation testing and commissioning double flanged MS pot strainers with M.S. body and SS 40-grade mesh strainer. Size 150mm	M Meter CUM Each Each Each Each	83 281 38 8 0 6 0		
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356       painting etc. as approved with threaded and welded jointing for Wet Riser         357       Note: a. Threaded joint upto 50mm diameter pipe.         358       b. Welded joint above 50mm diameter pipe.         359       200 mm nominal bore (Class C)         360       150 mm nominal bore (Class C)         361       100 mm nominal bore (Class C)	<ul> <li>344</li> <li>345</li> <li>346</li> <li>347</li> <li>348</li> <li>349</li> <li>350</li> <li>351</li> <li>352</li> <li>353</li> <li>354</li> </ul>	150 nominal bore         100 nominal bore         100 nominal bore         Excavation upto hard murram as per general profiles and back filling         Making 1:2:4 cement concrete supports and thrust blocks generally as per required and approved.         Supply and installation of Butterfly Valves with mating flanges generally as specified all complete.         150 nominal bore         100 nominal bore         100 nominal bore         100 nominal bore         100 nominal bore         Supply, installation testing and commissioning double flanged MS pot strainers with M.S. body and SS 40-grade mesh strainer.         Size 150mm         Supply, installation, testing and commissioning C.I. flanged double air valves size 25mm with 25mm SS isolation valve etc. all complete.	M Meter CUM Each Each Each Each Each	83 281 38 8 0 6 0 6		
painting etc. as approved with threaded and welded jointing for Wet Riser	<ul> <li>344</li> <li>345</li> <li>346</li> <li>347</li> <li>348</li> <li>349</li> <li>350</li> <li>351</li> <li>352</li> <li>353</li> <li>354</li> </ul>	150 nominal bore         100 nominal bore         Excavation upto hard murram as per general profiles and back filling         Making 1:2:4 cement concrete supports and thrust blocks generally as per required and approved.         Supply and installation of Butterfly Valves with mating flanges generally as specified all complete.         150 nominal bore         100 nominal bore         150 nominal bore         100 nominal bore         101         150 nominal bore         150 nominal bore </td <td>M Meter CUM Each Each Each Each Each</td> <td>83 281 38 8 0 6 0 6</td> <td></td> <td></td>	M Meter CUM Each Each Each Each Each	83 281 38 8 0 6 0 6		
357         Note: a. Threaded joint upto 50mm diameter pipe.         Image: class clas cla	<ul> <li>344</li> <li>345</li> <li>346</li> <li>347</li> <li>348</li> <li>349</li> <li>350</li> <li>351</li> <li>352</li> <li>353</li> <li>354</li> <li>355</li> </ul>	150 nominal bore 100 nominal bore Excavation upto hard murram as per general profiles and back filling Making 1:2:4 cement concrete supports and thrust blocks generally as per required and approved. Supply and installation of Butterfly Valves with mating flanges generally as specified all complete. 150 nominal bore 100 nominal bore Providing and laying cast iron non-return valve IS marked with flanges genertally as specified complete. 150 nominal bore 100 nominal bore Supply, installation testing and commissioning double flanged MS pot strainers with M.S. body and SS 40-grade mesh strainer. Size 150mm Supply, installation, testing and commissioning C.I. flanged double air valves size 25mm with 25mm SS isolation valve etc. all complete. Supply, fabrication & laying heavy grade (Class C) IS marked black mild steel piping complete with all forged fittings, pipe supports, clamps,	M Meter CUM Each Each Each Each Each	83 281 38 8 0 6 0 6		
358       b. Welded joint above 50mm diameter pipe.         359       200 mm nominal bore (Class C)         360       150 mm nominal bore (Class C)         361       100 mm nominal bore (Class C)	<ul> <li>344</li> <li>345</li> <li>346</li> <li>347</li> <li>348</li> <li>349</li> <li>350</li> <li>351</li> <li>352</li> <li>353</li> <li>354</li> <li>355</li> </ul>	150 nominal bore 100 nominal bore Excavation upto hard murram as per general profiles and back filling Making 1:2:4 cement concrete supports and thrust blocks generally as per required and approved. Supply and installation of Butterfly Valves with mating flanges generally as specified all complete. 150 nominal bore 100 nominal bore Providing and laying cast iron non-return valve IS marked with flanges genertally as specified complete. 150 nominal bore 100 nominal bore Supply, installation testing and commissioning double flanged MS pot strainers with M.S. body and SS 40-grade mesh strainer. Size 150mm Supply, installation, testing and commissioning C.I. flanged double air valves size 25mm with 25mm SS isolation valve etc. all complete. Supply, fabrication & laying heavy grade (Class C) IS marked black mild steel piping complete with all forged fittings, pipe supports, clamps, painting etc. as approved with threaded and welded jointing for Wet Riser	M Meter CUM Each Each Each Each Each	83 281 38 8 0 6 0 6		
359         200 mm nominal bore (Class C)         RM         0           360         150 mm nominal bore (Class C)         RM         45           361         100 mm nominal bore (Class C)         RM         238	<ul> <li>344</li> <li>345</li> <li>346</li> <li>347</li> <li>348</li> <li>349</li> <li>350</li> <li>351</li> <li>352</li> <li>353</li> <li>354</li> <li>355</li> <li>356</li> </ul>	150 nominal bore 100 nominal bore Excavation upto hard murram as per general profiles and back filling Making 1:2:4 cement concrete supports and thrust blocks generally as per required and approved. Supply and installation of Butterfly Valves with mating flanges generally as specified all complete. 150 nominal bore 100 nominal bore Providing and laying cast iron non-return valve IS marked with flanges genertally as specified complete. 150 nominal bore 100 nominal bore 100 nominal bore Supply, installation testing and commissioning double flanged MS pot strainers with M.S. body and SS 40-grade mesh strainer. Size 150mm Supply, installation, testing and commissioning C.I. flanged double air valves size 25mm with 25mm SS isolation valve etc. all complete. Supply, fabrication & laying heavy grade (Class C) IS marked black mild steel piping complete with all forged fittings, pipe supports, clamps, painting etc. as approved with threaded and welded jointing for Wet Riser System.	M Meter CUM Each Each Each Each Each	83 281 38 8 0 6 0 6		
360         150 mm nominal bore (Class C)         RM         45           361         100 mm nominal bore (Class C)         RM         238	<ul> <li>344</li> <li>345</li> <li>346</li> <li>347</li> <li>348</li> <li>349</li> <li>350</li> <li>351</li> <li>352</li> <li>353</li> <li>354</li> <li>355</li> <li>356</li> <li>357</li> </ul>	150 nominal bore 100 nominal bore Excavation upto hard murram as per general profiles and back filling Making 1:2:4 cement concrete supports and thrust blocks generally as per required and approved. Supply and installation of Butterfly Valves with mating flanges generally as specified all complete. 150 nominal bore 100 nominal bore Providing and laying cast iron non-return valve IS marked with flanges genertally as specified complete. 150 nominal bore 100 nominal bore Supply, installation testing and commissioning double flanged MS pot strainers with M.S. body and SS 40-grade mesh strainer. Size 150mm Supply, installation, testing and commissioning C.I. flanged double air valves size 25mm with 25mm SS isolation valve etc. all complete. Supply, fabrication & laying heavy grade (Class C) IS marked black mild steel piping complete with all forged fittings, pipe supports, clamps, painting etc. as approved with threaded and welded jointing for Wet Riser System. Note: a. Threaded joint upto 50mm diameter pipe.	M Meter CUM Each Each Each Each Each	83 281 38 8 0 6 0 6		
360         150 mm nominal bore (Class C)         RM         45           361         100 mm nominal bore (Class C)         RM         238	<ul> <li>344</li> <li>345</li> <li>346</li> <li>347</li> <li>348</li> <li>349</li> <li>350</li> <li>351</li> <li>352</li> <li>353</li> <li>354</li> <li>355</li> <li>356</li> <li>357</li> </ul>	150 nominal bore 100 nominal bore Excavation upto hard murram as per general profiles and back filling Making 1:2:4 cement concrete supports and thrust blocks generally as per required and approved. Supply and installation of Butterfly Valves with mating flanges generally as specified all complete. 150 nominal bore 100 nominal bore Providing and laying cast iron non-return valve IS marked with flanges genertally as specified complete. 150 nominal bore 100 nominal bore 100 nominal bore Supply, installation testing and commissioning double flanged MS pot strainers with M.S. body and SS 40-grade mesh strainer. Size 150mm Supply, installation, testing and commissioning C.I. flanged double air valves size 25mm with 25mm SS isolation valve etc. all complete. Supply, fabrication & laying heavy grade (Class C) IS marked black mild steel piping complete with all forged fittings, pipe supports, clamps, painting etc. as approved with threaded and welded jointing for Wet Riser System. Note: a. Threaded joint upto 50mm diameter pipe. b. Welded joint above 50mm diameter pipe.	M Meter CUM Each Each Each Each Each	83 281 38 8 0 6 0 6		
361         100 mm nominal bore (Class C)         RM         238	<ul> <li>344</li> <li>345</li> <li>346</li> <li>347</li> <li>348</li> <li>349</li> <li>350</li> <li>351</li> <li>352</li> <li>353</li> <li>354</li> <li>355</li> <li>356</li> <li>357</li> <li>358</li> </ul>	150 nominal bore 100 nominal bore Excavation upto hard murram as per general profiles and back filling Making 1:2:4 cement concrete supports and thrust blocks generally as per required and approved. Supply and installation of Butterfly Valves with mating flanges generally as specified all complete. 150 nominal bore 100 nominal bore Providing and laying cast iron non-return valve IS marked with flanges genertally as specified complete. 150 nominal bore 100 nominal bore 100 nominal bore Supply, installation testing and commissioning double flanged MS pot strainers with M.S. body and SS 40-grade mesh strainer. Size 150mm Supply, installation, testing and commissioning C.I. flanged double air valves size 25mm with 25mm SS isolation valve etc. all complete. Supply, fabrication & laying heavy grade (Class C) IS marked black mild steel piping complete with all forged fittings, pipe supports, clamps, painting etc. as approved with threaded and welded jointing for Wet Riser System. Note: a. Threaded joint upto 50mm diameter pipe. b. Welded joint above 50mm diameter pipe.	M Meter CUM Each Each Each Each Each	83 281 38 8 0 6 0 6 6 6 6		
	<ul> <li>344</li> <li>345</li> <li>346</li> <li>347</li> <li>348</li> <li>349</li> <li>350</li> <li>351</li> <li>352</li> <li>353</li> <li>354</li> <li>355</li> <li>356</li> <li>357</li> <li>358</li> <li>359</li> </ul>	150 nominal bore 100 nominal bore Excavation upto hard murram as per general profiles and back filling Making 1:2:4 cement concrete supports and thrust blocks generally as per required and approved. Supply and installation of Butterfly Valves with mating flanges generally as specified all complete. 150 nominal bore 100 nominal bore Providing and laying cast iron non-return valve IS marked with flanges genertally as specified complete. 150 nominal bore 100 nominal bore 100 nominal bore Supply, installation testing and commissioning double flanged MS pot strainers with M.S. body and SS 40-grade mesh strainer. Size 150mm Supply, installation, testing and commissioning C.I. flanged double air valves size 25mm with 25mm SS isolation valve etc. all complete. Supply, fabrication & laying heavy grade (Class C) IS marked black mild steel piping complete with all forged fittings, pipe supports, clamps, painting etc. as approved with threaded and welded jointing for Wet Riser System. Note: a. Threaded joint upto 50mm diameter pipe. b. Welded joint above 50mm diameter pipe. 200 mm nominal bore (Class C)	M Meter CUM Each Each Each Each Each Each	83 281 38 8 0 6 0 6 6 6 0 0 0 0		
	<ul> <li>344</li> <li>345</li> <li>346</li> <li>347</li> <li>348</li> <li>349</li> <li>350</li> <li>351</li> <li>352</li> <li>353</li> <li>354</li> <li>355</li> <li>356</li> <li>357</li> <li>358</li> <li>359</li> <li>360</li> </ul>	150 nominal bore         100 nominal bore         Excavation upto hard murram as per general profiles and back filling         Making 1:2:4 cement concrete supports and thrust blocks generally as per required and approved.         Supply and installation of Butterfly Valves with mating flanges generally as specified all complete.         150 nominal bore         100 nominal bore         Supply, installation testing and commissioning double flanged MS pot strainers with M.S. body and SS 40-grade mesh strainer.         Size 150mm         Supply, installation, testing and commissioning C.I. flanged double air valves size 25mm with 25mm SS isolation valve etc. all complete.         Supply, fabrication & laying heavy grade (Class C) IS marked black mild steel piping complete with all forged fittings, pipe supports, clamps, painting etc. as approved with threaded and welded jointing for Wet Riser System.         Note: a. Threaded joint upto 50mm diameter pipe.       b. Welded joint above 50mm diameter pipe.         200 mm	M Meter CUM Each Each Each Each Each Each RM	83 281 38 8 0 6 0 6 6 6 0 45		
	<ul> <li>344</li> <li>345</li> <li>346</li> <li>347</li> <li>348</li> <li>349</li> <li>350</li> <li>351</li> <li>352</li> <li>353</li> <li>354</li> <li>355</li> <li>356</li> <li>357</li> <li>358</li> <li>359</li> <li>360</li> <li>361</li> </ul>	150 nominal bore 100 nominal bore Excavation upto hard murram as per general profiles and back filling Making 1:2:4 cement concrete supports and thrust blocks generally as per required and approved. Supply and installation of Butterfly Valves with mating flanges generally as specified all complete. 150 nominal bore 100 nominal bore Providing and laying cast iron non-return valve IS marked with flanges generally as specified complete. 150 nominal bore 100 nominal bore 100 nominal bore Supply, installation testing and commissioning double flanged MS pot strainers with M.S. body and SS 40-grade mesh strainer. Size 150mm Supply, installation, testing and commissioning C.I. flanged double air valves size 25mm with 25mm SS isolation valve etc. all complete. Supply, fabrication & laying heavy grade (Class C) IS marked black mild steel piping complete with all forged fittings, pipe supports, clamps, painting etc. as approved with threaded and welded jointing for Wet Riser System. Note: a. Threaded joint upto 50mm diameter pipe. b. Welded joint above 50mm diameter pipe. 200 mm nominal bore (Class C) 150 mm nominal bore (Class C) 150 mm nominal bore (Class C) 150 mm nominal bore (Class C)	M Meter CUM Each Each Each Each Each Each	83 281 38 8 0 6 0 6 6 6 6 0 45 238		

363	65 mm nominal bore (Class C)	RM	15	
364	25 mm nominal bore (Class C)	RM	45	
365	Supply, installation, testing and commissioning brass orifice plates in	Each	55	
000	pipelines to reduce pressure from 8 kg. to 3.5 kg/sq.cm.	Luon	00	
366	Providing & Fixing C.I.sluice valve(with cap) complete with bolts,nuts,rubber insertions etc.(the tail pieces if required will be paid	Each	6	
300	separately)	Each	O	
	separately)			
	Preparation of working drawing, getting approval from statutory/ local fire			
	authority at all stage of work including inspection of authorities, obtaining			
367	licences from authorities including incidental changes etc. complete in all	Job	1	
	respect.			
368	PORTABLE FIRE EXTINGUISHERS & EXIT SIGNAGES			
300	PORTABLE FIRE EXTINGUISHERS & EXIT SIGNAGES			
	Supply, storing, handling, shifting, installation, testing and commissioning			
369	of portable fire Extinguishers as described below:			
370	4.5 kg carbon dioxide extinguisher, IS marked, with high pressure	Each	50	
370	discharge tube, horn, control valve, CCE approved cylinder	Each	50	
	Providing & Fixing of stored pressure Fire Extinguisher ABC powder type			
	(Mono Ammonium Phosphate Powder) Magnetic Pressure Gauge having			
	the facility to check at site, Discharge Time less than 9 Secs, Controllable discharge mechanism, Range minimum 4 Meters, applicable on Class			
	A,B,C and electrically started Fire, A Rating- 21A, B Rating 55B as per			
371	BS EN-3 BIS 15683 marked, Can Construction : Deep drawn & CO2 Mig			
	welded, Valve Construction : Forging & Machining, Internal Coating of			
	Can : Epoxy Powder coating, External Coating of Can : Epoxy Polyster			
	Powder coating, Sheet metal thickness : 1.60MM, Helium LeakDetection			
	Tested, Warranty 5 Years.			
	Olym Mana ann an iorrachada (ADO) tana an taidhe			
372	6 kg Mono ammonium phosphate (ABC) type cartridge operated extinguishers	Each	50	
	exunguisners			

	electrical work					
.No	DESCRIPTION	UNIT	TOTAL QUANTITY	RATE	AMOUNT	
I	SUB HEAD (I) :- INTERNAL WIRING					
1	Point wiring in PVC conduit, with modular type switch :-					
	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 medium class PVC conduit, with modular switch,					
	modular plate, suitable GI box and earthing the point with 1.5 Sq.Mm FRLS					
	PVC insulated copper conductor single core cable etc. as required.					
	Group A	Point	0.00			
	Group B	Point	12103.00			
	Group C	Point	1061.00			
2	Twin Control Point wiring in PVC conduit, with modular type switch :-					
	Wiring for twin control light point with 1.5 Sq.Mm FRLS PVC insulated					
	copper conductor single core cable in surface/recessed medium class					
	PVC conduit, 2 way modular switch, modular plate, suitable GI box and					
	earthing the point with 1.5 Sq.Mm FRLS PVC insulated copper conductor	Delet	740.00			
3	single core cable etc. as required.	Point	748.00			
5	Power plug wiring in PVC conduit (2 x 4 Sq.Mm.) :-					
	Wiring for power plug with 2 x 4 Sq.Mm. FRLS PVC insulated, copper conductor single core cable in surface / recessed medium class PVC					
	conductor single core cable in surface / recessed medium class PVC conduit along with 1 no 4 Sq.Mm FRLS PVC insulated copper conductor					
	single core cable for loop earthing as required.	М	12320.00			
1	Circuit / Sub main wiring in PVC conduit :-					
	Wiring for circuit / submain wiring alongwith earth wire with the					
	following sizes of PVC insulated, copper conductor single core cable in					
	surface/ recessed medium class PVC conduit as required.				-	
	2 X 1.5 sq. mm + 1 X 2.5 sq. mm earth wire.	М	81100.00		-	
	2 X 2.5 sq. mm + 1 X 2.5 sq. mm earth wire.	М	44158.00			
	2 X 4 sq. mm + 1 X 4 sq. mm earth wire	М	24692.00			
	2 x 10 sq.mm. + 1 x 10 sq.mm. Earth wire	М	0.00			
	4 x 10 sq.mm. + 2 x 10 sq.mm. Earth wire	М	7500.00			
5	S/F light plug point Modular type accessories :-					
	Supply and fixing of 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	7963.00			
5	S/F power plug point modular type accessories :-	Lach	7303.00			
, ,	Supply and fixing of 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	2249.00			
7	Supplying and fixing 20 amps, 240 volts, SPN, industrial type socket outlet,					
	with 2 poles and earth metal enclosed plug top along with 20 amps. "C"					
	curve, SP MCB in sheet steel enclosure, on surface or in recess, with					
	chained metal cover for the socket outlet, and complete with connections, testing and commissioning etc. as required.					
	testing and commissioning etc. as required.					
		Each	1770.00			
3	S/F modular type electronic fan regulator :-					
	Supply and fixing of stepped type electronic fan regulator on the existing				1	
	modular plate switch box including connections but excluding modular plate	_				
	etc. as required.	Each	941.00			
)	S/F modular type blanking plate :-					
	Supply and fixing <b>modular blanking plate</b> on the existing modular plate &	Each	100.00			
	switch box excluding modular plate as required.	Each	188.00		<u> </u>	
					<u> </u>	
	TOTAL SUB HEAD (I) (DSR'2016)					
					<u> </u>	
	SUB HEAD (II) :- DISTRIBUTION BOARDS & MCB's				<u> </u>	
1	Supplying and fixing 5 amps. to 32 amps. rating, 240 volts 'C' series, miniature circuit breaker (MCB)suitable for inductive load of following					
	poles in the existing MCB DB complete with connections, testing and					
	commissioning etc. as required.					
	single pole	Each	3872.00			
2	Supplying & fixing single pole, blanking plate in the existing MCB DB		-			
	complete etc. as required.	Each	1032.00			
3	Supplying and fixing following way, prewired TP&N MCB distribution board					
	of steel sheet for 415 volts,on surface /recess, complete with loose wire					
	box, terminal connectors for all incoming and outgoing circuits, duly					
	prewired with suitable size FRLS PVC insulated copper conductor up to					
	terminal blocks, tinned copper bus bar, neutral link, earth bar, din bar, detachable gland plate, interconnections, powder painted including earthing					
	etc. as required (But without MCB / RCCB / Isolators).					
					1	

				1	
	4 way (4 + 12), Double door	Each	0.00		
	6 way (4 + 18), Double door	Each	176.00		
	8 way (4 + 24), Double door	Each	9.00		
4	Supplying and fixing following way prewired SP&N MCB distribution board				
	of steel sheet for 240 volts on surface / recess, complete with loose wire				
	box, terminal connectors for all incoming and outgoing circuits, duly				
	prewired with suitable size FRLS PVC insulated copper conductor up to				
	terminal blocks, tinned copper bus bar, neutral link, earth bar, din bar,				
	detachable gland plate bus bar, interconnections, powder painted including				
	earthing etc. as required. (But without MCB / RCCB / Isolator)				
	2 + 4 way, Double door	Each	0.00		
	2 + 8 way, Double door	Each	10.00		
5	S/F DP MCB Isolator				
	Supplying and fixing following rating, double pole, (single phase				
	and neutral), 240 V, 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.				
	63 Amps	Each	565.00		
6	S/F TP MCB Isolator				
	Supplying and fixing following rating, four pole, 415 V, isolator in the				
	existing MCB DB complete with connections, testing and commissioning				
	etc.				
	63 Amps	Each	185.00	1	
				1	
	TOTAL SUB HEAD (II) (DSR'2016)			1	
	101AL 300 MEAU (II) (U3K 2010)				
III	SUB HEAD (III) :- TELEPHONE, TELEVISION & DATA SYSTEM				
1	S/F MODULAR BOXES, BASE & COVER PLATE :-				
	Supplying and fixing following size / modules, GI box along with modular				
	base & cover plate for modular switches in recess etc as required				
	1 or 2 Module (75 mm x 75 mm)	Each	1762.00		
2	S/F MODULAR TYPE SWITCH / SOCKET :-				
	Supplying and fixing following modular switch / socket on the existing				
	modular plate & switch box including connections but excluding modular				
	plate etc as required				
	Telephone Socket outlet	Each	1058.00		
	TV Antenna socket outlet	Each	707.00		
3	Supply and fixing of following sizes of medium class PVC conduit along	24011	101100		
5	with accessories in surface/recess including cutting the wall and making				
	good the same in case of recessed conduit as required :				
	good the same in sale of recessed contain as required i				
	20 mm.	М	9772.00		
	25 mm.	M	8504.00		
4	Supply and drawing following pair, 0.5 sg.mm. FRLS PVC insulated	IVI	0504.00		
4					
	annealed copper conductor, unarmoured telephone cable in the				
	existing surface / recessed steel/ PVC conduit as required.				
	2 Pair	N.4	12054 00	1	
-		М	13954.00	-	
5	Supply 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 / recessed steel/ PVC	м	9527.00		
	conduit as required.	IVI	5521.00	+	
				+	
	TOTAL SUB HEAD (III) (DSR'2016)				
1	Providing, fixing, connecting & testing of Telephone Tag Block krone type				
	in a suitable size 1.6 mm thick dust and vermin proof Sheet steel				
	enclosure duly painted by synthetic enamel over anti corrosive primer,			1	
	lockable and hinged cover with provision for cable through glands complete				
	lockable and hinged cover with provision for cable through glands complete in all respects.				
	lockable and hinged cover with provision for cable through glands complete in all respects. 5 pair krone (Hensel - KG 9001 - size 136*253*115 mm)	Nos	177.00		
	lockable and hinged cover with provision for cable through glands complete in all respects.	Nos Nos	177.00 0.00		
	lockable and hinged cover with provision for cable through glands complete in all respects. 5 pair krone (Hensel - KG 9001 - size 136*253*115 mm)				
	lockable and hinged cover with provision for cable through glands complete in all respects. 5 pair krone (Hensel - KG 9001 - size 136*253*115 mm) 10 pair krone (Hensel - KG 9001 - size 136*253*115 mm)	Nos	0.00		
2	lockable and hinged cover with provision for cable through glands complete in all respects. 5 pair krone (Hensel - KG 9001 - size 136*253*115 mm) 10 pair krone (Hensel - KG 9001 - size 136*253*115 mm) 20 pair krone (Hensel - KG 9001 - size 136*253*115 mm)	Nos	0.00		
2	lockable and hinged cover with provision for cable through glands complete in all respects. 5 pair krone (Hensel - KG 9001 - size 136*253*115 mm) 10 pair krone (Hensel - KG 9001 - size 136*253*115 mm) 20 pair krone (Hensel - KG 9001 - size 136*253*115 mm) Supply and Erecting modular type computer jack RJ 45 ISI mark approved	Nos	0.00		
2	lockable and hinged cover with provision for cable through glands complete in all respects. 5 pair krone (Hensel - KG 9001 - size 136*253*115 mm) 10 pair krone (Hensel - KG 9001 - size 136*253*115 mm) 20 pair krone (Hensel - KG 9001 - size 136*253*115 mm)	Nos Nos	0.00		
2	lockable and hinged cover with provision for cable through glands complete in all respects. 5 pair krone (Hensel - KG 9001 - size 136*253*115 mm) 10 pair krone (Hensel - KG 9001 - size 136*253*115 mm) 20 pair krone (Hensel - KG 9001 - size 136*253*115 mm) Supply and Erecting modular type computer jack RJ 45 ISI mark approved	Nos	0.00		
	lockable and hinged cover with provision for cable through glands complete in all respects. 5 pair krone (Hensel - KG 9001 - size 136*253*115 mm) 10 pair krone (Hensel - KG 9001 - size 136*253*115 mm) 20 pair krone (Hensel - KG 9001 - size 136*253*115 mm) Supply and Erecting modular type computer jack RJ 45 ISI mark approved make with mounting plate and box with wiring connections complete.	Nos Nos	0.00		
2	lockable and hinged cover with provision for cable through glands complete in all respects. 5 pair krone (Hensel - KG 9001 - size 136*253*115 mm) 10 pair krone (Hensel - KG 9001 - size 136*253*115 mm) 20 pair krone (Hensel - KG 9001 - size 136*253*115 mm) Supply and Erecting modular type computer jack RJ 45 ISI mark approved make with mounting plate and box with wiring connections complete.	Nos Nos	0.00		
	lockable and hinged cover with provision for cable through glands complete in all respects. 5 pair krone (Hensel - KG 9001 - size 136*253*115 mm) 10 pair krone (Hensel - KG 9001 - size 136*253*115 mm) 20 pair krone (Hensel - KG 9001 - size 136*253*115 mm) Supply and Erecting modular type computer jack RJ 45 ISI mark approved make with mounting plate and box with wiring connections complete.	Nos Nos Nos.	0.00 0.00 2.00		
	lockable and hinged cover with provision for cable through glands complete in all respects. 5 pair krone (Hensel - KG 9001 - size 136*253*115 mm) 10 pair krone (Hensel - KG 9001 - size 136*253*115 mm) 20 pair krone (Hensel - KG 9001 - size 136*253*115 mm) Supply and Erecting modular type computer jack RJ 45 ISI mark approved make with mounting plate and box with wiring connections complete.	Nos Nos	0.00		
	lockable and hinged cover with provision for cable through glands complete in all respects.         5 pair krone (Hensel - KG 9001 - size 136*253*115 mm)         10 pair krone (Hensel - KG 9001 - size 136*253*115 mm)         20 pair krone (Hensel - KG 9001 - size 136*253*115 mm)         Supply and Erecting modular type computer jack RJ 45 ISI mark approved make with mounting plate and box with wiring connections complete.         Supplying & installing UTP networking Cat-6 cable suitable for LAN/WAN computer net working as per catalog no. DC6CAUTP4P3X.	Nos Nos Nos.	0.00 0.00 2.00		
	lockable and hinged cover with provision for cable through glands complete in all respects. 5 pair krone (Hensel - KG 9001 - size 136*253*115 mm) 10 pair krone (Hensel - KG 9001 - size 136*253*115 mm) 20 pair krone (Hensel - KG 9001 - size 136*253*115 mm) Supply and Erecting modular type computer jack RJ 45 ISI mark approved make with mounting plate and box with wiring connections complete.	Nos Nos Nos.	0.00 0.00 2.00		

VI	SUB HEAD (VI) :- MISCELLANEOUS				
L	(DSR'2016)				
1	Providing and fixing M.V. danger notice plate of 200mmx150mm made of				
	mild steel, atleast 2mm thick and vitreous enamelled white on both sides				
	and with inscription single red colour on front side as required.				
		Each	191.00		
2	Providing and fixing hexagonal fan box circular/ Hexagonal cast iron or				
2	M.S. sheet box for ceiling fan clamp, of internal dia 140 mm, 73 mm height,				
	top lid of 1.5 mm thick M.S. sheet with its top surface hacked for proper				
	bonding, top lid shall be screwed into the cast iron/ M.S. sheet box by				
	means of 3.3 mm dia round headed screws, one lock at the corners. Clamp				
	shall be made of 12 mm dia M.S. bar bent to shape as per standard				
	drawing.	Each	1997.00		
	TOTAL SUB HEAD (VI) (DSR'2016)				
VII	SUB HEAD(VII):-INTERNAL LIGHTING FIXTURES & FANS				
	(DSR'2016)				
	<u>\</u>			1	1
L					
	SUPPLY OF LIGHTING FIXTURES				
	(NON-DSR'2016)				
	, , , , , , , , , , , , , , , , , , ,			i	1
					+
<u> </u>					
1	Supply of 1 * 28 watt T5 Surface/Ceiling mounted fluorescent light				
	fixture similar to Bajaj Cat. Ref. No : BLPR 128 or equivalent.	Each	1125.00		
	Supply of 2 * 28 watt T5 Surface/Ceiling mounted fluorescent light				
	fixture similar to <b>Bajaj</b> Cat. Ref. No : <b>BLPR 128</b> or equivalent.	Each	13.00		
	inxure similar to bajaj oat. Nel. No . ber N 120 of equivalent.	Each	10100		
2	Supply of Mirror Light fixture 1x11/15w Retrofit CFL Bajaj catalouge		704.00		
	no.BJCH 115 or Equivalent.	Each	704.00		
3	Supply of 1* 18 watt D Type CFL similar to Bajaj Cat. Ref. No				
	:BJDS118C WEB or Equivalent./LED Ceiling Light 5w	Each	3820.00		
4	Supply of 15W Bracket light fixtrure as per Bajaj cat no: BJLF1 15W RF				
4		Each	1760.00		
	OR equivalent inlcuding the lamps	Each	1700.00		
5	Supply of 2* 18 watt D Type CFL similar to Bajaj Cat. Ref. No : BCSC				
	218 CFL W2EB or Equivalent.	Each	360.00		
6	supply of 10W RETROFIT CFL BULK HEAD LIGHT as per Bajaj cat no :				
Ιĭ	BJDB 10 CFL RF OR equivalent including the lamps	Each	98.00		
		Laon	00.00	1	1
<u> </u>					
7	Supply of 11W Retrofit CFL as per Bajaj similar to Bajaj Cat. Ref. No :	E a st	0.00		
L	BJLF311WRF or Equivalent.	Each	0.00		
1					
8	Supply of Decorative 9/12 lamps chandelier.	Each	176.00		
<u> </u>		2001			
L	SUPPLY OF CEILING & EXHAUST FANS				
1	Supply of AC 230/250 volts, 50 HZ ceiling fan with standard down rod,				
1	blades, 2 nos. caps & regulator etc. ISI marked complete as required.				
1					
1					
1	1200 mm sweep	Nos	941.00	İ	İ
2	Supply of AC 230/250 volts, 50 HZ exhaust fans including providing	1103	0-11.00	1	1
<b>_</b>					
1	nuts, bolts, mounting frame and other accessories etc. complete				
1					
1	(Make : Bajaj / Crompton / Havells)				
	300 mm sweep 900 rpm	Nos	356.00		
<u> </u>					1
2	Supply of 450 mm dia Well Breeket Fee industry and dian and the ball				+
3	Supply of 450 mm dia Wall Bracket Fan including providing nuts, bolts,				
	mounting frame and other accessories etc complete in all respect as				
	required.	Nos	176.00		

	ERECTION OF LIGHTING FIXTURES AND FANS			
1	Installation, testing and commissioning of pre-wired, flourescent fitting / compact fluorescent fitting of all types, complete with all accessories and tubes etc. directly on ceiling / wall, including connection with 1.5 sq. mm. FRLS PVC insulated, copper conductor, single core cable and earthing etc.		4000.00	
2	as required. Installation, testing and commissioning of ceiling fan including wiring the down rod of standard length (upto 30 cm.) with 1.5 sq. mm. FRLS PVC insulated, copper conductor, single core cable, including providing and fixing phenolic laminated sheet cover on the fan box etc. as required.		4996.00	
		Each	1821.00	
3	Installation of <b>exhaust fan</b> in the existing opening, including making good the damage, connection, testing, commissioning etc. as required			
	Upto 450 mm sweep	Each	356.00	
4	Supplying and fixing of <b>call bell/buzzer</b> suitable for single phase, 230 volts, complete as required.	Each	176.00	

EXTERNAL ELECTRICAL & LIGHTING SYSTEM						
S.No	DESCRIPTION	QTY	UNIT	RATE	AMOUNT(1)	
1	MAIN LT PANEL					
	Design, manufacture, supply, installation, testing and commissioning of sheet steel cubicle type LT Panel					
	floor/wall mounted type fabricated from 14 SWG CRCA					
	sheet, free standing, indoor duty, dust proof, vermin proof,					
	front operated electrical panel fabricated as per specifications					
	laid in this document and will be complete with the main and					
	auxiliary bus bars, interconnection, earth bus and will be powder coated finish. The Main LT Panel shall use all draw					
	out type breakers suitable for 415 V AC, 3 phase, 50 Hz, 3					
	phase 4 wire supply system. Each incoming breaker will have					
	microprocessor based releases and all outgoing breaker will					
	have minimum electrostatic releases or mention in BOQ.					
	(Under no case temperature of main LT panel shall be more					
	at any point of the panel. To avoid heating necessary exhaust					
	fans shall have to be provided along with top louvers).					
	Degree of protection IP-42					
	The internal control wiring shall fuse less. All control wiring					
	and metering protection shall be by MCB's.					
	Colour: Siemens Gray Powder Coated or as per approved					
	shade.					
	Two numbers 1600A 4P EDO ACB incomer breaker from					
	transformer having microprocessor based, over current, earth					
	fault, short ckt. with relay, phase to neutral & neutral to earth					
	spark gap surge suppresor for 50KA with fuses, 3 phase					
	monitoring relay with phase sequence. This incomer shall have digital multifunction meter and RS 485 port with					
	matching cast resin CT's, volt meter, voltmeter selector					
	switch,ammeter, ammeter selector switch, indication lights for					
	phases with MCB, ON /OFF /TRIP indication light for spring					
	charge.					
	Circuit Breaker Rating - 1600 Amp 50KA 4P EDO ACB					
	Current Transfomer-					
	Ratio: 1600/5A					
	CL:1 & 5P10, 15VA					
	Relays-					
	IDMT 2 O/C+1 E/F RELAY					
	METERS-					
	Digital Ammeter with selector switch					
	Digital Voltmeter with selector switch					
	Set of indication Lamp-					
	Red-OFF					
	Green-ON					
	White-Trip Circuit Healthy					
	Amber-Trip Condition					
	Set of fine wiring, Ferrules & Fuses.				1	
	Power Pack 230V AC/24V DC Supply TWO Number 800A 4P EDO ACB incomer breaker from DG					
	SET (500 KVA) having microprocessor based, over current,					
	earth fault, short ckt. with Relay, phase to neutral & neutral to					
	earth spark gap surge suppresor for 50KA with fuses, 3phase					
	monitoring relay with phase sequence. This incomer shall					
	have digital multifunction meter and RS 485 port with matching cast resin CT's, volt meter, voltmeter selector					
	switch,ammeter, ammeter selector switch, indication lights for					
	phases with MCB, ON /OFF /TRIP indication light for spring					
	charge, 1 no. reverse power relay.					
	Circuit Breaker Rating - 800Amp 50KA 4P EDO ACB					
	Current Transfomer-					
	Ratio: 800/5A					
	CL:1 & 5P10, 15VA					

METERS:         Image: Comparison of the selector switch           Digital Voltmeter Wile selector switch         Image: Comparison of the selector switch           Ber of Anciatoro Larrep:         Image: Comparison of the selector switch           Read ON         Image: Comparison of the selector switch           State of the winth, Ferrulas & Fuses.         Image: Comparison of the selector switch           Antee-Tip: Condition         Image: Comparison of the selector switch           State of the winth, Ferrulas & Fuses.         Image: Comparison of the selector	lus			r	I	
Dipilal Ammeter With selector soutch         Dipilal Ammeter With selector soutch         Bet Of Indication Lamp         Ret-OH         Part Of The Concile Healthy         Antex-Tips Concile         Prove Flac 2004 AC24V DE Supply         INTERLOCKING         INTERLOCKING [pige destrictal between incomers and bus coupler and it should have bus bait and outs the facility for prove Flac 2004 AC24V DE Supply         INTERLOCKING         INTERLOCKING [pige destrictal between incomers and bus coupler and it should have bus bait and outs the facility for prove Flac 2004 AC24V DE Supply         One number 1600A A pole 50 KA EDD AC28 as bus coupler with CNOCPLER         One number 1600A A pole 50 KA EDD AC28 as bus coupler with CNOCPLER         Only de incomes can be on at one time in one bus.         Bus Coupler shall be interfocked electrality with Four incomes         Digto SUMDERS TE MAC28 (CA2ACITOR PANEL)         Prink Ammium bus ber with heat Shrink Sileave rated for Digto Nindscalon, 1 no. multilunction meet (Dowing all power parameters) with S485 port with selector switch, matching cast reson CT = (CITRUITON PANEL)         Prink SUMDERS TE MAC28 (CAAACITOR PANEL)         Prink SUMDERS TE MAC28 with microprocessor based releases, CN indication, 1 no. multilunction meet (blowing all power parameters) with S485 port with selector switch, matching cast reson CT = (CITRUITON PANEL)         Prink SUM S0 KA 4P MCCB with microprocessor based releases, CN indiscalon, 1 no. multilunction meet (blowing all		DMT 2 O/C+1 E/F RELAY				
Digital Voltmeter With selector avaich     Image: Comparison of the selector avaich       Best of Nation Lamps     Image: Comparison of the selector avaich       Geneen OTF     Image: Comparison of the selector avaich       Anter-Trip Concut Healthy     Image: Comparison of the selector avaich       Anter-Trip Concut Healthy     Image: Comparison of the selector avaich       Anter-Trip Concut Healthy     Image: Comparison of the selector avaich       Power Face 200V ACCAV DC Supply     Image: Comparison of the selector avaich       INTERLOCKING     Image: Compar						
Set of Indication Lamp-       Image: Set of Indication Lamp-         Bet-OW       Image: Trip Conclust Healthy         Antial-Trip Conclust       Image: Trip Conclust         Prover Frazz 20W AC224 VD CS supply       Image: Trip Conclust         INTERLOCKING       Image: Trip Conclust         Interlocking: Digit: Betrifical between incorrers and bus coupler and it should have audo attart and outs the facility for automatic operation of the betradems.       Image: Trip Conclust         Bus COUPLER       One number fields. A number of the Conclust Healthy for automatic operation of the betradems.       Image: Trip Conclust         Bus COUPLER       Only one incorrers and number of the conclust healthy for automatic operation of the betradems.       Image: Trip Conclust healthy in the conclust healthy for automatic operation.         Only one incorrers and be on at one time in one bus.       Image: Trip Conclust healthy in the conclust healthy in the conclust healthy in the conclust healthy in the fact operation.       Image: Trip Conclust healthy in the conclust healthy in thealthy conclust healthy in the conclust healthy in thealt						
Res-ON       Gree-OFF         Gree-OFF       Whis-Tip Cindian         Ander Tip Condition       Set of the wring, Perrules & Fuses.         Power Prack 2307 AC24V DC Supply       Prover Prack 2307 AC24V DC Supply         Interlocking logic electrical between incomers and bus coupler and is should have audo start and auto trip facility for automatic operation of the breakers.       Bus CouPLER         One number 1800A 4 pols 50 KA EDO ACB as bus coupler with Four commers and bus at one time in one bus.       Bus CouPLER         Only one incomers can be and a none time in one bus.       Bus Coupler shall have electrostatics releases.         DBUS Coupler shall have electrostatics releases.       Bus Coupler shall have electrostatics releases.         DD over incomers can be and a none time in one bus.       Bus Coupler shall have electrostatics releases.         DD 2 soc. 580 AMPS TP MCCB (CAPACITOR PANEL)       PEN Amminum bus bar with heat Shrink Steeve rated for 2000.         2 zoc. 580 AMPS TP MCCB (CAPACITOR PANEL)       PEN Amminum bus bar with heat Shrink Steeve rated for 2000.         1 no. 500A 50KA 4P ACB with microprocessor based releases. ON indication. 1 no. multifunction meter (showing all power parameters) with RS 485 port with steedor switch, matching ast reain CTs. (DSTINBUTION PANEL TYPE C)         1 no. 500A 50KA 4P MCCB with microprocessor based releases. ON indication. 1 no. multifunction meter (showing all power parameters) with RS 485 port with steedor switch, matching ast reain CTs. (NDSTINBUTION PANEL TYPE C)         1 no. 500A 5		5				
Oreen-OFF       Image: Circuit Healthy         Amber-Tip Condition       Set of fine wing, Forules & Fuses.         Power Prace, 2004       Carbon         Interfolds and a function       Set of fine wing, Forules & Fuses.         Power Prace, 2004       Carbon         Interfolds (Galo efficial between incorrers and bus coupler and it should have auto start and auto the facility for automatic petition       Image: Coupler and it should have auto start and auto the facility for automatic petition         Dec coupler and it should have auto start and auto the facility for automatic petition       Image: Coupler and its facility for automatic petition         Data coupler shall bar relations and auto the facility of automatic petition       Image: Coupler and auto the facility of automatic petition         Bus Coupler shall bar relations inclease.       Image: Coupler and auto the facility of automatic petition         Bus Coupler shall bar relations inclease.       Image: Coupler and auto the facility of automatic petition of automatic petition and auto the facility of automatic petition and auto the facility of automatic petition and auto the facility of automatic petition automatic petition and auto the facility of automatic petition and auto the facility of automatic petition and auto the facility of automatic petition automatic petition automatic petition automatic petition automatic petition automatic petition automatic petition automatic petition automatic petition automatic petition automatic petition automatic petition automatic petition automatic petition automatic petition automatic petition automatic petition automatic petition automatic petition automati		•				
White-Trip Circuit Healthy	R	ed-ON				
Amber-Trip Constitution         Star of fire wring, Ferrules & Euses.         Power Pack 230V AC/24V DC Supply         NTERLOCKING         Interlocking logic electrical between incomers and bus coupler and it should have acto start and auto trip facility for patientic operation of the breakers.         BUS COUPLER         Core multiple ligits (A pole 50 KA EDO ACB as bus coupler the monomers (Biok 4 pole 50 KA EDO ACB as bus coupler the monomers and bo interlocked electrically with Four incomers         Ordy one incomers can be on at one time in one bus.         Bus Coupler shall have electrocatics releases.         DVI SBAR         TPN A.         DOA SIGA AP ACS with heat Shrink Steeve rated for 2000 and bo SIGA COAPACITOR PANEL)         2 nos. 630 AMPS TM CCB (CAPACITOR PANEL)         2 nos. 630 AMPS TM CCB CAPACITOR PANEL all coup anameters) with RS 465 port with selector switch, maching cast reain CTs. (DISTRIBUTION PANEL TYPE A)         1 no. 500A 50KA 4P MCCB with microprocessor based releases, ON indication, 1: no. multifunction meter (showing all power parameters) with RS 465 port with selector switch, maching cast reain CTs. (NOSTRIBUTION PANEL TYPE E)         1 no. 500A 50K AP MCCB with microprocessor based releases, ON indication, 1: no. multifunction meter (showing all power parameters) with RS 465 port with selector switch, maching cast reain CTs. (NOSTRIBUTION PANEL TYPE E)         1 no. 500A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1: no. multifunction meter (showing all power parameters) with RS 465 port with selector switch, maching	G	reen-OFF				
Bit of fine wining, Ferniles & Fuses.       Image: Comparison of the breakers.         Power Pack 280V AC24V DC Supply       Image: Comparison of the breakers.         Interlocking logic electrical between incomers and bus coupler and is should have auto start and auto the facility for automatic operation of the breakers.       Image: Comparison of the breakers.         Bus COUPLER       One number 1600.4 pole 50 KA EDO ACB as bus coupler and the interlocked electrically with Four comparison at one time in one bus.       Image: Comparison of the breakers.         Doi: complet shall have electrostatics releases.       Image: Complet shall have electrostatics releases.       Image: Complet shall have electrostatics releases.         BUS BAR       Image: Complet shall have electrostatics releases.       Image: Complet shall have electrostatics releases.         Bus Coupler shall have electrostatics releases.       Image: Complet shall have electrostatics releases.       Image: Complet shall have electrostatics releases.         Bus Coupler shall have electrostatics releases.       Image: Complet shall have electrostatics releases.       Image: Complet shall have electrostatics releases.         Bus Coupler shall have electrostatics releases.       Image: Complet shall have electrostatics releases.       Image: Complet shall have electrostatics releases.         Bus Coupler shall have electrostatics releases.       Image: Complet shall have electrostatics releases.       Image: Complet shall have electrostatics releases.         Bus Coupler shall have electrostatics releases. <td>W</td> <td>/hite-Trip Circuit Healthy</td> <td></td> <td></td> <td></td> <td></td>	W	/hite-Trip Circuit Healthy				
Power Pack 230V AO2AV DC Supply         Implementation of the breakers.           Implementation of the breakers.         Implementation of the breakers.           BUS COUPLER         Implementation of the breakers.           Bus Coupler shall be interfocked electrically with Four incomers can be on at one time in one bus.         Implementation of the breakers.           Bus Coupler shall be interfocked electrically with Four incomers.         Implementation of the breakers.           Bus Coupler shall be interfocked electrically with Four incomers.         Implementation on at one time in one bus.           Bus Coupler shall be interfocked electrically with Four incomers.         Implementation one bas.           Bus Coupler shall be interfocked electrically with Four incomers.         Implementation one bas.           OUTCOING         Implementation one bas.         Implementation one bas.           OUTCOING         Implementation one bas.         Implementation one bas.           Implementation one bas with heat Shrink Sleever tated for 2000A.         Implementation one bas of the basel to breakers.           Implementation one based one	Ai	mber-Trip Condition				
INTERLOCKING         Interfectorial           Interfectorial         coupler and it should have auto star and auto trip facility for automatic operation of the breakers.           BUS COUPLER         Interfactorial           Othe number 1600A 4 pole 50 KA: EDO ACE as bus coupler with ONIOFF indication.         Interfactorial           Bus coupler shall be interfacted electrically with Four incomers         Interfactorial           Driv one incomers can be on at one time in one bus.         Interfactorial           Bus coupler shall have electrostatics releases.         Interfactorial           Data Coupler shall have electrostatics releases.         Interfactorial           Data Coupler shall have electrostatics releases.         Interfactorial           Data Coupler shall have electrostatics releases.         Interfactorial           Data Coupler shall have electrostatics releases.         Interfactorial           Data Coupler shall have electrostatics releases         Interfactorial           Data Coupler shall have electrostatics releases         Interfactorial           Data Coupler State Coupler State Coupler State Coupler State Coupler State Coupler State Coupler State Coupler State Coupler State Coupler State Coupler State Coupler State Coupler State Coupler State Coupler Coupler State Coupler Coupler State Coupler Coupler Coupler State Coupler Coupler State Coupler Coupler State Coupler Coupler Coupler Coupler Coupler Coupler Coupler Coupler Coupler Coupler Coupler Coupler Coupler Coupler Coupler Coupler Coupler Coupler Coupler Couple	Se	et of fine wiring, Ferrules & Fuses.				
Interfocking logic electrical between incomers and bus coupler and is should have auto start and auto trip facility for automatic operation of the breakers.       Image: Comparison of the breakers.         BUS COUPLER       One number 1900A 4 pole 50 KA EDD ACB as bus coupler wite CNUCPF indication.       Image: Comparison of the breakers.         Bus coupler shall bue interfocked electrically with Four incomers       Image: Comparison of the breakers.       Image: Comparison of the breakers.         Bus Coupler shall bur we electrostatics releases.       Image: Comparison of the breakers.       Image: Comparison of the breakers.         Bus Coupler shall have electrostatics releases.       Image: Comparison of the breakers.       Image: Comparison of the breakers.         OUTGOING       Image: Comparison of the breakers.       Image: Comparison of the breakers.       Image: Comparison of the breakers.         QUTGOING       Image: Comparison of the breakers.       Image: Comparison of the breakers.       Image: Comparison of the breakers.         QUTGOING       Image: Comparison of the breakers.       Image: Comparison of the breakers.       Image: Comparison of the breakers.         Qutricoline       Image: Comparison of the breakers.       Image: Comparison of the breakers.       Image: Comparison of the breakers.         Qutricoline       Image: Comparison of the breakers.       Image: Comparison of the breakers.       Image: Comparison of the breakers.         Qutrison of the breakers.       Image: C	Po	ower Pack 230V AC/24V DC Supply				
Interfocking logic electrical between incomers and bus coupler and is should have auto start and auto trip facility for automatic operation of the breakers.       Image: Comparison of the breakers.         BUS COUPLER       One number 1900A 4 pole 50 KA EDD ACB as bus coupler wite CNUCPF indication.       Image: Comparison of the breakers.         Bus coupler shall bue interfocked electrically with Four incomers       Image: Comparison of the breakers.       Image: Comparison of the breakers.         Bus Coupler shall bur we electrostatics releases.       Image: Comparison of the breakers.       Image: Comparison of the breakers.         Bus Coupler shall have electrostatics releases.       Image: Comparison of the breakers.       Image: Comparison of the breakers.         OUTGOING       Image: Comparison of the breakers.       Image: Comparison of the breakers.       Image: Comparison of the breakers.         QUTGOING       Image: Comparison of the breakers.       Image: Comparison of the breakers.       Image: Comparison of the breakers.         QUTGOING       Image: Comparison of the breakers.       Image: Comparison of the breakers.       Image: Comparison of the breakers.         Qutricoline       Image: Comparison of the breakers.       Image: Comparison of the breakers.       Image: Comparison of the breakers.         Qutricoline       Image: Comparison of the breakers.       Image: Comparison of the breakers.       Image: Comparison of the breakers.         Qutrison of the breakers.       Image: C	IN	ITERLOCKING				
coupler and it should have auto start and auto trip facility for automatic operation of the breakers.       Image: Coupler Shall be instructed and the share of						
BUS COUPLER						
One number 1600A 4 pole 50 KA EDO ACB as bus coupler						
with ON/OFF indication.	В	US COUPLER				
Bus coupler shall be interlocked electrically with Four incomers						
Incomersi						
Only one incorres can be on at one time in one bus.         Bus Coupler shall have electrostatics releases.         Bus Bar         TPN Aluminium bus bar with heat Shrink Sleeve rated for 2000A.         OUTGOING         2 nos. 503 AMPS TP MCCB (CAPACITOR PANEL)         9 no. 1000A 50KA 4P ACB with microprocessor based releases. ON indication, 1 no. multifunction meter (showing all power parameters) with R5 486 port with selector switch, matching cast resin CTs. (IDSTRIBUTION PANEL TYPE A)         1 no. 500A 50KA 4P MCCB with microprocessor based releases. ON indication, 1 no. multifunction meter (showing all power parameters) with R5 485 port with selector switch, matching cast resin CTs. (IDSTRIBUTION PANEL TYPE B)         1 no. 400A 50 KA 4P MCCB with microprocessor based releases. ON indication, 1 no. multifunction meter (showing all power parameters) with R5 485 port with selector switch, matching cast resin CTs. (IDSTRIBUTION PANEL TYPE C)         1 no. 600A 50 KA 4P MCCB with microprocessor based releases. ON indication, 1 no. multifunction meter (showing all power parameters) with R5 485 port with selector switch, matching cast resin CTs. (IDSTRIBUTION PANEL TYPE C)         1 no. 160A 50 KA 4P MCCB with microprocessor based releases. ON indication, 1 no. multifunction meter (showing all power parameters) with R5 485 port with selector switch, matching cast resin CTs. (IRE FIGHTINE PANEL)         1 no. 160A 50 KA 4P MCCB with microprocessor based releases. ON indication, 1 no. multifunction meter (showing all power parameters) with R5 485 port with selector switch, matching cast resin CTs. (FLER FIGHTINE PANEL)         1 no. 100A 50 KA 4P MCCB with microprocessor based						
Bus Coupler shall have electrostatics releases.       Image: Coupler shall have electrostatics releases.         BUS BAR       Image: Coupler shall have bus bar with heat Shrink Sleeve rated for 2000A.         QUTGOING       Image: Coupler STP MCCB (CAPACITOR PANEL)         2 nos. 630 AMPS TP MCCB (CAPACITOR PANEL)       Image: Coupler Strategies (Capacity Capacity Cap						
BUS BAR       TPN Aluminium bus bar with heat Shrink Sleave rated for 2000A.         OUTGOING       Calce.503 AMPS TP MCCB (CAPACITOR PANEL)         9 no. 1000A SDKA 4P ACB with microprocessor based releases, ON indication, no. multifunction meter (showing all power parameters) with R5 485 port with selector switch, matching cast resin CTs. (DISTRIBUTION PANEL TYPE A)         1 no. 500A 50KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with R5 485 port with selector switch, matching cast resin CTs. (DISTRIBUTION PANEL TYPE B)         1 no. 400A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with R5 485 port with selector switch, matching cast resin CTs. (DISTRIBUTION PANEL TYPE B)         1 no. 630A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with R5 485 port with selector switch, matching cast resin CTs. (DISTRIBUTION PANEL TYPE C)         1 no. 630A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with R5 485 port with selector switch, matching cast resin CTs. (PLUMBING PANEL)         1 no. 100A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with R5 485 port with selector switch, matching cast resin CTs. (PLUMBING PANEL)         1 no. 100A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with R5 485 port with selector switch, matching cast resin CTs. (EXTERNAL LIGHTING PANEL)         2 no. 530A		-				
TPN Aluminium bus bar with heat Shrink Sleeve rated for 2000A.		•				
2000A.       OUTGONE         2 nos. 630 AMPS TP MCCB (CAPACITOR PANEL)						
OUTGOING         2 nos. 630 AMPS TP MCCB (CAPACITOR PANEL)         9 no. 1000A 50KA 4P ACB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 485 port with selector switch, matching cast resin CTs. (DISTRIBUTION PANEL TYPE A)           1 no. 500A 50KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 485 port with selector switch, matching cast resin CTs. (DISTRIBUTION PANEL TYPE B)           1 no. 400A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 485 port with selector switch, matching cast resin CTs. (DISTRIBUTION PANEL TYPE C)           1 no. 630A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 485 port with selector switch, matching cast resin CTs. (MAIN LIFT PANEL)           1 no. 630A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 485 port with selector switch, matching cast resin CTs. (MAIN LIFT PANEL)           1 no. 500A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 485 port with selector switch, matching cast resin CTs. (FLUMBING PANEL)           1 no. 500A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 485 port with selector switch, matching cast resin CTs. (FLE FIGHTING PANEL)           1 no. 500A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multinuction meter (showing all power parameters) with RS 485 port wi						
2 nos. 630 AMPS TP MCCB (CAPACITOR PANEL)         9 no. 1000A 50KA 4P ACB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with R5 455 port with selector switch, matching cast resin CTs. (DISTRIBUTION PANEL TYPE A)         1 no. 500A 50KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with R5 455 port with selector switch, matching cast resin CTs. (DISTRIBUTION PANEL TYPE B)         1 no. 400A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with R5 455 port with selector switch, matching cast resin CTs. (DISTRIBUTION PANEL TYPE C)         1 no. 630A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with R5 455 port with selector switch, matching cast resin CTs. (MAIN LIFT PANEL)         1 no. 150A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with R5 455 port with selector switch, matching cast resin CTs. (PLUMBING PANEL)         1 no. 500A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with R5 455 port with selector switch, matching cast resin CTs. (FLCE with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with R5 455 port with selector switch, matching cast resin CTs. (EXTERNAL LIGHTING PANEL)         2 no. 630A 50 KA 4P MCCB (SPARE)       2         2 no. 630A 50 KA 4P MCCB (SPARE)       2         2 no. 630A 50 KA 4P MCCB (SPARE)       2						
9 no. 1000A 50KA 4P ACB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 435 post with selector switch, matching cast resin CTs. (DISTRIBUTION PANEL TYPE A)         1 no. 500A 50KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 435 post with selector switch, matching cast resin CTs. (DISTRIBUTION PANEL TYPE B)         1 no. 400A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 435 post with selector switch, matching cast resin CTs. (DISTRIBUTION PANEL TYPE C)         1 no. 630A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 435 post with selector switch, matching cast resin CTs. (MAIN LIFT PANEL)         1 no. 160A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 435 post with selector switch, matching cast resin CTs. (MAIN LIFT PANEL)         1 no. 160A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 435 post with selector switch, matching cast resin CTs. (FLIRE FIGHTING PANEL)         1 no. 100A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 435 post with selector switch, matching cast resin CTs. (FLIRE FIGHTING PANEL)         1 no. 100A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 435 post with selector switch, matching cast resin CTs. (FLIRE FIGHTING PANEL)						
all power parameters) with RS 485 port with selector switch, matching cast resin CTs. (DISTRIBUTION PANEL TYPE A)         1 no. 500A 50KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 485 port with selector switch, matching cast resin CTs. (DISTRIBUTION PANEL TYPE B)         1 no. 400A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 485 port with selector switch, matching cast resin CTs. (DISTRIBUTION PANEL TYPE C)         1 no. 630A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 485 port with selector switch, matching cast resin CTs. (MAIN LIFT PANEL)         1 no. 630A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 485 port with selector switch, matching cast resin CTs. (MAIN LIFT PANEL)         1 no. 630A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 485 port with selector switch, matching cast resin CTs. (FLUMBING PANEL)         1 no. 100A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 485 port with selector switch, matching cast resin CTs. (FLUMBING PANEL)         2 no. 630A 50 KA 4P MCCB (SPARE)						
all power parameters) with RS 485 port with selector switch, matching cast resin CT's. (DISTRIBUTION PANEL TYPE A) 1 no. 500A 50KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 485 port with selector switch, matching cast resin CT's. (DISTRIBUTION PANEL TYPE B) 1 no. 400A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 485 port with selector switch, matching cast resin CT's. (DISTRIBUTION PANEL TYPE C) 1 no. 630A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 485 port with selector switch, matching cast resin CT's. (MAIN LIFT PANEL) 1 no. 160A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 485 port with selector switch, matching cast resin CT's. (MURUBRY PANEL) 1 no. 500A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 485 port with selector switch, matching cast resin CT's. (FLR FIGHTING PANEL) 1 no. 500A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 485 port with selector switch, matching cast resin CT's. (FLR FIGHTING PANEL) 2 no. 630A 50 KA 4P MCCB (spare) 2 no. 630A 50 KA 4P MCCB (SPARE) 2 no. 630A 50 KA 4P MCCB (SPARE) 2 no. 500A 50 KA 4P MCCB (SPARE) 2 no. 500A 50 KA 4P MCCB (SPARE) 2 no. 500A 50 KA 4P MCCB (SPARE) 3 fset of designation plates All tems complete as above 1 Nos						
1       no. 500A 50KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 485 port with selector switch, matching cast resin CTs. (DISTRIBUTION PANEL TYPE B)         1       no. 400A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 485 port with selector switch, matching cast resin CTs. (DISTRIBUTION PANEL TYPE C)         1       no. 630A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 485 port with selector switch, matching cast resin CTs. (NATRIBUTION PANEL TYPE C)         1       no. 630A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 485 port with selector switch, matching cast resin CTs. (NATRIBUTION PANEL)         1       no. 160A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 485 port with selector switch, matching cast resin CTs. (PLUMBING PANEL)         1       no. 500A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 485 port with selector switch, matching cast resin CTs. (FIRE FIGHTING PANEL)         1       no. 100A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 485 port with selector switch, matching cast resin CTs. (EXTERNAL LIGHTING PANEL)         2       no. 630A 50 KA 4P MCCB (SPARE)       2         2       no. 630A 5						
releases, ON indication, 1 no. multifunction meter (showing all power parameters) with R5 485 port with selector switch, matching cast resin CTs. (DISTRIBUTION PANEL TYPE B) 1 no. 400A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with R5 485 port with selector switch, matching cast resin CTs. (DISTRIBUTION PANEL TYPE C) 1 no. 630A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with R5 485 port with selector switch, matching cast resin CTs. (MAIN LIFT PANEL) 1 no. 160A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with R5 485 port with selector switch, matching cast resin CTs. (MAIN LIFT PANEL) 1 no. 160A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with R5 485 port with selector switch, matching cast resin CTs. (PLUMBING PANEL) 1 no. 500A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with R5 485 port with selector switch, matching cast resin CTs. (FIRE FIGHTING PANEL) 1 no. 100A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with R5 485 port with selector switch, matching cast resin CTs. (EXTERNAL LIGHTING PANEL) 2 no. 630A 50 KA 4P MCCB (SPARE) 2 is set of control wing 1 set of doming 1 1 set of designation plates All Items complete as above 1 Nos	m	atching cast resin CT's. (DISTRIBUTION PANEL TYPE A)				
releases, ON indication, 1 no. multifunction meter (showing all power parameters) with R5 445 port with selector switch, matching cast resin CTs. (DISTRIBUTION PANEL TYPE B)         1 no. 400A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with R5 445 port with selector switch, matching cast resin CTs. (DISTRIBUTION PANEL TYPE C)         1 no. 630A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with R5 445 port with selector switch, matching cast resin CTs. (MAIN LIFT PANEL)         1 no. 160A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with R5 445 port with selector switch, matching cast resin CTs. (PLUMBING PANEL)         1 no. 500A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with R5 445 port with selector switch, matching cast resin CTs. (PLUMBING PANEL)         1 no. 100A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with R5 445 port with selector switch, matching cast resin CTs. (FIRE FIGHTING PANEL)         1 no. 100A 50 KA 4P MCCB (SPARE)						
all power parameters) with RS 485 port with selector switch,         matching cast resin CTs. (DISTRIBUTION PANEL TYPE B)         1 no. 400A 50 KA 4P MCCB with microprocessor based         releases, ON indication, 1 no. multifunction meter (showing         all power parameters) with RS 485 port with selector switch,         matching cast resin CTs. (DISTRIBUTION PANEL TYPE C)         1 no. 630A 50 KA 4P MCCB with microprocessor based         releases, ON indication, 1 no. multifunction meter (showing         all power parameters) with RS 485 port with selector switch,         matching cast resin CTs. (MAIN LIFT PANEL)         1 no. 160A 50 KA 4P MCCB with microprocessor based         releases, ON indication, 1 no. multifunction meter (showing         all power parameters) with RS 485 port with selector switch,         matching cast resin CTs. (PLUMBING PANEL)         1 no. 500A 50 KA 4P MCCB with microprocessor based         releases, ON indication, 1 no. multifunction meter (showing         all power parameters) with RS 485 port with selector switch,         matching cast resin CTs. (FIRE FIGHTING PANEL)         1 no. 100A 50 KA 4P MCCB with microprocessor based         releases, ON indication, 1 no. multifunction meter (showing         all power parameters) with RS 485 port with selector switch,         matching cast resin CTs. (EXTERNAL LIGHTING PANEL)         2 no. 630A 50 KA 4P MCCB (SPARE)						
matching cast resin CT's. (DISTRIBUTION PANEL TYPE B)         1 no. 400A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 458 port with selector switch, matching cast resin CT's. (DISTRIBUTION PANEL TYPE C)         1 no. 630A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 458 port with selector switch, matching cast resin CT's. (MAIN LIFT PANEL)         1 no. 160A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 458 port with selector switch, matching cast resin CT's. (PLUMBING PANEL)         1 no. 500A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 458 port with selector switch, matching cast resin CT's. (PLUMBING PANEL)         1 no. 500A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 458 port with selector switch, matching cast resin CT's. (FIRE FIGHTING PANEL)         1 no. 100A 50 KA 4P MCCB (SPARE)						
1       no. 400A 50 KA 4P MCCB with microprocessor based         releases, ON indication, 1 no. multifunction meter (showing         all power parameters) with RS 485 port with selector switch,         matching cast resin CTs. (DISTRIBUTION PANEL TYPE C)         1       no. 630A 50 KA 4P MCCB with microprocessor based         releases, ON indication, 1 no. multifunction meter (showing         all power parameters) with RS 485 port with selector switch,         matching cast resin CTs. (WAIN LIFT PANEL)         1       no. 160A 50 KA 4P MCCB with microprocessor based         releases, ON indication, 1 no. multifunction meter (showing         all power parameters) with RS 485 port with selector switch,         matching cast resin CTs. (FULWBING PANEL)         1       no. 500A 50 KA 4P MCCB with microprocessor based         releases, ON indication, 1 no. multifunction meter (showing         all power parameters) with RS 485 port with selector switch,         matching cast resin CTs. (FIRE FIGHTING PANEL)         1       no. 100A 50 KA 4P MCCB with microprocessor based         releases, ON indication, 1 no. multifunction meter (showing         all power parameters) with RS 485 port with selector switch,         matching cast resin CTs. (EXTERNAL LIGHTING PANEL)         2       no. 630A 50 KA 4P MCCB (SPARE)         2       no. 630A 50 KA 4P MCCB (SPARE)						
releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 485 port with selector switch, matching cast resin CTs. (DISTRIBUTION PANEL TYPE C)         1 no. 630A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 485 port with selector switch, matching cast resin CTs. (MULT PANEL)         1 no. 160A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 485 port with selector switch, matching cast resin CTs. (PLUMBING PANEL)         1 no. 160A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 485 port with selector switch, matching cast resin CTs. (FILMBING PANEL)         1 no. 500A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 485 port with selector switch, matching cast resin CTs. (FIRE FIGHTING PANEL)         1 no. 100A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 485 port with selector switch, matching cast resin CTs. (EXTERNAL LIGHTING PANEL)         2 no. 630A 50 KA 4P MCCB (SPARE)		, , , , , , , , , , , , , , , , , , ,				
all power parameters) with RS 485 port with selector switch,         matching cast resin CT's. (DISTRIBUTION PANEL TYPE C)         1 no. 630A 50 KA 4P MCCB with microprocessor based         releases, ON indication, 1 no. multifunction meter (showing         all power parameters) with RS 485 port with selector switch,         matching cast resin CT's. (MAIN LIFT PANEL)         1 no. 160A 50 KA 4P MCCB with microprocessor based         releases, ON indication, 1 no. multifunction meter (showing         all power parameters) with RS 485 port with selector switch,         matching cast resin CT's. (PLUMBING PANEL)         1 no. 500A 50 KA 4P MCCB with microprocessor based         releases, ON indication, 1 no. multifunction meter (showing         all power parameters) with RS 485 port with selector switch,         matching cast resin CT's. (FIRE FIGHTING PANEL)         1 no. 100A 50 KA 4P MCCB with microprocessor based         releases, ON indication, 1 no. multifunction meter (showing         all power parameters) with RS 485 port with selector switch,         matching cast resin CT's. (FIRE FIGHTING PANEL)         1 no. 100A 50 KA 4P MCCB (SPARE)         2 no. 630A 50 KA 4P MCCB (SPARE)         2 no. 630A 50 KA 4P MCCB (SPARE)         2 no. 630A 50 KA 4P MCCB (SPARE)         2 no. 500A 50 KA 4P MCCB (SPARE)         2 no. 630A 50 KA 4P MCCB (SPARE)         2 no control wi	1	no. 400A 50 KA 4P MCCB with microprocessor based				
matching cast resin CTs. (DISTRIBUTION PANEL TYPE C)         1 no. 630A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 485 port with selector switch, matching cast resin CTs. (MAIN LIFT PANEL)         1 no. 160A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 485 port with selector switch, matching cast resin CTs. (PLUMBING PANEL)         1 no. 500A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 485 port with selector switch, matching cast resin CTs. (FIRE FIGHTING PANEL)         1 no. 100A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 485 port with selector switch, matching cast resin CTs. (FIRE FIGHTING PANEL)         1 no. 100A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 485 port with selector switch, matching cast resin CTs. (EXTERNAL LIGHTING PANEL)         2 no. 630A 50 KA 4P MCCB (SPARE)						
1 no. 630A 50 KA 4P MCCB with microprocessor based         releases, ON indication, 1 no. multifunction meter (showing         all power parameters) with RS 485 port with selector switch,         matching cast resin CT's. (MAIN LIFT PANEL)         1 no. 160A 50 KA 4P MCCB with microprocessor based         releases, ON indication, 1 no. multifunction meter (showing         all power parameters) with RS 485 port with selector switch,         matching cast resin CT's. (PLUMBING PANEL)         1 no. 500A 50 KA 4P MCCB with microprocessor based         releases, ON indication, 1 no. multifunction meter (showing         all power parameters) with RS 485 port with selector switch,         matching cast resin CT's. (FIRE FIGHTING PANEL)         1 no. 100A 50 KA 4P MCCB with microprocessor based         releases, ON indication, 1 no. multifunction meter (showing         all power parameters) with RS 485 port with selector switch,         matching cast resin CT's. (FIRE FIGHTING PANEL)         1 no. 100A 50 KA 4P MCCB (SPARE)         2 no. 630A 50 KA 4P MCCB (SPARE)         2 no. 500A 50 KA 4P MCCB (SPARE)         <						
releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 485 port with selector switch, matching cast resin CT's. (MAIN LIFT PANEL)         1 no. 160A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 485 port with selector switch, matching cast resin CT's. (PLUMBING PANEL)         1 no. 500A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 485 port with selector switch, matching cast resin CT's. (FIRE FIGHTING PANEL)         1 no. 100A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 485 port with selector switch, matching cast resin CT's. (FIRE FIGHTING PANEL)         1 no. 100A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 485 port with selector switch, matching cast resin CT's. (EXTERNAL LIGHTING PANEL)         2 no. 630A 50 KA 4P MCCB (SPARE)	m	atching cast resin CTS. (DISTRIBUTION PANEL TYPE C)				
releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 485 port with selector switch, matching cast resin CT's. (MAIN LIFT PANEL)         1 no. 160A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 485 port with selector switch, matching cast resin CT's. (PLUMBING PANEL)         1 no. 500A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 485 port with selector switch, matching cast resin CT's. (FIRE FIGHTING PANEL)         1 no. 100A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 485 port with selector switch, matching cast resin CT's. (FIRE FIGHTING PANEL)         1 no. 100A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 485 port with selector switch, matching cast resin CT's. (EXTERNAL LIGHTING PANEL)         2 no. 630A 50 KA 4P MCCB (SPARE)	1	no 630A 50 KA 4P MCCB with microprocessor based				
all power parameters) with RS 485 port with selector switch, matching cast resin CT's. (MAIN LIFT PANEL)         1 no. 160A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 485 port with selector switch, matching cast resin CT's. (PLUMBING PANEL)         1 no. 500A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 485 port with selector switch, matching cast resin CT's. (FIRE FIGHTING PANEL)         1 no. 100A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 485 port with selector switch, matching cast resin CT's. (FIRE FIGHTING PANEL)         1 no. 100A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 485 port with selector switch, matching cast resin CT's. (EXTERNAL LIGHTING PANEL)         2 no. 630A 50 KA 4P MCCB (SPARE)						
1 no. 160A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 485 port with selector switch, matching cast resin CT's. (PLUMBING PANEL)         1 no. 500A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 485 port with selector switch, matching cast resin CT's. (FIRE FIGHTING PANEL)         1 no. 100A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 485 port with selector switch, matching cast resin CT's. (FIRE FIGHTING PANEL)         1 no. 100A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 485 port with selector switch, matching cast resin CT's. (EXTERNAL LIGHTING PANEL)         2 no. 630A 50 KA 4P MCCB (SPARE)       2         2 no. 500A 50 KA 4P MCCB (SPARE)       2         0 Other items such as       4         1 set of control wiring       1         1 Set of designation plates       4         All Items complete as above       1         All Items complete as above       1						
releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 485 port with selector switch, matching cast resin CT's. (PLUMBING PANEL)         1 no. 500A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 485 port with selector switch, matching cast resin CT's. (FIRE FIGHTING PANEL)         1 no. 100A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 485 port with selector switch, matching cast resin CT's. (FIRE FIGHTING PANEL)         2 no. 630A 50 KA 4P MCCB (SPARE)       2         2 no. 630A 50 KA 4P MCCB (SPARE)       2         2 no. 630A 50 KA 4P MCCB (SPARE)       2         2 no. 500A 50 KA 4P MCCB (SPARE)       2         1 set of control wiring       1         1 set of designation plates       1         All Items complete as above       1         AUTOMATIC POWER FACTOR CORRECTION PANEL       1	m	atching cast resin CT's. (MAIN LIFT PANEL)				
releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 485 port with selector switch, matching cast resin CT's. (PLUMBING PANEL)         1 no. 500A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 485 port with selector switch, matching cast resin CT's. (FIRE FIGHTING PANEL)         1 no. 100A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 485 port with selector switch, matching cast resin CT's. (FIRE FIGHTING PANEL)         2 no. 630A 50 KA 4P MCCB (SPARE)       2         2 no. 630A 50 KA 4P MCCB (SPARE)       2         2 no. 630A 50 KA 4P MCCB (SPARE)       2         2 no. 500A 50 KA 4P MCCB (SPARE)       2         1 set of control wiring       1         1 set of designation plates       1         All Items complete as above       1         AUTOMATIC POWER FACTOR CORRECTION PANEL       1						
all power parameters) with RS 485 port with selector switch, matching cast resin CT's. (PLUMBING PANEL)       Imatching cast resin CT's. (PLUMBING PANEL)         1 no. 500A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 485 port with selector switch, matching cast resin CT's. (FIRE FIGHTING PANEL)       Imatching cast resin CT's. (FIRE FIGHTING PANEL)         1 no. 100A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 485 port with selector switch, matching cast resin CT's. (EXTERNAL LIGHTING PANEL)       Imatching cast resin CT's. (EXTERNAL LIGHTING PANEL)         2 no. 630A 50 KA 4P MCCB (SPARE)       Imatching cast resin CT's. (EXTERNAL LIGHTING PANEL)         2 no. 500A 50 KA 4P MCCB (SPARE)       Imatching cast resin CT's. (EXTERNAL LIGHTING PANEL)         2 no. 500A 50 KA 4P MCCB (SPARE)       Imatching cast resin CT's. (EXTERNAL LIGHTING PANEL)         2 no. 500A 50 KA 4P MCCB (SPARE)       Imatching cast resin CT's. (EXTERNAL LIGHTING PANEL)         2 no. 500A 50 KA 4P MCCB (SPARE)       Imatching cast resin CT's. (EXTERNAL LIGHTING PANEL)         3 not forther items such as       Imatching cast resin CT's. (EXTERNAL LIGHTING PANEL)         4 not support to complete as above       1       Nos         4 not support to complete as above       1       Nos         4 not support to complete as above       1       Nos						
matching cast resin CT's. (PLUMBING PANEL)         1 no. 500A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 485 port with selector switch, matching cast resin CT's. (FIRE FIGHTING PANEL)         1 no. 100A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 485 port with selector switch, matching cast resin CT's. (EXTERNAL LIGHTING PANEL)         2 no. 630A 50 KA 4P MCCB (SPARE)						
releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 485 port with selector switch, matching cast resin CT's. (FIRE FIGHTING PANEL) <ul> <li>1 no. 100A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 485 port with selector switch, matching cast resin CT's. (EXTERNAL LIGHTING PANEL)</li> <li>2 no. 630A 50 KA 4P MCCB (SPARE)</li> <li>2 no. 500A 50 KA 4P MCCB (SPARE)</li> <li>2 no. 500A 50 KA 4P MCCB (SPARE)</li> <li>Other items such as</li> <li>1 set of control wiring</li> <li>1 Set of designation plates</li> <li>All Items complete as above</li> <li>1 Nos</li> </ul>						
releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 485 port with selector switch, matching cast resin CT's. (FIRE FIGHTING PANEL) <ul> <li>1 no. 100A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 485 port with selector switch, matching cast resin CT's. (EXTERNAL LIGHTING PANEL)</li> <li>2 no. 630A 50 KA 4P MCCB (SPARE)</li> <li>2 no. 500A 50 KA 4P MCCB (SPARE)</li> <li>2 no. 500A 50 KA 4P MCCB (SPARE)</li> <li>Other items such as</li> <li>1 set of control wiring</li> <li>1 Set of designation plates</li> <li>All Items complete as above</li> <li>1 Nos</li> </ul>		, ,				
all power parameters) with RS 485 port with selector switch, matching cast resin CT's. (FIRE FIGHTING PANEL)       Image: Complete as above         1 no. 100A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 485 port with selector switch, matching cast resin CT's. (EXTERNAL LIGHTING PANEL)       Image: Complete as above         2 no. 630A 50 KA 4P MCCB (SPARE)       Image: Complete as above       Image: Complete as above         1 set of control wiring       Image: Complete as above       Image: Complete as above       Image: Complete as above         AUTOMATIC POWER FACTOR CORRECTION PANEL       Image: Complete as above       Image: Complete as above       Image: Complete as above		•				
matching cast resin CT's. (FIRE FIGHTING PANEL)         1 no. 100A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 485 port with selector switch, matching cast resin CT's. (EXTERNAL LIGHTING PANEL)         2 no. 630A 50 KA 4P MCCB (SPARE)         2 no. 630A 50 KA 4P MCCB (SPARE)         Other items such as         1 set of control wiring         1 Set of designation plates         All Items complete as above         1 Nos						
1 no. 100A 50 KA 4P MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 485 port with selector switch, matching cast resin CT's. (EXTERNAL LIGHTING PANEL)         2 no. 630A 50 KA 4P MCCB (SPARE)         2 no. 500A 50 KA 4P MCCB (SPARE)         Other items such as         1 set of control wiring         1 Set of designation plates         All Items complete as above         1 Nos						
releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 485 port with selector switch, matching cast resin CT's. (EXTERNAL LIGHTING PANEL) <ul> <li>2 no. 630A 50 KA 4P MCCB (SPARE)</li> <li>2 no. 500A 50 KA 4P MCCB (SPARE)</li> <li>Other items such as</li> <li>1 set of control wiring</li> <li>1 Set of designation plates</li> <li>All Items complete as above</li> <li>1 Nos</li> </ul> <ul> <li>MOMATIC POWER FACTOR CORRECTION PANEL</li> </ul>	m	atoming tast lesin of s. (FIRE FIGHTING PANEL)				
releases, ON indication, 1 no. multifunction meter (showing all power parameters) with RS 485 port with selector switch, matching cast resin CT's. (EXTERNAL LIGHTING PANEL) <ul> <li>2 no. 630A 50 KA 4P MCCB (SPARE)</li> <li>2 no. 500A 50 KA 4P MCCB (SPARE)</li> <li>Other items such as</li> <li>1 set of control wiring</li> <li>1 Set of designation plates</li> <li>All Items complete as above</li> <li>1 Nos</li> </ul> <ul> <li>MUTOMATIC POWER FACTOR CORRECTION PANEL</li> </ul>	1	no. 100A 50 KA 4P MCCB with microprocessor based				
all power parameters) with RS 485 port with selector switch, matching cast resin CT's. (EXTERNAL LIGHTING PANEL)       Image: Complete case of the selector switch, matching cast resin CT's. (EXTERNAL LIGHTING PANEL)         2 no. 630A 50 KA 4P MCCB (SPARE)       Image: Complete case of the selector switch, matching cast resin CT's. (EXTERNAL LIGHTING PANEL)         2 no. 630A 50 KA 4P MCCB (SPARE)       Image: Complete case of the selector switch, matching cast resin CT's. (EXTERNAL LIGHTING PANEL)         Other items such as       Image: Complete case of the selector switch, matching cast resin CT's. (EXTERNAL LIGHTING PANEL)         1 set of control wiring       Image: Complete case of the selector switch, matching cast resin CT's. (EXTERNAL LIGHTING PANEL)         All Items complete as above       1       Nos         AUTOMATIC POWER FACTOR CORRECTION PANEL_       Image: Complete case of the selector switch, matching cast resin cast rest rest resin ca						
2 no. 630A 50 KA 4P MCCB (SPARE)	al	I power parameters) with RS 485 port with selector switch,				
2 no. 500A 50 KA 4P MCCB (SPARE)	m	atching cast resin CT's. (EXTERNAL LIGHTING PANEL)				
2 no. 500A 50 KA 4P MCCB (SPARE)						
Other items such as       Image: Control wiring         1 set of control wiring       Image: Control wiring         1 Set of designation plates       Image: Control wiring         All Items complete as above       1       Nos         AUTOMATIC POWER FACTOR CORRECTION PANEL       Image: Control wiring       Image: Control wiring		, , , , , , , , , , , , , , , , , , ,				
1 set of control wiring       Image: Control wiring         1 Set of designation plates       Image: Control wiring         All Items complete as above       1       Nos         AutomAtic Power Factor correction Panel_       Image: Control wiring       Image: Control wiring		. ,				
1 Set of designation plates       1       Nos         All Items complete as above       1       Nos         AUTOMATIC POWER FACTOR CORRECTION PANEL       1       1	0	ther items such as				
All Items complete as above 1 Nos           All Items complete as above         1         Nos           AUTOMATIC POWER FACTOR CORRECTION PANEL	1	set of control wiring				
AUTOMATIC POWER FACTOR CORRECTION PANEL	1	Set of designation plates				
AUTOMATIC POWER FACTOR CORRECTION PANEL	AI	Il Items complete as above	1	Nos		
	A	UTOMATIC POWER FACTOR CORRECTION PANEL		1	1	1
	-	CAPACITOR PANEL)				

	Supply, Installation, Testing commissioning, Design,		
	manufacture, supply, inspection, handling, assembling,		
	affecting proper connections, testing and commissioning of		
	14 SWG CRCA sheet steel fabricated cubical type <b>225 KVAR</b>		
	A P F C Panel consisting of 100 / 50 / 25 KVAR capacitor		
	units in tier formation, housed in an integrated cubicle type		
	automatic switching ON and OFF control panel, floor		
	mounting, dust & vermin proof, front operated construction,		
	enclosure class - IP 52, powder coated after proper treatment		
	with 9 tank process with top/bottom removable gland plates,		
	as required, double compression type cable glands, earth		
	bus, hinged and lockable doors to achieve dust and vermin		
	proof complete with all inter connections small wiring by min.		
	2.5 sq. mm. copper wires, ckt labels etc. The Aluminium Bus		
	Bar shall be of suitable length, 500 volts, 3 phase 50 Hz TPN,		
	electrolytic aluminium as per IS 8623.		
	All outgoings MCCB's shall be thermal-magnetic based with		
	inbuilt O/L & S/C release.		
	All MCCB's shall be Ics = 100% Icu, with rotary handle & pad		
1	locking arrangement, with adjustable O/L & S/C trip setting		1
	as per load requirement. All TP MCCB shall be with heavy		
1	duty solid isolable neutral link. The breaking capacity		1
	specified is Ics value. The instrument chamber shall be		
1	•		1
	separate and shall comprise of flush type ammeter, voltmeter,		
1	selector switches, CT's, PT's, etc		1
1			1
<u> </u>	Capacitor duty contactors should be used for switching	 l	
1	individual capacitor banks.		1
	The fault withstanding capacity of panel & its control gear		
	shall be min. 35 KA rms for 1 sec.		
	The capacitor panel shall be integrated with the main L T		
	Panel as per schematic diagram.		
	INCOMING		
	Incomer circuit breaker has been included in the main panel.		
	1 set- 3 CTs , ratio 100/5A Class 1.0 accuracy 15 VA burden		
	for metering.		
	-		
	1Nos- (0-100A) digital Ameter with selector switch		
	Micro processor based automatic power factor control		
	relay (including power factor meter) in 8 steps for automatic		
	cut off or add on capacitor units to keep the power factor at		
	0.95 with variation of loads. All associated auxiliary		
	contactors / relays shall be provided with in the scope of		
	work.		
1	Phase indicating lamps with HRC fuses, and indicating in		
	each capacitor chamber unit to indicate On/Off status of		
	capacitor unit.		
	BUS BARS		
1	800 AMP, 500 Volts, 3 phase 50 HZ TPN high conductivity		
1	electrolytic Aluminium bus bar of suitable length, SMC / DMC		
1	supports, with colour coding and insulated by heat shrinkable		
1	sleeves and clips on shrouds for joints. The current density of	1	
	ciceree and sipe on enterdue for jointer the current density of		
	bus bar shall be minimum 1.00 sq mm / amp.		
	bus bar shall be minimum 1.00 sq mm / amp.		
	bus bar shall be minimum 1.00 sq mm / amp. The Maximum allowable temperature for the Bus bar to be		
	bus bar shall be minimum 1.00 sq mm / amp. The Maximum allowable temperature for the Bus bar to be restricted to 85 deg C. The temperature rise should be		
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	bus bar shall be minimum 1.00 sq mm / amp. The Maximum allowable temperature for the Bus bar to be restricted to 85 deg C. The temperature rise should be restricted to 35 deg C above ambient temperature.		
	bus bar shall be minimum 1.00 sq mm / amp. The Maximum allowable temperature for the Bus bar to be restricted to 85 deg C. The temperature rise should be restricted to 35 deg C above ambient temperature. <u>OUTGOINGS</u> -		
	bus bar shall be minimum 1.00 sq mm / amp. The Maximum allowable temperature for the Bus bar to be restricted to 85 deg C. The temperature rise should be restricted to 35 deg C above ambient temperature. OUTGOINGS - 3 no. of 125 AMPS TPN 25 KA MCCB and 150 amps AC3		
	bus bar shall be minimum 1.00 sq mm / amp. The Maximum allowable temperature for the Bus bar to be restricted to 85 deg C. The temperature rise should be restricted to 35 deg C above ambient temperature. <u>OUTGOINGS</u> -		
	bus bar shall be minimum 1.00 sq mm / amp. The Maximum allowable temperature for the Bus bar to be restricted to 85 deg C. The temperature rise should be restricted to 35 deg C above ambient temperature. <u>OUTGOINGS</u> - <b>3 no. of 125 AMPS</b> TPN <b>25 KA</b> MCCB and <b>150 amps</b> AC3 duty contactor with <b>50 KVAR</b> gas filled <b>415 V</b> capacitor bank,		
	bus bar shall be minimum 1.00 sq mm / amp. The Maximum allowable temperature for the Bus bar to be restricted to 85 deg C. The temperature rise should be restricted to 35 deg C above ambient temperature. OUTGOINGS - 3 no. of 125 AMPS TPN 25 KA MCCB and 150 amps AC3 duty contactor with 50 KVAR gas filled 415 V capacitor bank, auto-manual selector switch, start stop push button for		
	bus bar shall be minimum 1.00 sq mm / amp. The Maximum allowable temperature for the Bus bar to be restricted to 85 deg C. The temperature rise should be restricted to 35 deg C above ambient temperature. OUTGOINGS - 3 no. of 125 AMPS TPN 25 KA MCCB and 150 amps AC3 duty contactor with 50 KVAR gas filled 415 V capacitor bank, auto-manual selector switch, start stop push button for manual operation including on/off indicating lamps and delay		
	bus bar shall be minimum 1.00 sq mm / amp. The Maximum allowable temperature for the Bus bar to be restricted to 85 deg C. The temperature rise should be restricted to 35 deg C above ambient temperature. OUTGOINGS - 3 no. of 125 AMPS TPN 25 KA MCCB and 150 amps AC3 duty contactor with 50 KVAR gas filled 415 V capacitor bank, auto-manual selector switch, start stop push button for manual operation including on/off indicating lamps and delay timer complete.		
	bus bar shall be minimum 1.00 sq mm / amp. The Maximum allowable temperature for the Bus bar to be restricted to 85 deg C. The temperature rise should be restricted to 35 deg C above ambient temperature. <u>OUTGOINGS</u> - <b>3 no. of 125 AMPS</b> TPN <b>25 KA</b> MCCB and <b>150 amps</b> AC3 duty contactor with <b>50 KVAR</b> gas filled <b>415 V</b> capacitor bank, auto-manual selector switch, start stop push button for manual operation including on/off indicating lamps and delay timer complete. <b>3 no. of 63 AMPS</b> TPN <b>25 KA</b> MCCB and <b>80 amps</b> AC3		
	bus bar shall be minimum 1.00 sq mm / amp. The Maximum allowable temperature for the Bus bar to be restricted to 85 deg C. The temperature rise should be restricted to 35 deg C above ambient temperature. <u>OUTGOINGS</u> - <b>3 no. of 125 AMPS</b> TPN <b>25 KA</b> MCCB and <b>150 amps</b> AC3 duty contactor with <b>50 KVAR</b> gas filled <b>415 V</b> capacitor bank, auto-manual selector switch, start stop push button for manual operation including on/off indicating lamps and delay timer complete. <b>3 no. of 63 AMPS</b> TPN <b>25 KA</b> MCCB and <b>80 amps</b> AC3 duty contactor with <b>25 KVAR</b> gas filled <b>415 V</b> capacitor bank,		
	bus bar shall be minimum 1.00 sq mm / amp. The Maximum allowable temperature for the Bus bar to be restricted to 85 deg C. The temperature rise should be restricted to 35 deg C above ambient temperature. <u>OUTGOINGS</u> - <b>3 no. of 125 AMPS</b> TPN <b>25 KA</b> MCCB and <b>150 amps</b> AC3 duty contactor with <b>50 KVAR</b> gas filled <b>415 V</b> capacitor bank, auto-manual selector switch, start stop push button for manual operation including on/off indicating lamps and delay timer complete. <b>3 no. of 63 AMPS</b> TPN <b>25 KA</b> MCCB and <b>80 amps</b> AC3		
	bus bar shall be minimum 1.00 sq mm / amp. The Maximum allowable temperature for the Bus bar to be restricted to 85 deg C. The temperature rise should be restricted to 35 deg C above ambient temperature. <u>OUTGOINGS</u> - <b>3 no. of 125 AMPS</b> TPN <b>25 KA</b> MCCB and <b>150 amps</b> AC3 duty contactor with <b>50 KVAR</b> gas filled <b>415 V</b> capacitor bank, auto-manual selector switch, start stop push button for manual operation including on/off indicating lamps and delay timer complete. <b>3 no. of 63 AMPS</b> TPN <b>25 KA</b> MCCB and <b>80 amps</b> AC3 duty contactor with <b>25 KVAR</b> gas filled <b>415 V</b> capacitor bank,		
	bus bar shall be minimum 1.00 sq mm / amp. The Maximum allowable temperature for the Bus bar to be restricted to 85 deg C. The temperature rise should be restricted to 35 deg C above ambient temperature. OUTGOINGS - 3 no. of 125 AMPS TPN 25 KA MCCB and 150 amps AC3 duty contactor with 50 KVAR gas filled 415 V capacitor bank, auto-manual selector switch, start stop push button for manual operation including on/off indicating lamps and delay timer complete. 3 no. of 63 AMPS TPN 25 KA MCCB and 80 amps AC3 duty contactor with 25 KVAR gas filled 415 V capacitor bank, auto-manual selector switch, start stop push button for manual operation including on/off indicating lamps and delay timer and selector switch, start stop push button for manual operation including on/off indicating lamps and delay	 SET	
	bus bar shall be minimum 1.00 sq mm / amp. The Maximum allowable temperature for the Bus bar to be restricted to 85 deg C. The temperature rise should be restricted to 35 deg C above ambient temperature. OUTGOINGS - 3 no. of 125 AMPS TPN 25 KA MCCB and 150 amps AC3 duty contactor with 50 KVAR gas filled 415 V capacitor bank, auto-manual selector switch, start stop push button for manual operation including on/off indicating lamps and delay timer complete. 3 no. of 63 AMPS TPN 25 KA MCCB and 80 amps AC3 duty contactor with 25 KVAR gas filled 415 V capacitor bank, auto-manual selector switch, start stop push button for	SET	
	bus bar shall be minimum 1.00 sq mm / amp. The Maximum allowable temperature for the Bus bar to be restricted to 85 deg C. The temperature rise should be restricted to 35 deg C above ambient temperature. OUTGOINGS - 3 no. of 125 AMPS TPN 25 KA MCCB and 150 amps AC3 duty contactor with 50 KVAR gas filled 415 V capacitor bank, auto-manual selector switch, start stop push button for manual operation including on/off indicating lamps and delay timer complete. 3 no. of 63 AMPS TPN 25 KA MCCB and 80 amps AC3 duty contactor with 25 KVAR gas filled 415 V capacitor bank, auto-manual selector switch, start stop push button for manual operation including on/off indicating lamps and delay timer and selector switch, start stop push button for manual operation including on/off indicating lamps and delay	SET	

	Design, manufacture, supply, testing and commissioning				
	of <b>DISTRIBUTION PANEL TYPE A</b> fabricated out of 16				
	SWG CRCA sheet steel, IP52, wall / floor mounting type. The				
	sheet steel shall undergo minimum 9 tank treatment followed				
	by finishing powder coating of min 60 micron thickness. the				
	board includes 415 V electrolitic Aluminium Bus Bar,				
	removable gland plates, cable glands, including connection				
	with outgoing feeders complete in all respect.				
	····· • ······························				
3					
3	The increasion NOOD shall be descent even of a based with				
	The incoming MCCB shall be thermal-magnetic based with				
	inbuilt O/L & S/C release with E/F protection and all				
	Outgoings MCCB's shall be thermal-magnetic based with				
	inbuilt O/L & S/C release.				
	All MCCB's shall be Ics = 100% Icu, with rotary handle & pad				
	locking arrangement, with adjustable O/L & S/C trip setting				
	as per load requirement. All TP MCCB shall be with solid				
	isolable neutral link. The breaking capacity specified is Ics				
	value. All outgoing MCB's shall be C type with 10 KA breaking				
	capacity.				
	The above board shall be complete with 3 nos. phase				
	indicating lights, flush mounted Ammeter, Voltmeter, CT's,				
	PT's, selector switches, protective fuses etc. at Incomer with				
	all inter connections by min. 2.5 sq.mm. Copper wires.				
	a oomoodono oy min. 2.0 sq.mm. Oopper wiles.				
ļ	INCOMER : 630 AMP FP MCCB				
	BUS BAR : 800 AMP,3 phase 50 HZ TPN high conductivity				
	electrolytic Aluminium bus bar of suitable length, insulated by				
	heat shrinkable sleeves. The current density of bus bar shall				
	be minimum 1.00 sq mm / amp.				
	The Maximum allowable temperature for the Bus bar to be		1	1	1
	restricted to 85 deg C. The temperature rise should be				
	restricted to 35 deg C above ambient temperature.				
	OUT GOINGS :				
	1 no 500 AMP FP MCCB (RISING MAIN TYPE A)				
	1 no 63 AMP TPN MCB (COMMON AREA DB)				
	2 no 63 AMP DP MCB (STILT AREA DB)				
	1 no 100 AMP FP MCB (SPARE )	1	SET		
	Design, manufacture, supply, testing and commissioning				
	of <b>DISTRIBUTION PANEL TYPE B</b> fabricated out of 16				
1					
	SWG CRCA sheet steel, IP52, wall / floor mounting type. The				
	sheet steel shall undergo minimum 9 tank treatment followed				
	sheet steel shall undergo minimum 9 tank treatment followed by finishing powder coating of min 60 micron thickness. the				
	sheet steel shall undergo minimum 9 tank treatment followed by finishing powder coating of min 60 micron thickness. the board includes 415 V electrolitic Aluminium Bus Bar,				
	sheet steel shall undergo minimum 9 tank treatment followed by finishing powder coating of min 60 micron thickness. the board includes 415 V electrolitic Aluminium Bus Bar, removable gland plates, cable glands, including connection				
	sheet steel shall undergo minimum 9 tank treatment followed by finishing powder coating of min 60 micron thickness. the board includes 415 V electrolitic Aluminium Bus Bar,				
	sheet steel shall undergo minimum 9 tank treatment followed by finishing powder coating of min 60 micron thickness. the board includes 415 V electrolitic Aluminium Bus Bar, removable gland plates, cable glands, including connection				
4	sheet steel shall undergo minimum 9 tank treatment followed by finishing powder coating of min 60 micron thickness. the board includes 415 V electrolitic Aluminium Bus Bar, removable gland plates, cable glands, including connection				
4	sheet steel shall undergo minimum 9 tank treatment followed by finishing powder coating of min 60 micron thickness. the board includes 415 V electrolitic Aluminium Bus Bar, removable gland plates, cable glands, including connection with outgoing feeders complete in all respect.				
4	sheet steel shall undergo minimum 9 tank treatment followed by finishing powder coating of min 60 micron thickness. the board includes 415 V electrolitic Aluminium Bus Bar, removable gland plates, cable glands, including connection				
4	sheet steel shall undergo minimum 9 tank treatment followed by finishing powder coating of min 60 micron thickness. the board includes 415 V electrolitic Aluminium Bus Bar, removable gland plates, cable glands, including connection with outgoing feeders complete in all respect.				
4	sheet steel shall undergo minimum 9 tank treatment followed by finishing powder coating of min 60 micron thickness. the board includes 415 V electrolitic Aluminium Bus Bar, removable gland plates, cable glands, including connection with outgoing feeders complete in all respect.				
4	sheet steel shall undergo minimum 9 tank treatment followed by finishing powder coating of min 60 micron thickness. the board includes 415 V electrolitic Aluminium Bus Bar, removable gland plates, cable glands, including connection with outgoing feeders complete in all respect. The incoming MCCB shall be thermal-magnetic based with inbuilt O/L & S/C release with E/F protection and all Outgoings MCCB's shall be thermal-magnetic based with inbuilt O/L & S/C release.				
4	sheet steel shall undergo minimum 9 tank treatment followed by finishing powder coating of min 60 micron thickness. the board includes 415 V electrolitic Aluminium Bus Bar, removable gland plates, cable glands, including connection with outgoing feeders complete in all respect. The incoming MCCB shall be thermal-magnetic based with inbuilt O/L & S/C release with E/F protection and all Outgoings MCCB's shall be thermal-magnetic based with inbuilt O/L & S/C release. All MCCB's shall be Ics = 100% Icu, with rotary handle & pad				
4	sheet steel shall undergo minimum 9 tank treatment followed by finishing powder coating of min 60 micron thickness. the board includes 415 V electrolitic Aluminium Bus Bar, removable gland plates, cable glands, including connection with outgoing feeders complete in all respect.         The incoming MCCB shall be thermal-magnetic based with inbuilt O/L & S/C release with E/F protection and all Outgoings MCCB's shall be thermal-magnetic based with inbuilt O/L & S/C release.         All MCCB's shall be Ics = 100% Icu, with rotary handle & pad locking arrangement, with adjustable O/L & S/C trip setting				
4	sheet steel shall undergo minimum 9 tank treatment followed by finishing powder coating of min 60 micron thickness. the board includes 415 V electrolitic Aluminium Bus Bar, removable gland plates, cable glands, including connection with outgoing feeders complete in all respect. The incoming MCCB shall be thermal-magnetic based with inbuilt O/L & S/C release with E/F protection and all Outgoings MCCB's shall be thermal-magnetic based with inbuilt O/L & S/C release. All MCCB's shall be Ics = 100% Icu, with rotary handle & pad locking arrangement, with adjustable O/L & S/C trip setting as per load requirement. All TP MCCB shall be with solid				
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5         The incoming MCCB shall be thermal-magnetic based with includio CL & SC release with E/F protection and all Chargoings MCCB shall be thermal-magnetic based with includio CL & SC release with E/F protection and all Chargoings MCCB shall be thermal-magnetic based with includion CL & SC release with E/F protection and all chargoing many for the display of the charge and the charge with the with adjustable CL & SC release with E/F protection and all charge interactions in the display of the charge and the charge with the with adjustable CL & SC release with adjustable CL & SC release with a shall be the with a solid isolable neutral link. The breaking capacity specified is to shall be interacting light, that mounted Ammeter. Voltmeter, CTs, and a line commetors by min. 25 sq.rm. Corpor wites.           INCOMER : 4:00 AMP FP MCCB         EUS BAR : 5:00 AMP, 5:00 Vites, 3 phase to H2 TPN high conductive leads the importance of the Bus bank.         Interaction and the adjustable hight, mashed by there with a line of the Bus bank to the restricted to 135 deg C above ambient temperature.           OUT GOINGS :         1 no 63 AMP FP MCCB (RISING MAIN TYPE C )         1 set to 35 deg C above ambient temperature.           OUT GOINGS :         1 no 63 AMP FP MCCB (RISING MAIN TYPE C )         1 SET           Design, manufacture, supply, testing and commissioning of MAIN LIFT Panel frainclasted out of 16 SWG CRCA sheet sheat hand under go minimum 9 to the sheet sheat hand with adjustable bid release of the sheet sheat hand with outgoing indices of the Amber of suitable length with outgoing release cable glands, including concertion with outgo minimum 9 to the sheet sheat hand hand be adjustable in all respect.           6         NCOMER :         MOIN LIFT Panel frainchard out of th						
The incoming MCCB shall be thermal-magnetic based with nobuli CL & SC release with <i>EF</i> protection and all Outgoings MCCBs shall be internal-magnetic based At MCCBs shall be late = 100 MCD, with rotary handle & sad as per load requirement. All TP MCCB shall be with solid isolable neural link. The brasking capacity specified is ics value. All toologing MCBs shall be Cytewish to KA brasking capacity. The above board shall be complete with 3 nos. phase incleating light, flush mounted Anneeter, Valmeter, CTs, PTS, actions to McBs, part 10 KA brasking capacity. MCCMMER 1: 400 AMP FP MCCB BUS BAR 1: 800 AMP = 500 Vitis 3, shaes 60 H2 TPH high conductively electrolycic. The association of the shall be site solid isolable and the site of the shall be complete with 3 nos. phase incleating light, flush mounted Anneeter, Valmeter, CTs, PTS, actions that here, PF MCCB BUS BAR 1: 800 AMP FP MCCB BUS BAR 1: 800 AMP FP MCCB Due bar shinkbe sileways. The current density of to be bar shinkbe sileways. The current density of the shall be minimum to bar and ange. The Maximum abwelde temperature <b>OUT GOINGS</b> : <b>OUT GOINGS</b> (RISING MAIN TYPE C) 1 no 63 AMP FP MCCB (RISING MAIN TYPE C) 1 no 63 AMP FP MCCB (RISING MAIN TYPE C) 1 no 63 AMP FP MCCB (RISING MAIN TYPE C) 1 no 63 AMP FP MCCB (RISING MAIN TYPE C) 1 no 63 AMP FP MCCB (RISING MAIN TYPE C) 1 no 63 AMP FP MCCB (RISING MAIN TYPE C) 1 no 63 AMP FP MCCB (RISING MAIN TYPE C) 1 no 63 AMP FP MCCB (RISING MAIN TYPE C) 1 no 63 AMP FP MCCB (RISING MAIN TYPE C) 1 no 63 AMP FP MCCB (RISING MAIN TYPE C) 1 no 63 AMP FP MCCB (RISING MAIN TYPE C) 1 no 63 AMP FP MCCB (RISING MAIN TYPE C) 1 no 63 AMP FP MCCB (RISING MAIN TYPE C) 1 no 63 AMP FP MCCB (RISING MAIN TYPE C) 1 no 60 AMP FP MCCB (RISING MAIN TYPE C) 1 no 60 AMP FP MCCB (RISING MAIN TYPE C) 1 no 60 AMP FP MCCB (RISING MAIN TYPE C) 1 no 60 AMP FP MCCB (RISING MAIN TYPE C) 1 no 60 AMP FP MCCB (RISING MAIN TYPE C) 1 no 60 AMP FMCCB (RISING MAIN TYPE C) 1 no 60 AMP FMCCB (RISING MAIN TYP		with outgoing feeders complete in all respect.				
The Incoming MCCB shall be thermal-magnetic based with nobuli CL & SC release with <i>EF</i> protection and all Cutgoring MCCBs shall be that is the set of the state of the state At MCCBs shall be it as 100 kino with rotary handle & set as per load requirement. All TP MCCB shall be with solid isolable neutral link. The breaking capacity specified is its rotate isolable neutral ink. The breaking capacity specified is its rotate isolable neutral ink. The breaking capacity specified is its rotate isolable neutral ink. The breaking capacity specified is its rotate isolable neutral ink. The breaking capacity specified is its rotate isolable neutral ink. The breaking capacity specified is its rotate isolable neutral ink. The breaking capacity specified is its rotate isolable neutral ink. The breaking capacity specified is its rotate isolable neutral in the isolable isolable isolable to rotate. If its 00 AMP isolable isolable isolable isolable conductivity electrylet. The MCB isolable isolable isolable conductivity electrylet. The MCB isolable isolable isolable restricted to 35 deg C above ambient temperature. OUT GOINGS : The Maximum abreakid temperature for the Bus bar to be restricted to 35 deg C above ambient temperature.						
inbuilt OL, & S.C. release with E/F protection and all           Outgrings MCCBS shall be the anotheramenic based with inbuilt OL, & S.C. release.           All MCCBS shall be the a folk, Lou, with rotary handle & pad locking arrangement, with adjustable OL, & S.C. try betting is colable neutral link. The bestaing capacity specified is loc value. All outgring MCBs shall be to complete with 3 nos. phase indicating lights, flush mounted Armetery Voltmeter, CTs, PTS, selector switches, protective fuses etc. at incomer with all instrume connections by min. 2.5 st, min. Cooper wises.           INCOMER : 400 AMP FP MCCB Bus Base 1: 500 AMP, 500 AMP, 500 AMP, 50 AMP, 500 AMP	5					
Outgoings MCCB's shall be thermal-magnetic based with Inbuilt OL & SC releases.         All MCCB's shall be tiss = 100% tool, with rotary handle & pad locking arrangement. With midulable DL & SC the patting as per load requirement. All TM MCB shall be with solid locking arrangement. When the breaking acquery specified is too capacity.           The above hoard with the becompter with a lock. The beak is too capacity.         The above hoard with a loc compter with a lock to solid all indicating lights, flush mounted Ammeter. Voltmeter, CTs. PT's, selector withches, protective flusses is c. at incomer with all inter connections by min. 2.5 sq.mm. Copper wires.           INCOMER : 400 AMP FP MCCB         INC MECH           BUS BAR : 500 AMP, Sphase 50 HZ TPN high conductivity electrolytic Aluminium bus far of suitable length, insulated by heat shnilds elevers. The current density of bus far shall be minimum 1.00 sq mm / ano.           The Adminum allowable temperature for the Bus bar to be restricted to 35 deg C. The temperature for bas bould be restricted to 35 deg C above ambient temperature.           OUT GOINGS :         1           1 no 53 AMP FP MCCB (ISING MAIN TYPE C.)         1           1 no 53 AMP FP MCCB (SPARE)         1           1 no 100 AMP FP MCCB (SPARE)         1           0 perior, manufacture, supply, testing and commissioning of MAIN LIFF Panel Inductad out of 15 WG CRCA where steel. IPS2, wall / Hoor mounting type. The sheet steel shall undergo priminum 0 shear throaded by finithing powler costing of mi 60 micron thickness. the board enclude 415 V electrick Aluminia Bias Rar, removable gang plates, cable glands, including connection with ounge plates, cable glands, including c						
AII MCD28 shall be ice a 10% four with rolary handle & paid locking arrangement, with adjustable OL & SIC trip setting as per load requirement. All TP MCD8 thall be with solid isolable neutral link. The breaking capacity specified is los view. All outpuids MCD8 shall be Cyte with 0 KA breaking capacity.         The day of the trip shall be with 0 KA breaking capacity specified is los view. All outpuids MCD8 shall be Cyte with 0.5 A breaking capacity.         The day of glipts, fink mounded Armsteiner. Voltmeter, CT3. PT5, selector witches, protective fuses else, at incomer with all inter connections by min. 2.5 sq.mm. Copper wires.         NCCOMER : 400 AMP FP MCCB         BUS BAR : 500 AMP. 500 Volts, 3 phase 50 HZ TPN high conductively electropick Annihum bus beserves. The current density of bus bar shall be nimm to 0.9 gm /n anp.         The Maximum allowable temperature for the Bus bar to be restricted to 0.5 deg C. The temperature.         OUT GOINGS :         1 no 63 AMP TPN MCB (COMMON AREA DB)         1 no 63 AMP TPN MCB (COMMON AREA DB)         1 no 63 AMP TPN MCB (COMMON AREA DB)         1 no 100 AMP FP MCD (RISNO MAN TYPE C)         Design, manufacture, supply, testing and commissioning of MAN LIFT Panel Inducated out of 65 WG CRCA sheet steel. H52, wall / floor mounting type. The atheet steel shall undergo minimum B is the testment histowed by finking the provided with shall be directive and the shall be minimum babs atheed the shall be induced by finking the dards, including connection with outgoing feeders complete in all respect.         6       NCOMER :         Nan Incomer S30 Amps FP MCCB, MCCB terminals shall be sublare co						
All MCCB's table bits = 100% tou, with rating handle & padiled bits and paragement. With adjustable OL. & SiC trip setting as per load requirement. All IT MCCB shall be with solid is loading method.         is loading anagement, with adjustable OL. & SiC trip setting applied bits is the value. All outgoing MCB's shall be Cryptee with 0 NA breaking capacity.       Intermediation of the setting setting and the setting setting and the setting						
locking arrangement, with adjustable (v1b. 4. Site trip setting as per load requirement. All TP MCCB shall be vith solid isolable neutral link. The breaking capacity specified is los (apacity).           The above bird shall be complete with 3 nos. phase from above bird shall be complete with 3 nos. phase from solve bird shall be complete with 3 nos. phase from solve bird shall be complete with 3 nos. phase from solve bird shall be complete with 3 nos. Phase from solve bird shall be complete with 3 nos.           NecOMER : 400 AMP FP MCCB         Image: Solve bird solve birds of birds of solve birds of solve birds of birds of solve birds of birds of birds of solve birds of solve birds of solve birds of birds of solve birds of birds of birds of solve birds of birds of birds of birds of solve birds of						
as per load requirement. All TP MCCB shall be with solid isoloble notural link. The breaking capacity specified is is is value. All outgoing MCBs shall be Complete with 3 nos. phase indicating lights, flush mounted Ammeter, Vottmeter, CTs. PTs, selector witches, protective fuxes etc. at incomer with all inter connections by min. 2.5 sq. mn. Copper wites.         INCOMER : 400 AMP FP MCCB       INCOMER is 500 AMP, 500 Volts, 3 phase 50 HZ. TPN high conductivity electrytic human bas ar of suitable length, bus bar shall be minimum 1.00 sq. mn / amp.         The Maximum allowable temperature for the Bus bar to be restricted to 85 deg C. The temperature rise should be restricted to 85 deg C. The temperature rise should be restricted to 85 deg C. The temperature file should be restricted to 85 deg C. The temperature rise should be restricted to 85 deg C. The temperature rise should be restricted to 85 deg C. The temperature rise should be restricted to 85 deg C. Barter and the should be restricted to 85 deg C. The temperature rise should be restricted to 85 deg C. Barter and the should be restricted to 85 deg C. Barter and the should be restricted to 85 deg C. Barter and the should be restricted to 85 deg C. The temperature rise should be restricted to 85 deg C. The temperature file should be restricted to 85 deg C. The temperature file should be restricted to 85 deg C. The temperature file should be restricted to 85 deg C. The temperature file should be restricted to 85 deg C. The temperature file should be the restricted to 85 deg C. The temperature file should be restricted to 85 deg C. The temperature file should be the restricted to 85 deg C. The temperature file should be restricted to 85 deg C. The temperature file should be restricted to 85 deg C. BARE I SET         Design: manufacture; the should be to be should be provide to mounting typer. The short should should be provided for incomer. <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
isolable neutral link. The breaking capacity specified is its value. All outgoing Motes shall be Crype with 10 KA breaking capacity.           The above board shall be complete with 3 nos. phase indicating lights, flush mounted Ammeter, Votmeter, CTs, PT, Selector withes, protective fuese site, at incomer with all inter connections by min. 2.5 sq. mm. Copper wires.           INCOMER         : 400 AMP FP MCCB           BUS BAR : 500 AMP, 500 Volts, 3 phase 50 HZ. TPN high conductivity descriptive Aurninium bus bar of suitable length, insulated by heat shrinkable seleves. The current density of bus bar shall be minium 1.00 sq. mm / anp.           The Maximum allowable temperature for the Bus bat to be restricted to 36 deg C above ambient temperature.           OUT GOINGS :           1 no 63 AMP FP MCCB (RISING MAIN TYPE C.)           1 no 63 AMP FP MCB (RCMMON AREA DB.)           1 no 63 AMP FP MCB (RCMMON AREA DB.)           1 no 63 AMP FP MCB (REMARE)           9           0 curr Goines :           1 no 63 AMP FP MCB (RCMAREA DE)           1 no 63						
value. All outgoing MCB's shall be Complete with 3 nos. phase indicating lights, this mounted Ammeter, Vottmeter, CTs, PT's, selector switches, protective fuses sete. at Incomer with all inter connections by min. 2.5 sq. mm. Copper vires.         INCOMER       : 400 AMP FP MCCB         BUS BAR : 500 AMP, 500 Volts, 3 phase 50 HZ TPN high conductivity electrotych clumnism to be and or suitable length, insulated by heat shrinkable sleeves. The current density of bus bar shall be minimum 1.00 sq mm / amp.         The Maximum allowable temperature for the Bus bar to be restricted to 36 deg C. The temperature is should be restricted to 36 deg C. The temperature.         OUT GOINGS :         1 no 63 AMP FP MCCB (SISING MAIN TYPE C.)         1 no 63 AMP FP MCCB (SISING MAIN TYPE C.)         1 no 100 AMP FP MCB (SPARE)						
capacity.       The above board shall be complete with 3 nos, phase indicating lights, flush mounted Ammeter, Votmeter, CTs, PTS, selector switches, protective fuses etc. all incomer with all inter connections by min. 2.5 sq. mm. Copper wires.         INCOMER       : 400 AMP FP MCCB         BUS BAR : 500 AMP, 500 Volts, 3 phase 50 HZ TPN high conductivity electrolytic Aluminium bus bar of suitable length, insulated by heat stirkable seleves. The current density of bus bar shall be minimum 1.00 sq. mm / amp.         The Maximum allowable temperature for the Bus bar to be restricted to 36 deg C. The temperature rise should be restricted to 36 deg C. The temperature rise should be restricted to 36 deg C. The temperature.         OUT GOINGS :       1         1 no 63 AMP FP MCCB (RIBING MAIN TYPE C.)       1         1 no 63 AMP TFN MCB (COMANO KAREA DB.)       5         0 court GOINGS :       1         0 no 63 AMP FTP InccB (RIBING MAIN TYPE C.)       1         1 no 63 AMP FTP InccB (RIBING MAIN TYPE C.)       1         1 no 63 AMP FTP InccB (COMANO KAREA DB.)       5         0 esign, manufacture, supply, testing and commissioning of MAIN LIFT Panel fabricated out of 16 SWG CRCA sheet statel, IPS2, wall / Note mounting type.       5         1 no 106 AMP FTP MCCB, MCCB, MCCB terminals shall be subtable to testive connection on on eside and Busbar couping feeders complete in all respect.       5         8       INCOMER :       1         Nan Incomer 630 Amps FP MCCB, MCCB terminals shall be subtable to testing connec						
The above board shall be complete with 3 nos. phase indicaning lights, thus mounted Ammeter, Voltmeter, CTs, PTs, selector switches, protective fuses etc. at Incomer with all inter connections by min 2.5 sq. mm. Copper wites.         INCOMER : 400 AMP FP MCCB         BUS BAR : 500 AMP, 500 Volts, 3 phase 50 HZ TPN high conductively decording Volts, 3 phases 50 HZ TPN high conductively decording Volts, 3 phases 50 HZ TPN high conductively decording Volts, 3 phases 50 HZ TPN high conductively decording Volts, 3 phases 50 HZ TPN high conductively decording Volts, 3 phases 50 HZ TPN high conductively decording Volts, 3 phases 50 HZ TPN high conductively decording Volts, 3 phases 50 HZ TPN high conductively decording Volts, 3 phases 50 HZ TPN high conductively decording Volts, 3 phases 50 HZ TPN high conductively decording Volts, 3 phases 50 HZ TPN high conductively decording Volts, 3 phases 50 HZ TPN high conductively decording Volts, 3 phases 50 HZ TPN high restricted to 85 deg C. The temperature rise should be restricted to 85 deg C. The temperature rise should be restricted to 85 deg C. The temperature rise should be restricted to 85 deg C. Rokes Conductively Physical Restricts and the phy						
Indicating lights, flush mounted Ammeter, Voltmeter, CTS.         PFS, selector switches, protective fuses etc. at Incomer with all inter connections by min. 25 sq.mm. Copper wires.         INCOMER : 400 AMP FP MCCB         BUS BAR : 500 AMP. 500 Volts, 3 phase 50 HZ. TPN high conductivity electorytic: Aluminium bus bar of suitable length, insulated by heat strinkable seleves. The current density of bus bar shall be minimum 1.00 sq.mm / amp.         The Maximum allowable temperature for the Bus bar to be restricted to 35 deg C. The temperature rise should be restricted to 35 deg C. The temperature rise should be restricted to 35 deg C. The temperature.         OUT GOINGS :       1 no 63 AMP FP MCCB (RISING MAIN TYPE C.)         1 no 63 AMP FP MCCB (RISING MAIN TYPE C.)		The above board shall be complete with 3 nos phase		-		
PTs, selector switches, protective fuses etc. at Incomer with all inter connections by min. 2.5 sq.mm. Copper wires.       Incomers : 400 AMP EPM CCB         INCOMER : 400 AMP. S00 Volis, 3 phase 50 HZ. TPN high conductively electropic Auminium bus ord suitable length, insulated by heat shrinkable sleeves. The current density of bus bar shall be minimum 1.00 sq.mm / amp       Intervent density of bus bar shall be minimum 1.00 sq.mm / amp         The Maximum allowable temperature for the Bus bar to be restricted to 85 deg C. The temperature rise should be restricted to 35 deg C above ambient temperature.       Intervent density of bus bar shall be minimum 1.00 sq.mm / amp         OUT GOINGS :       Intervent density of bus bar to be restricted to 35 deg C above ambient temperature.       Intervent density of bus bar shall be minimum 1.00 sq.mm / amp         Dut GOINGS :       Intervent density of bus bar shall be minimum 1.00 sq.mm / amp       Intervent density of bus bar shall be restricted to 35 deg C above ambient temperature.         Into 100 AMP FP MCB (COMMON AREA DB)       1       SET         Design, manufacture, supply, testing and commissioning of MAN LIFT Princt labicitated out of 16 SWC GRCA bees to the bard dender coating of min 60 micron thickness, the board notudes 415 V electrolitic Auminium Bus Bar, removable glands, including connection with outgoing feeders complete in all respect.       Imtervent density of bus bar density of bus bar shall be glands, including connection with outgoing feeders connection on one side and Busbar commenter with selector switch for incomer.       Imtervent density of selector switch for incomer.         BUSBAR:       Imterventer is selector						
all inter connections by min. 2.5 sq.mm. Copper wires.         INCOMER : 400 AMP FP MCCB         BUS BAR : 500 AMP. 500 Volks 3 phase 50 HZ TPN high conductivity electrolytic. Aluminum bus bar of suitable length, insulated by heat strinkable seleves. The current density of bus bar shall be minimum 1.00 sq mm / amp.         The Maximum allowable temperature for the Bus bar to be restricted to 85 deg C. The temperature rise should be restricted to 85 deg C. The temperature rise should be restricted to 85 deg C. The temperature rise should be restricted to 85 deg C. The temperature for the Dus bar to be restricted to 85 deg C. The temperature rise should be restricted to 85 deg C. The temperature rise should be restricted to 85 deg C. The temperature for the Dus bar to be restricted to 85 deg C. The temperature for the Dus bar to be restricted to 85 deg CADANE PT MCCB (RISING MAIN TYPE C.)         1 to 63 AMP FP MCCB (RISING MAIN TYPE C.)       1         1 to 100 AMP FP MCB (SPARE)       1         0 besign, manufacture, supply, testing and commissioning of MAIN LIFT Panel Endicated out of 15 WC CRCA sheet steel, IPS2, wall / floor mounting type. The sheet steel shall undergo minimum B us that restment.         6       INCOMER :         8       Main Incomer 630 Amps FP MCCB, INCCB terminals shall be suitable to receive connection on one side and Busbar connection on the other side.         800 amps TFN busbar chamber of suitable length with Aluminum busbars.         9 Too parated AWH Meter for incomer.         Provide C Toperated AWH Meter for incomer.         Provide C Toperated AWH Meter for incomer.         Provide						
BUS BAR : 500 AMP, 500 Volts, 3 phase 60 HZ TPN high conductivity electropite Aluminum bus bar of suitable length, insulated by heat similation with weak to be preserved and be minimum 1.00 sq mm / arp.           The Maximum allowable temperature for the Bus bar to be restricted to 35 deg C. The temperature for should be restricted to 35 deg C above ambient temperature.           OUT GOINGS :           1 no 63 AMP FP MCCB (RISING MAIN TYPE C )           1 no 63 AMP FP MCCB (RISING MAIN TYPE C )           1 no 63 AMP FP MCB (COMMON AREA DB )           1 no 100 AMP FP MCB (SPARE)           9           Design, manufacture, supply, testing and commissioning of MIN LIFT Panel fabricated out of 16 SWG CR6 Acheet stoel, IPS2, wall / floor mounting type. The sheet stoel shall undergo minimum blank remenvable gland plates, cable glands, including connection with outgoing feeders complete in all respect.           6           INCOMER :           800 amps FP McCB, MCCB, MCCB terminals shall be suitable to receive connection on one side and Busbar connection on the other side.           900 amps FP N busbar chamber of suitable length with Aluminum busbars.           900 amps FP Mosbar chamber of suitable length with Aluminum busbars.           900 amps FPN busbar cha						
BUS BAR : 500 AMP, 500 Volts, 3 phase 60 HZ TPN high conductivity electropite Aluminum bus bar of suitable length, insulated by heat similation with weak to be preserved and be minimum 1.00 sq mm / arp.           The Maximum allowable temperature for the Bus bar to be restricted to 35 deg C. The temperature for should be restricted to 35 deg C above ambient temperature.           OUT GOINGS :           1 no 63 AMP FP MCCB (RISING MAIN TYPE C )           1 no 63 AMP FP MCCB (RISING MAIN TYPE C )           1 no 63 AMP FP MCB (COMMON AREA DB )           1 no 100 AMP FP MCB (SPARE)           9           Design, manufacture, supply, testing and commissioning of MIN LIFT Panel fabricated out of 16 SWG CR6 Acheet stoel, IPS2, wall / floor mounting type. The sheet stoel shall undergo minimum blank remenvable gland plates, cable glands, including connection with outgoing feeders complete in all respect.           6           INCOMER :           800 amps FP McCB, MCCB, MCCB terminals shall be suitable to receive connection on one side and Busbar connection on the other side.           900 amps FP N busbar chamber of suitable length with Aluminum busbars.           900 amps FP Mosbar chamber of suitable length with Aluminum busbars.           900 amps FPN busbar cha						
conductivity electrolytic Aluminium bus bar of suitable length, insulated by heat shrinkable seleves. The current density of bus bar shall be minimum 1.00 sq mm / amp.         The Maximum allowable temperature for the Bus bar to be restricted to 35 deg C. The temperature rise should be restricted to 35 deg C. The temperature.         OUT GOINGS :         1 no 63 AMP FP MCCB (RISING MAIN TYPE C)         1 no 63 AMP FP MCCB (COMMON AREA DB)         1 no 700 AMP FP MCB (SPARE)         1 no 100 AMP FP MCB (SPARE)         2 no 100 AMP FP MCB (SPARE)         2 no 100 AMP FP MCB (SPARE)         3 no nonner 630 Amps FP MCCB, MCCB terminals shall be suitable to rece		INCOMER : 400 AMP FP MCCB				
conductivity electrolytic Aluminium bus bar of suitable length, insulated by heat shrinkable seleves. The current density of bus bar shall be minimum 1.00 sq mm / amp.         The Maximum allowable temperature for the Bus bar to be restricted to 35 deg C. The temperature rise should be restricted to 35 deg C. The temperature.         OUT GOINGS :         1 no 63 AMP FP MCCB (RISING MAIN TYPE C)         1 no 63 AMP FP MCCB (COMMON AREA DB)         1 no 700 AMP FP MCB (SPARE)         1 no 100 AMP FP MCB (SPARE)         2 no 100 AMP FP MCB (SPARE)         2 no 100 AMP FP MCB (SPARE)         3 no nonner 630 Amps FP MCCB, MCCB terminals shall be suitable to rece		BUS BAR : 500 AMP, 500 Volts. 3 phase 50 HZ TPN high			<u> </u>	
insulated by heat shrinkable sleeves. The current density of bus bar shall be minimum 1.00 sq mm / amp.         The Maximum allowable temperature for the Bus bar to be restricted to 35 deg C. The temperature fise should be restricted to 35 deg C above ambient temperature.         OUT GOINGS :         1 no 63 AMP FP MCCB (RISING MAIN TYPE C )         1 no 63 AMP TPN MCB (COMMON AREA DB)         1 no 100 AMP FP MCB (SPARE)         1 no 100 AMP FP MCB (SPARE)         1 no 63 adm P FM CB (SPARE)         1 no 100 AMP FP MCB (SPARE)         1 no 100 AMP FP MCB (SPARE)         1 no 100 AMP FP MCB (SPARE)         Design, manufacture, supply, testing and commissioning of MAN LIFT Panel fabricated out of 16 SWG CRCA sheet steel, IP52, wall / floor mounting type. The sheet steel shell undergo minimum 9 tank treatment followed by finishing powder coating of min 60 micron thickness. the board includes 415 V electroticit Auminum Bus Bar, removable gland plates, cable glands, including connection with outgoing feeders complete in all respect.         6       INCOMER :         800 amps TPN busbar chamber of suitable length with Altiminum busbars.         INDICATING PANEL :       Image: shall be suitable and suitable length with Altiminum busbars.         INDICATING PANEL :       Image: shall be provided for incomer.         Provide CT operated ammeter with selector switch for incomer.       Provide CT operated KWH Meter for incomer.         Provide CT operated KWH Meter for incomer.       Image: shall be provided for i						
bus bar shall be minimum 1.00 sq mm / amp.         The Maximum allowable temperature for the Bus bar to be restricted to 85 deg C. The temperature.         OUT GOINGS :         1 no 63 AMP FP MCCB (RISING MAIN TYPE C)         1 no 63 AMP FP MCB (COMMON AREA DB)         1 no 63 AMP FP MCB (SPARE)         1 no 100 AMP FP MCB (SPARE)         1 no 100 AMP FP MCB (SPARE)         1 no 100 AMP FP MCB (SPARE)         1 no 100 AMP FP MCB (SPARE)         1 set         Design, manufacture, supply, testing and commissioning of MAIN LIFT Panel fabricated out of 16 SWG CRC Asheet steel, IPS2, will / fior mounting type. The sheet steel shall undergo minimum 9 tank treatment followed by finishing powder calling d minic 0m microant thioreast. the board includes 415 V electrotic Aluminum Bus Bar, nervoxable gland plates, cable glands, including connection with outgoing feeders complete in all respect.         6       INCOMER :         800 amps TPN busbar chamber of suitable length with Aluminum busbars.         INDICATING PANEL :         3 no sphase indicating lamps each backed up with MCB and switch shall be provided for incomer.         Provide CT operated ammeter with selector switch for incomer.         Provide CT operated ammeter with selector switch for incomer.         Provide CT operated ammeter with selector switch for incomer.         Provide CT operated ammeter with selector switch for incomer.         Provide CT operated ammeter with selector switch for incomer.						
restricted to 35 deg C above ambient temperature.         OUT GOINGS :						
restricted to 35 deg C above ambient temperature.         OUT GOINGS :						
restricted to 35 deg Ĉ above ambient temperature.         OUT GOINGS :       1 no 63 AMP FP MCCB (RISING MAIN TYPE C.)         1 no 63 AMP FP MCCB (COMMON AREA DB )		The Maximum allowable temperature for the Bus bar to be				
OUT GOINGS :						
1 no 63 AMP FP MCCB (RISING MAIN TYPE C)       I         1 no 63 AMP TPN MCB (COMMON AREA DB)       I         1 no 100 AMP FP MCB (SPARE)       1         Design, manufacture, supply, testing and commissioning of MAIN LIFT Panel fabricated out of 16 SWG CRCA sheet steel, IP52, wall / floor mounting type. The sheet steel shall undergo minimum 9 tank treatment followed by finishing powder coating of min 60 mircon thickness. the board includes 415 V electrolitic Aluminium Bus Bar, removable gland plates, cable glands, including connection with outgoing feeders complete in all respect.         6       INCOMER :         Main Incomer 830 Amps FP MCCB, MCCB terminals shall be suitable to receive connection on one side and Busbar connection on the other side.         BUSBAR :       I         800 amps TPN busbar chamber of suitable length with Aluminium busbars.         INDICATING PANEL :       I         3 nos phase indicating lamps each backed up with MCB and switch shall be provided for incomer.       I         Provide C To perated ammeter with selector switch for incomer.       I         Provide C To perated XWH Meter for incomer.       I         Provide C To perated KWH Meter for incomer.       I         Provide C To perated KWH Meter for incomer.       I         Provide C To perated KWH Meter for incomer.       I         Provide C To perated KWH Meter for incomer.       I         Provide C To perated KWH Meter for incomer.       I		restricted to 35 deg C above ambient temperature.				
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2 Nos. 100 A FP MCCB (Spare)       The Lift Panel as described above and specifications		Main Incomer 630 Amps FP MCCB, MCCB terminals shall be suitable to receive connection on one side and Busbar connection on the other side. BUSBAR : 800 amps TPN busbar chamber of suitable length with Aluminium busbars. INDICATING PANEL : 3 nos phase indicating lamps each backed up with MCB and switch shall be provided for incomer. Provide CT operated ammeter with selector switch for incomer. Provide 0-500 Volts range Volt Meter with selector switch for incomer. Provide CT operated KWH Meter for incomer.				
The Lift Panel as described above and specifications		Main Incomer 630 Amps FP MCCB, MCCB terminals shall be suitable to receive connection on one side and Busbar connection on the other side. BUSBAR : 800 amps TPN busbar chamber of suitable length with Aluminium busbars. INDICATING PANEL : 3 nos phase indicating lamps each backed up with MCB and switch shall be provided for incomer. Provide CT operated ammeter with selector switch for incomer. Provide 0-500 Volts range Volt Meter with selector switch for incomer. Provide CT operated KWH Meter for incomer. OUTGOINGS				
		Main Incomer 630 Amps FP MCCB, MCCB terminals shall be suitable to receive connection on one side and Busbar connection on the other side. BUSBAR : 800 amps TPN busbar chamber of suitable length with Aluminium busbars. INDICATING PANEL : 3 nos phase indicating lamps each backed up with MCB and switch shall be provided for incomer. Provide CT operated ammeter with selector switch for incomer. Provide 0-500 Volts range Volt Meter with selector switch for incomer. Provide CT operated KWH Meter for incomer. OUTGOINGS 10 Nos. 100 A FP MCCB (10Towers Lift Panel)				
		Main Incomer 630 Amps FP MCCB, MCCB terminals shall be suitable to receive connection on one side and Busbar connection on the other side. BUSBAR : 800 amps TPN busbar chamber of suitable length with Aluminium busbars. INDICATING PANEL : 3 nos phase indicating lamps each backed up with MCB and switch shall be provided for incomer. Provide CT operated ammeter with selector switch for incomer. Provide 0-500 Volts range Volt Meter with selector switch for incomer. Provide CT operated KWH Meter for incomer. OUTGOINGS 10 Nos. 100 A FP MCCB (10Towers Lift Panel) 2 Nos. 100 A FP MCCB (Spare)				
		Main Incomer 630 Amps FP MCCB, MCCB terminals shall be suitable to receive connection on one side and Busbar connection on the other side.         BUSBAR :         800 amps TPN busbar chamber of suitable length with Aluminium busbars.         INDICATING PANEL :         3 nos phase indicating lamps each backed up with MCB and switch shall be provided for incomer.         Provide CT operated ammeter with selector switch for incomer.         Provide 0-500 Volts range Volt Meter with selector switch for incomer.         Provide CT operated KWH Meter for incomer.         OUTGOINGS         10 Nos. 100 A FP MCCB (10Towers Lift Panel)         2 Nos. 100 A FP MCCB (Spare)         The Lift Panel as described above and specifications				
		Main Incomer 630 Amps FP MCCB, MCCB terminals shall be suitable to receive connection on one side and Busbar connection on the other side.         BUSBAR :         800 amps TPN busbar chamber of suitable length with Aluminium busbars.         INDICATING PANEL :         3 nos phase indicating lamps each backed up with MCB and switch shall be provided for incomer.         Provide CT operated ammeter with selector switch for incomer.         Provide 0-500 Volts range Volt Meter with selector switch for incomer.         Provide CT operated KWH Meter for incomer.         OUTGOINGS         10 Nos. 100 A FP MCCB (10Towers Lift Panel)         2 Nos. 100 A FP MCCB (Spare)         The Lift Panel as described above and specifications		SET		

_	Design, manufacture, supply, testing and commissioning of <b>TOWER LIFT PANEL</b> fabricated out of 16 SWG CRCA sheet steel, IP52, wall / floor mounting type. The sheet steel shall undergo minimum 9 tank treatment followed by finishing powder coating of min 60 micron thickness. the board includes 415 V electrolitic Aluminium Bus Bar, removable gland plates, cable glands, including connection with outgoing feeders complete in all respect.				
7	INCOMER :				
	Main Incomer 100 Amps FP MCCB terminals shall be suitable				
	to receive connection on one side and Busbar connection on the other side.				
	BUSBAR :				
	160 amps TPN busbar chamber of suitable length with Aluminium busbars.				
	INDICATING PANEL :				
	3 nos phase indicating lamps each backed up with MCB and switch shall be provided for incomer.				
	Provide CT operated ammeter with selector switch for incomer.				
	Provide 0-500 Volts range Volt Meter with selector switch for incomer.				
	Provide CT operated KWH Meter for incomer.				
	OUTGOINGS				
	2 Nos. 63 A FP MCB (LIFT 1 & 2)				
	1 Nos. 63 A FP MCB (Spare)	5	SET		
8	FLOOR BOARDS :-(TOWER A,B,C FLATS)				
	Design, manufacture, suppling, fixing in position testing and commissioning of following MV switchgear panels suitable for 415 V, 3 phase, 4 wire, 50 Hz power distribution system. The panel shall be indoor, free standing, dust and vermin proof type compartmenetalized design fabricated out of 14 SWG CRCA sheet steel, complete with aluminium bus bars, seprate earth bus bar to be provided through out the length of the panel. The incoming and outgoing panel shall be accommodated a modular multitier arrangment and shall be interlocked to avoid paralleling, adequate size cable alley, painting, earthing, numbering, danger plate etc as required per specification and drawings, meter board shall be got approved by Engineer in charge before installation.				
	INCOMER:				
	1 no.125A, 30KA TPN MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters), with selector switch, matching cast resin CT's.				
	BUS BAR TPN Aluminium bus bar with heat Shrink Sleeve rated for				
	125A.				
				-	
	4 nos 63A TPN MCB Other items such as				
	1 Set of control wiring				
	1 Set of designation plates				
	All Items complete as above	40	SET		
		UT			
9	FLOOR BOARDS :-(TOWER D FLATS)			1	
	· · · ·		1	1	

	Design, manufacture, suppling, fixing in position testing and commissioning of following MV switchgear panels suitable for 415 V, 3 phase, 4 wire, 50 Hz power distribution system. The panel shall be indoor, free standing, dust and vermin proof type compartmenetalized design fabricated out of 14 SWG CRCA sheet steel, complete with aluminium bus bars, seprate earth bus bar to be provided through out the length of the panel. The incoming and outgoing panel shall be accommodated a modular multitier arrangment and shall be interlocked to avoid paralleling, adequate size cable alley, painting, earthing, numbering, danger plate etc as required per specification and drawings, meter board shall be got approved by Engineer in charge before installation.				
	INCOMER:				
	1 no.100 A, 30KA TPN MCCB with microprocessor based releases, ON indication, 1 no. multifunction meter (showing all power parameters), with selector switch, matching cast resin CT's.				
	BUS BAR				
	TPN Aluminium bus bar with heat Shrink Sleeve rated for 125A.				
	OUTGOING				
	2 nos 63A TPN MCB				
	Other items such as				
	1 Set of control wiring				
	1 Set of designation plates				
	All Items complete as above	5	SET		
10	External Lighting Panel				
	Design, manufacture, supply, installation, testing and commissioning of cubicle type panel fabricated out of 14 SWG CRCA sheet steel, floor mounted totally enclosed switchbaord suitable for use of 415 volts, 3 phase, 50 HZ complete with aluminium bus bar and all accessories including supply and fixing of following incoming and outgoing switchgears.				
	INCOMER:				
	One no. 100A 4P MCCB with microprocessor based releases, ON indication 1 no. multifunction meter (showing all power parameters), with selector switch, matching cast resin CT's.				
	BUS BAR				
	TPN Aluminium bus bar with heat Shrink Sleeve rated for 125A.				
	OUTGOING :				
	12 nos 32 A DP MCB				
	Other items such as				
	1 set of control wiring				
	1 Set of designation plates				
	All Items complete as above	1	NO		1
	<u>+</u>				
			1	1	1

	Design, fabrication, supply, installaion, testing and				
	commissioning of following capacity Rising Mains consisting				
	of total metal clad enclosure, <u>4</u> <u>POLE</u> high electrolytic				
	conductivity <u>aluminium</u> <u>conductor</u> bus bars fully				
	covered with heat shrinkable PVC coloured sleeves,				
	suitable for operation on 415V/650V 3 phase, 4 wire				
	50 cycles AC supply system. The construction should				
	be such that it will be dust and vermin proof to IP42 in				
	14G & front cover in 16G CRCA painted/ powder				
	coated sheet construction rated for 45°C ambient				
	temp. The Rising Mains should be built in convenient				
	sections complete with fire proof barriers, thrust pads,				
	expansion joints at intervals and straps for fixing on				
	the wall or floor mounted arrangement duly marked				
	with the Current carrying capacity and danger				
	plates/sticker. The entire length should be fitted with a				
	double run of 25 x 6mm Al earth bus. The Rising Mains				
	should be CPRI tested for 50 KA for 1 sec. The				
	supporting system shall be earth quake proof.				
	supporting system shar so cartin quare proof.				
	The supporting system shall be fail proof even in earth guake				
	The supporting system shall be fail proof even in earth quake situation.				
	500A/50 KA, <b>4Pole</b> , Aluminium	79	RM		
	315A/50 KA, <b>4Pole,</b> Aluminium	88	RM		
	200A/50 KA, <b>4Pole</b> , Aluminium	9	RM	1	
H	, <b>.</b>				
12	ADAPTOR BOX - INDOOR:				
12					
12	ADAPTOR BOX - INDOOR: Design, fabrication, supply, installation, testing and commissioning of following adaptor box housings fabricated out of 14G CRCA painted or powder coated (as approved) sheet steel for the Rising Mains fitted with following MCCB. The adaptor box shall be totally factory assembled complete with solid aluminium busbar links of rated capacity of MCCB to Risings Mains. The adaptor box should be complete with suitable size of glands plate for incoming cables, including shrouding of terminal ends. The construction shall be dust				
12	ADAPTOR BOX - INDOOR: Design, fabrication, supply, installation, testing and commissioning of following adaptor box housings fabricated out of 14G CRCA painted or powder coated (as approved) sheet steel for the Rising Mains fitted with following MCCB. The adaptor box shall be totally factory assembled complete with solid aluminium busbar links of rated capacity of MCCB to Risings Mains. The adaptor box should be complete with suitable size of glands plate for incoming cables, including shrouding of terminal ends. The construction shall be dust and vermin proof to IP42. 500 Amp/50KA, 4P MCCB with rotary operating mechanism with door interlock & a set of 3 Nos. phase indicating lights, voltmeter, ammeter along with selector switch, CT's and	5	NO		
12	ADAPTOR BOX - INDOOR: Design, fabrication, supply, installation, testing and commissioning of following adaptor box housings fabricated out of 14G CRCA painted or powder coated (as approved) sheet steel for the Rising Mains fitted with following MCCB. The adaptor box shall be totally factory assembled complete with solid aluminium busbar links of rated capacity of MCCB to Risings Mains. The adaptor box should be complete with suitable size of glands plate for incoming cables, including shrouding of terminal ends. The construction shall be dust and vermin proof to IP42. 500 Amp/50KA, 4P MCCB with rotary operating mechanism with door interlock & a set of 3 Nos. phase indicating lights, voltmeter, ammeter along with selector switch, CT's and	5			
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12	ADAPTOR BOX - INDOOR:         Design, fabrication, supply, installation, testing and commissioning of following adaptor box housings fabricated out of 14G CRCA painted or powder coated (as approved) sheet steel for the Rising Mains fitted with following MCCB. The adaptor box shall be totally factory assembled complete with solid aluminium busbar links of rated capacity of MCCB to Risings Mains. The adaptor box should be complete with suitable size of glands plate for incoming cables, including shrouding of terminal ends. The construction shall be dust and vermin proof to IP42.         500 Amp/50KA, 4P MCCB with rotary operating mechanism with door interlock & a set of 3 Nos. phase indicating lights, voltmeter, ammeter along with selector switch, CT's and control fuses.         315Amp/50KA, 4P MCCB with rotary operating mechanism with door interlock & a set of 3 Nos. phase indicating lights, voltmeter, ammeter along with selector switch, CT's and control fuses.		NO		
	ADAPTOR BOX - INDOOR:         Design, fabrication, supply, installation, testing and commissioning of following adaptor box housings fabricated out of 14G CRCA painted or powder coated (as approved) sheet steel for the Rising Mains fitted with following MCCB. The adaptor box shall be totally factory assembled complete with solid aluminium busbar links of rated capacity of MCCB to Risings Mains. The adaptor box should be complete with suitable size of glands plate for incoming cables, including shrouding of terminal ends. The construction shall be dust and vermin proof to IP42.         500 Amp/50KA, 4P MCCB with rotary operating mechanism with door interlock & a set of 3 Nos. phase indicating lights, voltmeter, ammeter along with selector switch, CT's and control fuses.         315Amp/50KA, 4P MCCB with rotary operating mechanism with door interlock & a set of 3 Nos. phase indicating lights, voltmeter, ammeter along with selector switch, CT's and control fuses.		NO		
	ADAPTOR BOX - INDOOR:         Design, fabrication, supply, installation, testing and commissioning of following adaptor box housings fabricated out of 14G CRCA painted or powder coated (as approved) sheet steel for the Rising Mains fitted with following MCCB. The adaptor box shall be totally factory assembled complete with solid aluminium busbar links of rated capacity of MCCB to Risings Mains. The adaptor box should be complete with suitable size of glands plate for incoming cables, including shrouding of terminal ends. The construction shall be dust and vermin proof to IP42.         500 Amp/50KA, 4P MCCB with rotary operating mechanism with door interlock & a set of 3 Nos. phase indicating lights, voltmeter, ammeter along with selector switch, CT's and control fuses.         315Amp/50KA, 4P MCCB with rotary operating mechanism with door interlock & a set of 3 Nos. phase indicating lights, voltmeter, ammeter along with selector switch, CT's and control fuses.         REDUCING UNITS         supply of redusing boxes with termination on both ends	0	NO		
	ADAPTOR BOX - INDOOR:         Design, fabrication, supply, installation, testing and commissioning of following adaptor box housings fabricated out of 14G CRCA painted or powder coated (as approved) sheet steel for the Rising Mains fitted with following MCCB. The adaptor box shall be totally factory assembled complete with solid aluminium busbar links of rated capacity of MCCB to Risings Mains. The adaptor box should be complete with suitable size of glands plate for incoming cables, including shrouding of terminal ends. The construction shall be dust and vermin proof to IP42.         500 Amp/50KA, 4P MCCB with rotary operating mechanism with door interlock & a set of 3 Nos. phase indicating lights, voltmeter, ammeter along with selector switch, CT's and control fuses.         315Amp/50KA, 4P MCCB with rotary operating mechanism with door interlock & a set of 3 Nos. phase indicating lights, voltmeter, ammeter along with selector switch, CT's and control fuses.         REDUCING UNITS         supply of redusing boxes with termination on both ends         315 amp , 50KA	0	NO		
	ADAPTOR BOX - INDOOR:         Design, fabrication, supply, installation, testing and commissioning of following adaptor box housings fabricated out of 14G CRCA painted or powder coated (as approved) sheet steel for the Rising Mains fitted with following MCCB. The adaptor box shall be totally factory assembled complete with solid aluminium busbar links of rated capacity of MCCB to Risings Mains. The adaptor box should be complete with suitable size of glands plate for incoming cables, including shrouding of terminal ends. The construction shall be dust and vermin proof to IP42.         500 Amp/50KA, 4P MCCB with rotary operating mechanism with door interlock & a set of 3 Nos. phase indicating lights, voltmeter, ammeter along with selector switch, CT's and control fuses.         315Amp/50KA, 4P MCCB with rotary operating mechanism with door interlock & a set of 3 Nos. phase indicating lights, voltmeter, ammeter along with selector switch, CT's and control fuses.         REDUCING UNITS         supply of redusing boxes with termination on both ends	0	NO		
	ADAPTOR BOX - INDOOR:         Design, fabrication, supply, installation, testing and commissioning of following adaptor box housings fabricated out of 14G CRCA painted or powder coated (as approved) sheet steel for the Rising Mains fitted with following MCCB. The adaptor box shall be totally factory assembled complete with solid aluminium busbar links of rated capacity of MCCB to Risings Mains. The adaptor box should be complete with suitable size of glands plate for incoming cables, including shrouding of terminal ends. The construction shall be dust and vermin proof to IP42.         500 Amp/50KA, 4P MCCB with rotary operating mechanism with door interlock & a set of 3 Nos. phase indicating lights, voltmeter, ammeter along with selector switch, CT's and control fuses.         315Amp/50KA, 4P MCCB with rotary operating mechanism with door interlock & a set of 3 Nos. phase indicating lights, voltmeter, ammeter along with selector switch, CT's and control fuses.         REDUCING UNITS         supply of redusing boxes with termination on both ends         315 amp , 50KA	0	NO		

	Supply and installation of following <b><u>4P</u></b> <u>MCCB</u> of breaking			
	capacity as called for, for fixing in the incoming Tap-off			
	box. Tap-off box housing shall be fabricated out of 14G			
	CRCA painted or powder coated (as approved) sheet			
	steel. The tap-off box should be factory fabricated and			
	complete with solid aluminium links of rated capacity			
	from MCCB to rising mains and suitable size of gland			
	plate etc. The tap-off box shall be suitable for			
	termination of XLPE insulated AI. conductor armoured			
	cable including shrouding of terminal ends. as			
	required. The construction shall be dust and vermin			
	proof to IP42.			
	125Amp, <b>4P MCCB, 25KA</b>	45	NO	
	100Amp, <b>4P MCCB, 25KA</b>	5	NO	
	Total (MR)			
15	LT CABLE AND ACCESSORIES			
10	LI CABLE AND ACCESSORIES			
	SUPPLY OF L.T. CABLE:			
	Supplying of following sizes of 1.1 KV grade multicore			
	aluminium conductor XLPE insulated armoured cable			
	conforming to IS:7098 (Part - I) complete with all			
	amendments etc. as required			
	3.5 C X 300 Sq.mm AI. XLPE arm.	400	Mtrs.	
	3.5 C X 240 Sq.mm Al. XLPE arm.	240	Mtrs.	
	3.5 C X 185 Sq.mm AI. XLPE arm.	100	Mtrs.	
	3.5 C X 150 Sq.mm AI. XLPE arm.	150	Mtrs.	
	3.5 C X 120 Sq.mm AI. XLPE arm.	50	Mtrs.	
		60	-	
	3.5 C X 95 Sq.mm Al. XLPE arm.		Mtrs.	
	3.5 C X 70 Sq.mm AI. XLPE arm.	50	Mtrs.	
	3.5 C X 50 Sq.mm Al. XLPE arm.	60	Mtrs.	
	3.5 C X 35 Sq.mm Al. XLPE arm.	80	Mtrs.	
	3.5 C X 25 Sq.mm Al. XLPE arm.	100	Mtrs.	
	TOTAL(MR)			
	MV CABLE LAYING			
	Laying of one number PVC insulated and PVC sheathed /			
	XLPE power cable of 1.1 KV grade of following size direct in			
	ground including excavation, sand cushioning, protective covering and refilling the trench etc as required.			
	covering and remining the trench etc as required.			
	Upto 35 sq. mm	180	Mtrs	
	Above 35 sg. mm and upto 95 sg. mm	170	Mtrs	1
	Above 95 sq. mm and upto 185 sq. mm	300	Mtrs	
		640		
	Above 185 sq. mm and upto 400 sq. mm TOTAL (DSR)	040	Mtrs	
	MV CABLE JOINTING & END TERMINATION			
	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.			
	3½ X 25 sq. mm (28mm)	2	Each	1
	3½ X 25 sq. mm (20mm)	2	Each	
	3½ X 50 sq. mm (35mm)	2		+
			Each	
	3½ X 70 sq. mm (38mm)	1	Each	
	3½ X 95 sq. mm (45mm)	1	Each	
	3½ X 120 sq. mm (45mm)	2	Each	
	3½ X 150 sq. mm (50mm)	2	Each	
	3½ X 185 sq. mm (57mm)	4	Each	
	3½ X 240 sq. mm (62mm)	4	Each	1
	3½ X 300 sq. mm (70mm)	8	Each	
	TOTAL(DSR)	-		1
16	HT CABLE AND ACCESSORIES			
10				

	Supply of H.T. Cable		T		
	Supply of following 11 KV( UE) grade multicore Aluminium				
	conductor XLPE insulated cable, insulation screening with				
	extruded semi conducting compound in combination with				
	copper tape armoured cores laid up, inner sheath of PVC				
	tape, galvanised steel flat strip armoured and overall PVC				
	sheathed cable conforming to IS: 7098 (Part - II) and				
	complete with all latest amendments etc. complete as required.				
	3 C x 240 Sq. mm 11 KV (UE)	110	Mtrs.		
	TOTAL(MR)		1	ļ	
	H.T. Cable Laying-DSR ITEM				
	H V CABLE LAYING				
	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 11 KV grade of following size direct in ground including excavation, sand cushioning, protective				
	covering and refilling the trench etc as required.				
	Above 120 sq. mm and upto 400 sq. mm	110	Meter		
	H.T Termination: DSR ITEM				
	Supply and making Indoor cable end jointing with cast resin compund, including lugs and other jointing materials for following size of 3 core, XLPE aluminium conductor cable of				
	11KV (UE) grade as required.				
	3 C x 240 Sq.mm ( 11KV UE )	1	Sets		
	Supply and making Outdoor cable end jointing with cast resin compund, including lugs and other jointing materials for following size of 3 core, XLPE aluminium conductor cable of 11KV (UE)grade as required.				
	3 C x 240 Sq.mm ( 11KV UE )	2	Sets		
	Total (DSR)				
17	CABLE TRAY				
17	Supplying and installing following size of perforated pre-				
	painted M.S. cable trays with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with M.S. suspenders including bolts & nuts, painting suspenders etc as				
	required. 100 mm width X 50 mm depth X 1.6 mm thickness	25	Metre		
	150 mm width X 50 mm depth X 1.6 mm thickness	25	Metre		
	300 mm width X 50 mm depth X 1.6 mm thickness	25	Metre		
	450 mm width X 50 mm depth X 2.0 mm thickness	25	Metre		
	600 mm width X 50 mm depth X 2.0 mm thickness	30	Metre		
	750 mm width X 62.5 mm depth X 2.0 mm thickness		Motro		
	·	30	Metre		
	900 mm width X 62.5 mm depth X 2.0 mm thickness	45	Metre		
	Total (DSR)				
45			<u> </u>		
18	MISCELLANEOUS ITEMS - DSR 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 enamelled white on both sides, and with inscription in single				
	red colour on front side as required .	10	NOS		
	Providing and fixing <b>H.T. danger notice</b> plate of 250 mm x 200 mm made of mild steel, at least 2 mm thick and vitreous enamelled white on both sides, and with inscription in single				
	red colour on front side as required .	n	NOC		
	red colour on front side as required . Total(DSR)	2	NOS		
		2	NOS		

	S/F of shock treatment chart (prescribed under I.E.rules)			
	duly framed with glass and supported from back with hard			
	board with supply of all material labour T & P etc for proper			
	completion of work. (Approx front area = 1.20 sq M)			
		3	NOS	
	Supply and fixing of First aid box as approved by Indian red			
	cross conforming to IS : 2217.	1	NOS	
	CO2 Fire Extinguishers 4.5 kg capacity complete in all			
	respect ISI : 15683 marked	1	NOS	
	ABC FIRE EXTINGUISHER 4 KG capacity complete in all			
	respect ISI : 15683 marked	1	NOS	
	Fire Bucket stand made of M S angle suitable for and with 4			
	Nos Fire Buckets of 9.5 Ltrs capacity	1	NOS	
	Supply of rubber gloves of 11 KV grade as per IS : 4770.			
		3	Set	
	Supply and fixing of cable route maker	2	NOS	
	ANTI SKID RUBBER MAT 1 mtr x 2 mtr. 3mm thick ISI -			
	15652 marked	3	м	
	Total (MR)			
20	EARTHING			
	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. (BODY EARTHING)	~~	Cat	
		22	Set	
	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. (NEUTRAL			
	EARTHING)	4	Set	
	Providing and fixing 25 mm X 5 mm G.I. strip on surface			
	or in recess for connections etc. as required.			
	or in recess for connections etc. as required.	200	Mts	
	Providing and fixing 6 SWG dia G.I. wire on surface or	200		
	<b>o</b>	000	Mts	
	in recess for loop earthing as required.	900	IVILS	
	Providing and fixing earth bus of 50 mm X 5 mm copper			
	strip on surface for connections etc. as required.			
		40	Mts	
	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.	3	Each	
	Total(DSR)			
	Total(DSR)			
21	11KV SINGLE PANEL BOARD (NEAR METER) :-			
	Supply, Delivery, Assembly, Installation, Testing and			
	Commissioning of one no. out going type Vacuum circuit			
	breakers fully draw out type 50HZ A.C. Suitable for fault level			
	350 MVA 630 AMP with current transformation ratio 50/25/5A			
	Comlete with 630AMP. AL. BUS bars power pack and relays			1
	Comlete with 630AMP. AL. BUS bars power pack and relays			
	Comlete with 630AMP. AL. BUS bars power pack and relays and other metering arrangements including floor steel and			
	Comlete with 630AMP. AL. BUS bars power pack and relays and other metering arrangements including floor steel and minor civil work etc. as per required for proper completion of	1	Nos	
	Comlete with 630AMP. AL. BUS bars power pack and relays and other metering arrangements including floor steel and minor civil work etc. as per required for proper completion of	1	Nos	
	Comlete with 630AMP. AL. BUS bars power pack and relays and other metering arrangements including floor steel and minor civil work etc. as per required for proper completion of work.	1	Nos	
	Comlete with 630AMP. AL. BUS bars power pack and relays and other metering arrangements including floor steel and minor civil work etc. as per required for proper completion of work. 11KV HT PANEL: CONSISTING OF THREE VCB	1	Nos	
22	Comlete with 630AMP. AL. BUS bars power pack and relays and other metering arrangements including floor steel and minor civil work etc. as per required for proper completion of work. 11KV HT PANEL: CONSISTING OF THREE VCB BREAKERS	1	Nos	
22	Comlete with 630AMP. AL. BUS bars power pack and relays and other metering arrangements including floor steel and minor civil work etc. as per required for proper completion of work. 11KV HT PANEL: CONSISTING OF THREE VCB BREAKERS Supply, Installation, Testing and Commissioning of one	1	Nos	
22	Comlete with 630AMP. AL. BUS bars power pack and relays and other metering arrangements including floor steel and minor civil work etc. as per required for proper completion of work. <b>11KV HT PANEL: CONSISTING OF THREE VCB BREAKERS</b> Supply, Installation, Testing and Commissioning of one incoming, two outgoing, indoor type, 800 A, 11KV, 3	1	Nos	
22	Comlete with 630AMP. AL. BUS bars power pack and relays and other metering arrangements including floor steel and minor civil work etc. as per required for proper completion of work. <b>11KV HT PANEL: CONSISTING OF THREE VCB BREAKERS</b> Supply, Installation, Testing and Commissioning of one incoming, two outgoing, indoor type, 800 A, 11KV, 3 Phase, 50 Hz, earthed, 350 MVA fault level Vacuum	1	Nos	
22	Comlete with 630AMP. AL. BUS bars power pack and relays and other metering arrangements including floor steel and minor civil work etc. as per required for proper completion of work. <b>11KV HT PANEL: CONSISTING OF THREE VCB BREAKERS</b> Supply, Installation, Testing and Commissioning of one incoming, two outgoing, indoor type, 800 A, 11KV, 3	1	Nos	
22	Comlete with 630AMP. AL. BUS bars power pack and relays and other metering arrangements including floor steel and minor civil work etc. as per required for proper completion of work. <b>11KV HT PANEL: CONSISTING OF THREE VCB BREAKERS</b> Supply, Installation, Testing and Commissioning of one incoming, two outgoing, indoor type, 800 A, 11KV, 3 Phase, 50 Hz, earthed, 350 MVA fault level Vacuum	1	Nos	
22	Comlete with 630AMP. AL. BUS bars power pack and relays and other metering arrangements including floor steel and minor civil work etc. as per required for proper completion of work. <b>11KV HT PANEL: CONSISTING OF THREE VCB BREAKERS</b> Supply, Installation, Testing and Commissioning of one incoming, two outgoing, indoor type, 800 A, 11KV, 3 Phase, 50 Hz, earthed, 350 MVA fault level Vacuum Circuit Breaker motor operated, expendable type as per IS: 13118, IEC-56, totally steel sheet enclosed, fully		Nos	
22	Comlete with 630AMP. AL. BUS bars power pack and relays and other metering arrangements including floor steel and minor civil work etc. as per required for proper completion of work. <b>11KV HT PANEL: CONSISTING OF THREE VCB</b> <b>BREAKERS</b> Supply, Installation, Testing and Commissioning of one incoming, two outgoing, indoor type, 800 A, 11KV, 3 Phase, 50 Hz, earthed, 350 MVA fault level Vacuum Circuit Breaker motor operated, expendable type as per IS: 13118, IEC-56, totally steel sheet enclosed, fully Interlocked, Indoor industrial pattern, Metal clad,	1	Nos	
22	Comlete with 630AMP. AL. BUS bars power pack and relays and other metering arrangements including floor steel and minor civil work etc. as per required for proper completion of work. <b>11KV HT PANEL: CONSISTING OF THREE VCB</b> <b>BREAKERS</b> Supply, Installation, Testing and Commissioning of one incoming, two outgoing, indoor type, 800 A, 11KV, 3 Phase, 50 Hz, earthed, 350 MVA fault level Vacuum Circuit Breaker motor operated, expendable type as per IS: 13118, IEC-56, totally steel sheet enclosed, fully Interlocked, Indoor industrial pattern, Metal clad, Horizontal drawout, floor mounting, earthed bus bar,	1	Nos	
22	Comlete with 630AMP. AL. BUS bars power pack and relays and other metering arrangements including floor steel and minor civil work etc. as per required for proper completion of work. <b>11KV HT PANEL: CONSISTING OF THREE VCB</b> <b>BREAKERS</b> Supply, Installation, Testing and Commissioning of one incoming, two outgoing, indoor type, 800 A, 11KV, 3 Phase, 50 Hz, earthed, 350 MVA fault level Vacuum Circuit Breaker motor operated, expendable type as per IS: 13118, IEC-56, totally steel sheet enclosed, fully Interlocked, Indoor industrial pattern, Metal clad,	1	Nos	
22	Comlete with 630AMP. AL. BUS bars power pack and relays and other metering arrangements including floor steel and minor civil work etc. as per required for proper completion of work. <b>11KV HT PANEL: CONSISTING OF THREE VCB BREAKERS</b> Supply, Installation, Testing and Commissioning of one incoming, two outgoing, indoor type, 800 A, 11KV, 3 Phase, 50 Hz, earthed, 350 MVA fault level Vacuum Circuit Breaker motor operated, expendable type as per IS: 13118, IEC-56, totally steel sheet enclosed, fully Interlocked, Indoor industrial pattern, Metal clad, Horizontal drawout, floor mounting, earthed bus bar, copper bus bar with heat shrink sleeve.	1	Nos	
	Comlete with 630AMP. AL. BUS bars power pack and relays and other metering arrangements including floor steel and minor civil work etc. as per required for proper completion of work. <b>11KV HT PANEL: CONSISTING OF THREE VCB BREAKERS</b> Supply, Installation, Testing and Commissioning of one incoming, two outgoing, indoor type, 800 A, 11KV, 3 Phase, 50 Hz, earthed, 350 MVA fault level Vacuum Circuit Breaker motor operated, expendable type as per IS: 13118, IEC-56, totally steel sheet enclosed, fully Interlocked, Indoor industrial pattern, Metal clad, Horizontal drawout, floor mounting, earthed bus bar, copper bus bar with heat shrink sleeve. <b>INCOMER</b>	1	Nos	
	Comlete with 630AMP. AL. BUS bars power pack and relays and other metering arrangements including floor steel and minor civil work etc. as per required for proper completion of work. <b>11KV HT PANEL: CONSISTING OF THREE VCB BREAKERS</b> Supply, Installation, Testing and Commissioning of one incoming, two outgoing, indoor type, 800 A, 11KV, 3 Phase, 50 Hz, earthed, 350 MVA fault level Vacuum Circuit Breaker motor operated, expendable type as per IS: 13118, IEC-56, totally steel sheet enclosed, fully Interlocked, Indoor industrial pattern, Metal clad, Horizontal drawout, floor mounting, earthed bus bar, copper bus bar with heat shrink sleeve.	1	Nos	
	Comlete with 630AMP. AL. BUS bars power pack and relays and other metering arrangements including floor steel and minor civil work etc. as per required for proper completion of work. <b>11KV HT PANEL: CONSISTING OF THREE VCB BREAKERS</b> Supply, Installation, Testing and Commissioning of one incoming, two outgoing, indoor type, 800 A, 11KV, 3 Phase, 50 Hz, earthed, 350 MVA fault level Vacuum Circuit Breaker motor operated, expendable type as per IS: 13118, IEC-56, totally steel sheet enclosed, fully Interlocked, Indoor industrial pattern, Metal clad, Horizontal drawout, floor mounting, earthed bus bar, copper bus bar with heat shrink sleeve. <b>INCOMER</b>	1	Nos	

	Current Transfomer-			
	Ratio: 50/5A			
	CL:1 & 5P10, 15VA			
	Potential Transformer-			
	Ratio: 11KV/110V			
	CL:1,100VA			
-				
	Relays-			
	IDMT 3 O/C + 1 E/F RELAY			
	METERS-			
	Digital Ammeter with selector switch			
	Digital Voltmeter with selector switch			
	PF meter			
-				
	Set of indication Lamps-			
	Red-ON			
	Green-OFF			
-	White-Trip Circuit Healthy			
	Amber-Trip Condition			
-	Set of wiring, Ferrules & Fuses Power-Pack 110/24V			
	DC Supply for simultaneous tripping of three breakers.			
	BUSBAR-			
	800A copper bus bar with heat Shrink Sleeve.			
	OUTGOING-			
	<b>2 Nos</b> -11KV BUS each equipped with the following:			
	Vacuum Circuit Breaker - 630Amp Three Phase			
	Current Transfomer-			
	Ratio: 50/5A			
-				
	CL:1 & 5P10, 15VA			
	Potential Transformer-			
	Ratio: 11KV/110V			
	CL:1,100VA			
	Relays-			
	IDMT 3 O/C + 1 E/F RELAY			
	METERS-			
	Digital Ammeter with selector switch			
	Digital Entergy meter			
	Set of indication Lamp-			
	Red-ON			
	Green-OFF			
-				
	White-Trip Circuit Healthy			
	Amber-Trip Condition			
	Set of wiring, Ferrules & Fuses.			
	ALL ITEMS COMPLETE AS ABOVE	1	NO	
23	OIL COOLED TRANSFORMER:			
23				
	Supply, Installation, Testing and Commissioning of Outdoor type oil cooled ONAN, 1000 KVA, 11/0.433 KV,			
	3 Phase, 50Hz, Dyn11 vector group, copper wound,			
	Transformer with metal enclosure , lockable doors			
	switches and ON LOAD Tap Changer with RTCC			
	arrangement on HV + 5 to - 15 in steps of 1.25% having			
	cable end box on HV side suitable of 3C x 240 sq. mm.			
	XLPE cable of 11 KV grade and 6 Runs. 3-1/2 core 300 sq mm on LV side complete with all accessaries i.e.			
	OTI, WTI, MOG, Buchholz Relay etc. including supply,			
	laying, terminating control cable between transformer			
	and HT panel and complete test prior to handing over			
	shall be conducted at site.			
	All instruments contact wiring to be done up to			
	Marshalling box.			
	ALL ITEMS COMPLETE AS ABOVE	1	NO	
24				
25	DIESEL GENERATOR SET:			

	Supply, Intastallation, Testing & Commissioning of				
	<b>500KVA</b> Capacity water cooled DG Set with suitable				
	capacity engine directly coupled with alternator for 415				
	volt, 3 phase, 50 Hz, 4 wire, generation system				
	complete with accessories, fuel oil tank & control panel				
	etc as required and sound proof acquastic enclosure				
	approved by CPCB for the DG SET, including supply,				
	fixing of antivibration pads suitable for <b>500KVA DG Set</b> ,				
	5				
	provision of conrol cable from engine to control panel.				
	Provision of fuel pipe line of suitable size from fuel tank				
	to engine and over flow pipe from engine to fuel tank				
	complete with all fittings. Supply, Intallation of starting				
	batteries of suitable AH as recommended by				
	,				
	manufecturer heavy duty complete as required at site				
	complete with stand and battery charger residentials				
	silenser suitabe for diesel engine exhaust pipe line				
	complete flange, bend, flexible pipe all as required and				
	as directed by Engineer-incharge.				
	Base frame and DG radiator.				
	Resistoflex antivibration pads or manufecturer standard				
	pads.				
	990 Ltrs Day tank for fuel with markings				
	,				
	ECP Panel mounted on a separate frame.				
	Suitable space heater for alternators.				
	Lub oil drain arrangement.				
	č				
	Suitable amended arrangement for cable or bus duct				
	and arrangement for mounting differential /REF CTs.				
	DG shall be completely filled with oil for 10 hours				
	running.				
		1	NO		
		-	INU INU	1	1
	TOTAL(MR)				
26	. ,				
26	POLE ERECTION				
26	POLE ERECTION Erection of RCC/ PCC pole of following length in brick ballast				
26	POLE ERECTION Erection of RCC/ PCC pole of following length in brick ballast and ramming the foundation, finishing with 150mm thick				
26	POLE ERECTION Erection of RCC/ PCC pole of following length in brick ballast and ramming the foundation, finishing with 150mm thick cement concrete (1:3:6) layer on top with including excavation				
26	POLE ERECTION Erection of RCC/ PCC pole of following length in brick ballast and ramming the foundation, finishing with 150mm thick				
26	POLE ERECTION Erection of RCC/ PCC pole of following length in brick ballast and ramming the foundation, finishing with 150mm thick cement concrete (1:3:6) layer on top with including excavation	26	Each		
26	POLE ERECTION Erection of RCC/ PCC pole of following length in brick ballast and ramming the foundation, finishing with 150mm thick cement concrete (1:3:6) layer on top with including excavation and refilling etc as required. Above 4.5 metre and upto 6.5 metre		Each		
26	POLE ERECTION           Erection of RCC/ PCC pole of following length in brick ballast and ramming the foundation, finishing with 150mm thick cement concrete (1:3:6) layer on top with including excavation and refilling etc as required.           Above 4.5 metre and upto 6.5 metre           Above 6.5 metre and upto 8.0 metre	26 19			
26	POLE ERECTION         Erection of RCC/ PCC pole of following length in brick ballast and ramming the foundation, finishing with 150mm thick cement concrete (1:3:6) layer on top with including excavation and refilling etc as required.         Above 4.5 metre and upto 6.5 metre         Above 6.5 metre and upto 8.0 metre         Supplying and embedding following dia G.I. pipe (medium		Each		
26	POLE ERECTION         Erection of RCC/ PCC pole of following length in brick ballast and ramming the foundation, finishing with 150mm thick cement concrete (1:3:6) layer on top with including excavation and refilling etc as required.         Above 4.5 metre and upto 6.5 metre         Above 6.5 metre and upto 8.0 metre         Supplying and embedding following dia G.I. pipe (medium class) in pole collar/ foundation (during casting) for cable		Each		
26	POLE ERECTION           Erection of RCC/ PCC pole of following length in brick ballast and ramming the foundation, finishing with 150mm thick cement concrete (1:3:6) layer on top with including excavation and refilling etc as required.           Above 4.5 metre and upto 6.5 metre           Above 6.5 metre and upto 8.0 metre           Supplying and embedding following dia G.I. pipe (medium class) in pole collar/ foundation (during casting) for cable entry including bending the pipe to the required shape		Each		
26	POLE ERECTION         Erection of RCC/ PCC pole of following length in brick ballast and ramming the foundation, finishing with 150mm thick cement concrete (1:3:6) layer on top with including excavation and refilling etc as required.         Above 4.5 metre and upto 6.5 metre         Above 6.5 metre and upto 8.0 metre         Supplying and embedding following dia G.I. pipe (medium class) in pole collar/ foundation (during casting) for cable		Each		
26	POLE ERECTION           Erection of RCC/ PCC pole of following length in brick ballast and ramming the foundation, finishing with 150mm thick cement concrete (1:3:6) layer on top with including excavation and refilling etc as required.           Above 4.5 metre and upto 6.5 metre           Above 6.5 metre and upto 8.0 metre           Supplying and embedding following dia G.I. pipe (medium class) in pole collar/ foundation (during casting) for cable entry including bending the pipe to the required shape complete as required.	19	Each		
26	POLE ERECTION           Erection of RCC/ PCC pole of following length in brick ballast and ramming the foundation, finishing with 150mm thick cement concrete (1:3:6) layer on top with including excavation and refilling etc as required.           Above 4.5 metre and upto 6.5 metre           Above 6.5 metre and upto 8.0 metre           Supplying and embedding following dia G.I. pipe (medium class) in pole collar/ foundation (during casting) for cable entry including bending the pipe to the required shape		Each		
26	POLE ERECTION           Erection of RCC/ PCC pole of following length in brick ballast and ramming the foundation, finishing with 150mm thick cement concrete (1:3:6) layer on top with including excavation and refilling etc as required.           Above 4.5 metre and upto 6.5 metre           Above 6.5 metre and upto 8.0 metre           Supplying and embedding following dia G.I. pipe (medium class) in pole collar/ foundation (during casting) for cable entry including bending the pipe to the required shape complete as required.	19 125	Each Each metre		
26	POLE ERECTION         Erection of RCC/ PCC pole of following length in brick ballast and ramming the foundation, finishing with 150mm thick cement concrete (1:3:6) layer on top with including excavation and refilling etc as required.         Above 4.5 metre and upto 6.5 metre         Above 6.5 metre and upto 8.0 metre         Supplying and embedding following dia G.I. pipe (medium class) in pole collar/ foundation (during casting) for cable entry including bending the pipe to the required shape complete as required.         32 mm dia         40 mm dia	19	Each Each		
26	POLE ERECTION         Erection of RCC/ PCC pole of following length in brick ballast and ramming the foundation, finishing with 150mm thick cement concrete (1:3:6) layer on top with including excavation and refilling etc as required.         Above 4.5 metre and upto 6.5 metre         Above 6.5 metre and upto 8.0 metre         Supplying and embedding following dia G.I. pipe (medium class) in pole collar/ foundation (during casting) for cable entry including bending the pipe to the required shape complete as required.         32 mm dia	19 125	Each Each metre		
26	POLE ERECTION         Erection of RCC/ PCC pole of following length in brick ballast and ramming the foundation, finishing with 150mm thick cement concrete (1:3:6) layer on top with including excavation and refilling etc as required.         Above 4.5 metre and upto 6.5 metre         Above 6.5 metre and upto 8.0 metre         Supplying and embedding following dia G.I. pipe (medium class) in pole collar/ foundation (during casting) for cable entry including bending the pipe to the required shape complete as required.         32 mm dia         40 mm dia	19 125	Each Each metre		
	POLE ERECTION         Erection of RCC/ PCC pole of following length in brick ballast and ramming the foundation, finishing with 150mm thick cement concrete (1:3:6) layer on top with including excavation and refilling etc as required.         Above 4.5 metre and upto 6.5 metre         Above 6.5 metre and upto 8.0 metre         Supplying and embedding following dia G.I. pipe (medium class) in pole collar/ foundation (during casting) for cable entry including bending the pipe to the required shape complete as required.         32 mm dia         40 mm dia         Total(DSR)	19 125	Each Each metre		
26	POLE ERECTION         Erection of RCC/ PCC pole of following length in brick ballast and ramming the foundation, finishing with 150mm thick cement concrete (1:3:6) layer on top with including excavation and refilling etc as required.         Above 4.5 metre and upto 6.5 metre         Above 6.5 metre and upto 8.0 metre         Supplying and embedding following dia G.I. pipe (medium class) in pole collar/ foundation (during casting) for cable entry including bending the pipe to the required shape complete as required.         32 mm dia         40 mm dia         Total(DSR)         EXTERNAL LIGHTING SYSTEM	19 125	Each Each metre		
	POLE ERECTION         Erection of RCC/ PCC pole of following length in brick ballast and ramming the foundation, finishing with 150mm thick cement concrete (1:3:6) layer on top with including excavation and refilling etc as required.         Above 4.5 metre and upto 6.5 metre         Above 6.5 metre and upto 8.0 metre         Supplying and embedding following dia G.I. pipe (medium class) in pole collar/ foundation (during casting) for cable entry including bending the pipe to the required shape complete as required.         32 mm dia         40 mm dia         Total(DSR)         EXTERNAL LIGHTING SYSTEM         SUPPLY OF EXTERNAL LIGHTING SYSTEM	19 125	Each Each metre		
	POLE ERECTION         Erection of RCC/ PCC pole of following length in brick ballast and ramming the foundation, finishing with 150mm thick cement concrete (1:3:6) layer on top with including excavation and refilling etc as required.         Above 4.5 metre and upto 6.5 metre         Above 6.5 metre and upto 8.0 metre         Supplying and embedding following dia G.I. pipe (medium class) in pole collar/ foundation (during casting) for cable entry including bending the pipe to the required shape complete as required.         32 mm dia         40 mm dia         Total(DSR)         EXTERNAL LIGHTING SYSTEM         Supply of pole mounted post top lantern for external lighting	19 125	Each Each metre		
	POLE ERECTION         Erection of RCC/ PCC pole of following length in brick ballast and ramming the foundation, finishing with 150mm thick cement concrete (1:3:6) layer on top with including excavation and refilling etc as required.         Above 4.5 metre and upto 6.5 metre         Above 6.5 metre and upto 8.0 metre         Supplying and embedding following dia G.I. pipe (medium class) in pole collar/ foundation (during casting) for cable entry including bending the pipe to the required shape complete as required.         32 mm dia         40 mm dia         Total(DSR)         EXTERNAL LIGHTING SYSTEM         SUPPLY OF EXTERNAL LIGHTING SYSTEM	19 125	Each Each metre		
	POLE ERECTION         Erection of RCC/ PCC pole of following length in brick ballast and ramming the foundation, finishing with 150mm thick cement concrete (1:3:6) layer on top with including excavation and refilling etc as required.         Above 4.5 metre and upto 6.5 metre         Above 6.5 metre and upto 8.0 metre         Supplying and embedding following dia G.I. pipe (medium class) in pole collar/ foundation (during casting) for cable entry including bending the pipe to the required shape complete as required.         32 mm dia         40 mm dia         Total(DSR)         EXTERNAL LIGHTING SYSTEM         Supply of pole mounted post top lantern for external lighting	19 125	Each Each metre		
	POLE ERECTION         Erection of RCC/ PCC pole of following length in brick ballast and ramming the foundation, finishing with 150mm thick cement concrete (1:3:6) layer on top with including excavation and refilling etc as required.         Above 4.5 metre and upto 6.5 metre         Above 6.5 metre and upto 8.0 metre         Supplying and embedding following dia G.I. pipe (medium class) in pole collar/ foundation (during casting) for cable entry including bending the pipe to the required shape complete as required.         32 mm dia         40 mm dia         Total(DSR)         EXTERNAL LIGHTING SYSTEM         Supply of pole mounted post top lantern for external lighting complete with required nos. lamps and control gears etc.	19 125	Each Each metre		
	POLE ERECTION         Erection of RCC/ PCC pole of following length in brick ballast and ramming the foundation, finishing with 150mm thick cement concrete (1:3:6) layer on top with including excavation and refilling etc as required.         Above 4.5 metre and upto 6.5 metre         Above 6.5 metre and upto 8.0 metre         Supplying and embedding following dia G.I. pipe (medium class) in pole collar/ foundation (during casting) for cable entry including bending the pipe to the required shape complete as required.         32 mm dia         40 mm dia         Total(DSR)         EXTERNAL LIGHTING SYSTEM         Supply of pole mounted post top lantern for external lighting complete as required nos. lamps and control gears etc. complete as required as per the standard catalogue item.	19 125	Each Each metre metre		
	POLE ERECTION         Erection of RCC/ PCC pole of following length in brick ballast and ramming the foundation, finishing with 150mm thick cement concrete (1:3:6) layer on top with including excavation and refilling etc as required.         Above 4.5 metre and upto 6.5 metre         Above 6.5 metre and upto 8.0 metre         Supplying and embedding following dia G.I. pipe (medium class) in pole collar/ foundation (during casting) for cable entry including bending the pipe to the required shape complete as required.         32 mm dia         40 mm dia         Total(DSR)         EXTERNAL LIGHTING SYSTEM         Supply of pole mounted post top lantern for external lighting complete as required as per the standard catalogue item.         70 watt HPSV (Philips HPS 360 / 70 (E) watt HPF)	19 125 107	Each Each metre		
	POLE ERECTION         Erection of RCC/ PCC pole of following length in brick ballast and ramming the foundation, finishing with 150mm thick cement concrete (1:3:6) layer on top with including excavation and refilling etc as required.         Above 4.5 metre and upto 6.5 metre         Above 6.5 metre and upto 8.0 metre         Supplying and embedding following dia G.I. pipe (medium class) in pole collar/ foundation (during casting) for cable entry including bending the pipe to the required shape complete as required.         32 mm dia         40 mm dia         Total(DSR)         EXTERNAL LIGHTING SYSTEM         Supply of pole mounted post top lantern for external lighting complete as required nos. lamps and control gears etc. complete as required as per the standard catalogue item.         70 watt HPSV (Philips HPS 360 / 70 (E) watt HPF) Sonora/Bajaj/Surya	19 125	Each Each metre metre		
	POLE ERECTION         Erection of RCC/ PCC pole of following length in brick ballast and ramming the foundation, finishing with 150mm thick cement concrete (1:3:6) layer on top with including excavation and refilling etc as required.         Above 4.5 metre and upto 6.5 metre         Above 6.5 metre and upto 8.0 metre         Supplying and embedding following dia G.I. pipe (medium class) in pole collar/ foundation (during casting) for cable entry including bending the pipe to the required shape complete as required.         32 mm dia         40 mm dia         Total(DSR)         EXTERNAL LIGHTING SYSTEM         Supply of pole mounted post top lantern for external lighting complete as required as per the standard catalogue item.         70 watt HPSV (Philips HPS 360 / 70 (E) watt HPF)	19 125 107	Each Each metre metre		
	POLE ERECTION         Erection of RCC/ PCC pole of following length in brick ballast and ramming the foundation, finishing with 150mm thick cement concrete (1:3:6) layer on top with including excavation and refilling etc as required.         Above 4.5 metre and upto 6.5 metre         Above 6.5 metre and upto 8.0 metre         Supplying and embedding following dia G.I. pipe (medium class) in pole collar/ foundation (during casting) for cable entry including bending the pipe to the required shape complete as required.         32 mm dia         40 mm dia         Total(DSR)         EXTERNAL LIGHTING SYSTEM         Supply of pole mounted post top lantern for external lighting complete with required nos. lamps and control gears etc. complete as required as per the standard catalogue item.         70 watt HPSV (Philips HPS 360 / 70 (E) watt HPF) Sonora/Bajaj/Surya         ERECTION OF EXTERNAL LIGHTING FIXTURES	19 125 107	Each Each metre metre		
	POLE ERECTION         Erection of RCC/ PCC pole of following length in brick ballast and ramming the foundation, finishing with 150mm thick cement concrete (1:3:6) layer on top with including excavation and refilling etc as required.         Above 4.5 metre and upto 6.5 metre         Above 6.5 metre and upto 8.0 metre         Supplying and embedding following dia G.I. pipe (medium class) in pole collar/ foundation (during casting) for cable entry including bending the pipe to the required shape complete as required.         32 mm dia         40 mm dia         Total(DSR)         EXTERNAL LIGHTING SYSTEM         Supply of pole mounted post top lantern for external lighting complete as required as per the standard catalogue item.         70 watt HPSV (Philips HPS 360 / 70 (E) watt HPF) Sonora/Bajaj/Surya         ERECTION OF EXTERNAL LIGHTING FIXTURES         Installation, testing and commissioning of CFL / HPSV / MH /	19 125 107	Each Each metre metre		
	POLE ERECTION         Erection of RCC/ PCC pole of following length in brick ballast and ramming the foundation, finishing with 150mm thick cement concrete (1:3:6) layer on top with including excavation and refilling etc as required.         Above 4.5 metre and upto 6.5 metre         Above 6.5 metre and upto 8.0 metre         Supplying and embedding following dia G.I. pipe (medium class) in pole collar/ foundation (during casting) for cable entry including bending the pipe to the required shape complete as required.         32 mm dia         40 mm dia         Total(DSR)         EXTERNAL LIGHTING SYSTEM         Supply of pole mounted post top lantern for external lighting complete as required nos. lamps and control gears etc. complete as required as per the standard catalogue item.         70 watt HPSV (Philips HPS 360 / 70 (E) watt HPF) Sonora/Bajaj/Surya         ERECTION OF EXTERNAL LIGHTING FIXTURES         Installation, testing and commissioning of CFL / HPSV / MH / CDMT type post top lantern with required lamps complete	19 125 107	Each Each metre metre		
	POLE ERECTION         Erection of RCC/ PCC pole of following length in brick ballast and ramming the foundation, finishing with 150mm thick cement concrete (1:3:6) layer on top with including excavation and refilling etc as required.         Above 4.5 metre and upto 6.5 metre         Above 6.5 metre and upto 8.0 metre         Supplying and embedding following dia G.I. pipe (medium class) in pole collar/ foundation (during casting) for cable entry including bending the pipe to the required shape complete as required.         32 mm dia         40 mm dia         Total(DSR)         EXTERNAL LIGHTING SYSTEM         Supply of pole mounted post top lantern for external lighting complete with required nos. lamps and control gears etc. complete as required as per the standard catalogue item.         70 watt HPSV (Philips HPS 360 / 70 (E) watt HPF) Sonora/Bajaj/Surya         ERECTION OF EXTERNAL LIGHTING FIXTURES         Installation, testing and commissioning of CFL / HPSV / MH / CDMT type post top lantern with required lamps complete with, control gears, ballast, capacitor etc. including	19 125 107	Each Each metre metre		
	POLE ERECTION         Erection of RCC/ PCC pole of following length in brick ballast and ramming the foundation, finishing with 150mm thick cement concrete (1:3:6) layer on top with including excavation and refilling etc as required.         Above 4.5 metre and upto 6.5 metre         Above 6.5 metre and upto 8.0 metre         Supplying and embedding following dia G.I. pipe (medium class) in pole collar/ foundation (during casting) for cable entry including bending the pipe to the required shape complete as required.         32 mm dia         40 mm dia         Total(DSR)         EXTERNAL LIGHTING SYSTEM         Supply of pole mounted post top lantern for external lighting complete with required nos. lamps and control gears etc. complete as required as per the standard catalogue item.         70 watt HPSV (Philips HPS 360 / 70 (E) watt HPF) Sonora/Bajaj/Surya         ERECTION OF EXTERNAL LIGHTING FIXTURES         Installation, testing and commissioning of CFL / HPSV / MH / CDMT type post top lantern with required lamps complete with, control gears, ballast, capacitor etc. including connection with 3x1.5 sqmm flexible fire retardant copper	19 125 107	Each Each metre metre		
	POLE ERECTION         Erection of RCC/ PCC pole of following length in brick ballast and ramming the foundation, finishing with 150mm thick cement concrete (1:3:6) layer on top with including excavation and refilling etc as required.         Above 4.5 metre and upto 6.5 metre         Above 6.5 metre and upto 8.0 metre         Supplying and embedding following dia G.I. pipe (medium class) in pole collar/ foundation (during casting) for cable entry including bending the pipe to the required shape complete as required.         32 mm dia         40 mm dia         Total(DSR)         EXTERNAL LIGHTING SYSTEM         Supply of pole mounted post top lantern for external lighting complete with required nos. lamps and control gears etc. complete as required as per the standard catalogue item.         70 watt HPSV (Philips HPS 360 / 70 (E) watt HPF) Sonora/Bajaj/Surya         ERECTION OF EXTERNAL LIGHTING FIXTURES         Installation, testing and commissioning of CFL / HPSV / MH / CDMT type post top lantern with required lamps complete with, control gears, ballast, capacitor etc. including	19 125 107	Each Each metre metre		
	POLE ERECTION         Erection of RCC/ PCC pole of following length in brick ballast and ramming the foundation, finishing with 150mm thick cement concrete (1:3:6) layer on top with including excavation and refilling etc as required.         Above 4.5 metre and upto 6.5 metre         Above 6.5 metre and upto 8.0 metre         Supplying and embedding following dia G.I. pipe (medium class) in pole collar/ foundation (during casting) for cable entry including bending the pipe to the required shape complete as required.         32 mm dia         40 mm dia         Total(DSR)         EXTERNAL LIGHTING SYSTEM         Supply of pole mounted post top lantern for external lighting complete with required nos. lamps and control gears etc. complete as required as per the standard catalogue item.         70 watt HPSV (Philips HPS 360 / 70 (E) watt HPF) Sonora/Bajaj/Surya         ERECTION OF EXTERNAL LIGHTING FIXTURES         Installation, testing and commissioning of CFL / HPSV / MH / CDMT type post top lantern with required lamps complete with, control gears, ballast, capacitor etc. including connection with 3x1.5 sqmm flexible fire retardant copper	19 125 107 2	Each Each metre metre		
27	POLE ERECTION         Erection of RCC/ PCC pole of following length in brick ballast and ramming the foundation, finishing with 150mm thick cement concrete (1:3:6) layer on top with including excavation and refilling etc as required.         Above 4.5 metre and upto 6.5 metre         Above 6.5 metre and upto 8.0 metre         Supplying and embedding following dia G.I. pipe (medium class) in pole collar/ foundation (during casting) for cable entry including bending the pipe to the required shape complete as required.         32 mm dia         40 mm dia         Total(DSR)         EXTERNAL LIGHTING SYSTEM         Supply of pole mounted post top lantern for external lighting complete with required nos. lamps and control gears etc. complete as required as per the standard catalogue item.         70 watt HPSV (Philips HPS 360 / 70 (E) watt HPF) Sonora/Bajaj/Surya         ERECTION OF EXTERNAL LIGHTING FIXTURES         Installation, testing and commissioning of CFL / HPSV / MH / CDMT type post top lantern with required lamps complete with, control gears, ballast, capacitor etc. including connection with 3x1.5 sqmm flexible fire retardant copper connecting wire of required length complete as required.	19 125 107 2	Each Each metre metre		
	POLE ERECTION         Erection of RCC/ PCC pole of following length in brick ballast and ramming the foundation, finishing with 150mm thick cement concrete (1:3:6) layer on top with including excavation and refilling etc as required.         Above 4.5 metre and upto 6.5 metre         Above 6.5 metre and upto 8.0 metre         Supplying and embedding following dia G.I. pipe (medium class) in pole collar/ foundation (during casting) for cable entry including bending the pipe to the required shape complete as required.         32 mm dia         40 mm dia         Total(DSR)         EXTERNAL LIGHTING SYSTEM         Supply of pole mounted post top lantern for external lighting complete as required nos. lamps and control gears etc. complete as required as per the standard catalogue item.         70 watt HPSV (Philips HPS 360 / 70 (E) watt HPF) Sonora/Bajaj/Surya         ERECTION OF EXTERNAL LIGHTING FIXTURES         Installation, testing and commissioning of CFL / HPSV / MH / CDMT type post top lantern with required lamps complete with, control gears, ballast, capacitor etc. including connection with 3x1.5 sqmm flexible fire retardant copper connecting wire of required length complete as required.         LED & SOLAR LIGHTING	19 125 107 2	Each Each metre metre		
27	POLE ERECTION         Erection of RCC/ PCC pole of following length in brick ballast and ramming the foundation, finishing with 150mm thick cement concrete (1:3:6) layer on top with including excavation and refilling etc as required.         Above 4.5 metre and upto 6.5 metre         Above 6.5 metre and upto 8.0 metre         Supplying and embedding following dia G.I. pipe (medium class) in pole collar/ foundation (during casting) for cable entry including bending the pipe to the required shape complete as required.         32 mm dia         40 mm dia         Total(DSR)         EXTERNAL LIGHTING SYSTEM         Supply of pole mounted post top lantern for external lighting complete with required nos. lamps and control gears etc. complete as required as per the standard catalogue item.         70 watt HPSV (Philips HPS 360 / 70 (E) watt HPF) Sonora/Bajaj/Surya         ERECTION OF EXTERNAL LIGHTING FIXTURES         Installation, testing and commissioning of CFL / HPSV / MH / CDMT type post top lantern with required lamps complete with, control gears, ballast, capacitor etc. including connection with 3x1.5 sqmm flexible fire retardant copper connecting wire of required length complete as required.	19 125 107 2	Each Each metre metre		

	Supply, installation, testing and commissiong of Street light			
	luminaire having IP66 level of ingress protection for both LED	ł		
	compartment and control gear compartment, LEDSafe© optic	1		
	compartment with 19W LED at 530mA, equipped with the	1		
	Lensoflex photometric system with PMMA lenses, body	1		
	made of an extruded aluminium, a toughened glass protector,	1		
	end covers made of injection moulded polycarbonate, safety	1		
	plug and socket system, a high pressure die cast aluminium	1		
	painted mounting spigot suitable for horizontal mounting,	1		
	having a surge protection of 10 kV of Schreder make Brika-	1		
	19W LED or equivalent.	ł		
		17	Nos	
	Supply, installation, testing and commissiong of Street light			
	luminaire having IP66 level of ingress protection for both LED	ł		
	compartment and control gear compartment, LEDSafe© optic	ł		
	compartment with 24 LEDs and a total wattage of 78W at	1		
	530mA, equipped with the Lensoflex photometric system with	ł		
	PMMA lenses, body made of an extruded aluminium, a	1		
	toughened glass protector, end covers made of injection	1		
	moulded polycarbonate, safety plug and socket system, a	ł		
	high pressure die cast aluminium painted mounting spigot	1		
	suitable for horizontal mounting, having a surge protection of	1		
	10 kV of Schreder make Brika-24 LED or equivalent.	l		
		i _		
		5	Nos	
	Supply, installation, testing and commissiong of Street light	1		
	luminaire having IP66 level of ingress protection for both LED	l		
	compartment and control gear compartment, LEDSafe© optic	l		
	compartment with 24 LEDs and a total wattage of 78W at	l		
	530mA, equipped with the Lensoflex photometric system with	1		
	PMMA lenses, body made of an extruded aluminium, a	1		
	toughened glass protector, end covers made of injection	1		
	moulded polycarbonate, safety plug and socket system, a	1		
	high pressure die cast aluminium painted mounting spigot	1		
	suitable for horizontal mounting, having a surge protection of	1		
	10 kV, with independent standalone solar street lighting	1		
	system, having dust to dawn operation (10hrs duty cycle)	ł		
	powered by a 180Wp or solar array, a <b>12V 150Ah battery</b>	1		
	backup providing 2 days autonomy (10hrs + 10hrs), high	ł		
	efficiency mono/multi crystalline silicon cells battery - 12-110	ł		
	Ah, capacity 12V, 150 Ah, of Schreder make Solar Brika-24	ł		
	LED or equivalent with 6m Brika Pole with an arrangment to	ł		
	mount the Solar Panel, battery and charge controller	1		
		1		
		1		
		5	Nos	
29	Supply of Poles			
	Supply, installation, testing and commission of 8/4m high	ĺ		
	Galvanised Octagonal (bajaj make) with base plate, made	l		
	out of GI tubular pole, primered and PU painted factory	l		
	finish. The column shall also be provided with flush door at	l		
	the bottom with proper strengthening to the cutout of the door	l		
	opening. A junction/ looping box with Heavy duty 3 phase	l		
	connector shall be suitable into the pole along with 500mm	l		
	single side bracket.	l		
		<u> </u>		
	8m High Galvanised Octagonal Pole	10	Nos	
	4m High Galvanised Octagonal Pole	17	Nos	
		.,	1103	
	Fraction of Polos			
	Erection of Poles			
	Erection of 8/4 meter high street light GI octagonal pole	l		
	including providing and casting in position 'M20' grade	l		
	reinforced cement concrete pole foundation i/c excavation of	l		
	earth in all kind of soils including foundation.	07	Naa	
		27	Nos	
	Supplying, drawing, connecting and testing of following size	l		
	of PVC insulated FRLS copper conductor (as per IS : 694)	l		
	flexible multicore wire in the existing poles and bracket from	l		
	cable termination connector / MCB to the fitting i/c providing suitable connectors	l		
		l		
	2 coro 2 5 cg mm (for 7 5Mtr D-l-c)	l		
	3 core 2.5 sq.mm (for 7.5Mtr Poles)	216	Nos	
	Total			

	Fire Alarm Work				
MR	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	ADDRESSABLE FIRE DETECTION AND ALARM SYSTEM				
	(a) <b>Optical</b> /Photoelectric type <b>smoke detectors</b> of photo-optic sensing				
MR	chamber, 12 / 24 volt D.C., visual alarm indicator (LED's) "Blink - green" in stand by and "Steady - red" in alarm complete in all respects with				
MIX	base as required.( Make:- Siemens, Tyco, Edward)				
	base as required. ( make Siemens, Tyco, Edward)	225	NOS		
	(b) Fixed cum rate of rise temprature type heat detectors, 12 / 24 volt				
	D.C., visual alarm indicators (LED's) "Blink - green" in stand by and				
MR	"Steady - red" in alarm complete in all respects with base as required. (				
	Make:- Siemens, Tyco, Edward)	150	NOS		
	Providing, fixing, testing and commissioning of resettable type manual				
	call points break glass type housed in sheet steel / Polymer housing in				
MR	surface/recess including making connections with wires complete in all				
MIX	respects and as per specifications. The manual call point should have an				
	indicator, which should "blink" in stand by condition. (Make : Siemens,				
	Tyco, Edward)	175	NOS		
	Providing, fixing, testing and commissioning of electronic hooters with				
	LMT (hooters shall also be able to work as public address system				
MR	sounders) housed in sheet steel / Polymer housing suitable for wall /				
	ceiling and surface / recess mounting including making connections with				
	wires complete in all respects and as per specifications. (Make :	170	NOC		
	Siemens, Tyco, Edward)	173	NOS		
	Providing, fixing, testing and commissioning of fire alarm main control				
	and indicating panel, Addressable microprocessor based to monitor				
	all local/zonal control panels on each floor or directly detectors as per the				
	case, pulser, timer for dual stage alarm facility complete with indicators,				
	floor selector switches, stand by SMF battery, battery charger, battery				
	box, connections to building automation system / Fire fighting pump				
	panel etc. including Public Address System complete in all respect and				
	as per specifications and requirements. The panel shall have facility of				
	automatic dialling to 5 telephone numbers in case of alarm. The main				
	control panel should give a distinct visual signal of the isolation of loop				
	from the local indication panel. If all the loops at the local panel are				
	isolated or if the fuse of the LCP gets blown, it should result in an open				
	circuit fault indication at the Main Panel. Each loop should have provision				
	of activation of hooter. (MAKE : Siemens, Tyoc, Edward)				
	6 loop main control panel	2	SET		
	Providing, installing, testing and commissioning of repeater panel				
	suitable for common fire / fault indication of 5 nos main Fire Alarm				
MR	panels with sounder, stand by SMF battery, battery charger, battery box,	5	SET		
	LCD alpha numeric character display with accept / reset buttons for	-			
	alarm. The panel shall be connected to the main fire alarm panel.				
	TOTAL SUB HEAD I				

	CABLES AND ACCESSORIES				
	Supply and fixing of ISI marked (IS:3419 & 2509) 2 mm thick <b>PVC</b> conduit in concealed / exposed system in wall, ceiling or on floor including cutting of brick work, laying of conduit and fixing it with M.S. hooks and then plastering with cement, sand motar finished to the level, on floor the conduit shall be covered in PCC 1:2:4 for protection, including cost of threading of conduit and providing necessary sockets, bends, tees etc as directed at site by the engineer-in-charge with supply of all material labour and T & P required for proper completion of work. conduit being laid either in concealed system in ceiling slab or wall or on surface or under the frame of false ceiling including flexible conduits or through wooden partition including clamping arrangements as required (Make : B.E.C. / AKG / Finolex / Atul)				
MR	25 mm dia. conduit	2000	М		
	Supplying, receiving, storing, handling, fixing, wiring for fire alarm system wiring using ISI marked (IS 694) 1100 Volts grade, PVC insulated, flexible, flame retardant low smoke (FRLS) <b>copper conductor wire</b> , drawn in existing solid / flexible conduits / casing caping including connections to the detectors, manual call points, hooters, response indicators, accessories, fire alarm control panel etc. including termination with bottle type copper lugs, connectors etc as required to complete the system. (Make : FINOLEX / RR / Polycab / Skytone)				
	2 x 1.5 sq mm	4450	М		
	Supply and laying of ISI marked Copper conductor PVC insulated FRLS <b>control cable</b> as per IS 1554 or XPLE insulated as per IS 7098 PVC sheathed 1100 volts grade. On surface the cable run shall be fixed by GI clamps etc. of suitable size or on existing cable tray complete in all respect .The armouring of the cable shall be properly connected with the earth conductor including fixing of palm or pin type copper tin plated cable socket (lug) to the cable leads, connectors, terminal blocks, connectors, insulating with tape and making connections complete in all respect including supply of clamps, lugs, tape etc complete upto the satisfaction of Engineer-in-charge.				
	(Make : Universal (Satna) / CCI / Nicco / Finolex / Polycab / Skytone RR)				
MR	8 x 1.5 sq mm armoured	150	М		

	Swim	ming I	Pool		
S.No.	Description	Unit	Qty	Rate	Amount
1	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift upto 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m.	Cum	845.94		
	Disposal Of Excavated Earth By truck upto 10 Km.	Cum	845.94		
2	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level : 1:4:8 (1 cement : 4 fine sand : 8 graded stone aggregate 40 mm nominal size)	Cum	50.74		
3	Reinforced cement concrete work in walls (any thickness), including attached pilasters, buttresses, plinth and string courses, fillets, columns, pillars, piers, abutments, posts and struts etc. up to floor five level, excluding cost of centering, shuttering, finishing and reinforcement : 1:1:2 (1 cement : 1 coarse sand : 2 graded stone aggregate 20 mm nominal size)	Cum	157.53		
4	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in foundation and plinth in: Cement mortar 1:6 (1 cement : 6 coarse sand)	Cum	6.72		
5	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in Superstructure in: Cement mortar 1:6 (1 cement : 6 coarse sand)	Cum	7.63		
6	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete above plinth level.	Kg	28024.50		
7	Centering and shuttering including strutting, propping etc. and emoval of form work for :				
8	Retaining walls, return walls, walls (any thickness) including attached pilasters, buttresses, plinth and string courses fillets, kerbs and steps etc.	Sqm	260.52		

	<b>_</b>			
9	Providing and laying water proofing treatment to vertical and horizontal surfaces of depressed portions of W.C., kitchen and the like consisting of: (i) Ist course of applying cement slurry @ 4.4 kg/sqm mixed with water proofing compound conforming to IS 2645 in recommended proportions including rounding off junction of vertical and horizontal surface. (ii) IInd course of 20 mm cement plaster 1:3 (1 cement : 3 coarse sand) mixed with water proofing compound in recommended proportion including rounding off junction of vertical and horizontal surface. (iii) IIIrd course of applying blown or residual bitumen applied hot at 1.7 kg. per sqm of area. (iv) IVth course of 400 micron thick PVC sheet. (Overlaps at joints of PVC sheet should be 100 mm wide and pasted to each other with bitumen @ 1.7 kg/sqm).	Sqm	491.00	
10	Providing and laying Ceramic glazed floor tiles of size 300x300 mm (thickness to be specified by the manufacturer), of 1st quality conforming to IS : 15622, of approved make, in all colours, shades, except White, Ivory, Grey, Fume Red Brown, 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 pigments etc., complete.	Sqm	491.04	
11	Providing and fixing Ist quality ceramic glazed wall 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	117.00	

12	Providing and fixing T-iron frames for doors, windows and ventilators of mild steel Tee-sections, joints mitred and welded, including fixing of necessary butt hinges and screws and applying a priming coat of approved steel primer. Fixing with 15x3 mm lugs 10 cm long embedded in cement concrete block 15x10x10 cm of C.C. 1:3:6 (1 Cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)	Kg	60.00	
13	Filtration Plant electrical Plumbing work,S leader under ground lighting.			

	LIFT WORK							
S.NO	DESCRIPTION	QTY	UNIT RATE	TOTAL AMOUNT				
	8 Passenger,11 Floor,11 Opening SS							
	Finish with SS mirror finish center panel							
	and all corners in SS finish, center							
	opening Doors, with SH 300 OP and SH							
	250 COP controls Lift with Machine							
1	Room on top, (09 Stops) SS Finished	10						
	Cabins, Automatice door with ARD Panel							
	etc. complete in 154 Beam sensor,Fire							
	man Switch and Emergency Alarm SH							
	110 Control Panel and ARD complete in							
	all respects, Make-KONE							