

MAHARASHTRA FILM, STAGE & CULTURAL DEVELOPMENT
CORPORATION LTD.
(MFSCDCL)



TENDER
DOCUMENT

Name of work

Repair and Upgradation of Studio 1, 2, 5, 7, 16 & Hospital Building at
Dadasaheb Phalke Chitranagari, Goregaon (East),
Mumbai – 400 065 (Civil and Electrical, MEP, firefighting and HVAC
Works)

Tender Cost:

Civil Work Portion	: Rs. 36,80,71,395/-
Electrical, MEP, Fire Fighting and HVAC Work Portion	: Rs. 9,28,81,186 /-
Total:	Rs. 46,09,52,581/-

Earnest Money Deposit (EMD):

Civil Work Portion	: Rs. 18,40,357/-
Electrical, MEP, Fire Fighting Work Portion	: Rs. 4,64,406/-
Total:	Rs. 23,04,763/-

Engineer In Charge: Deputy Engineer Civil

**Tender Repair and Upgradation BOQ as per the Latest
Government Norms (PWD/MCGM Specification)**

Name of Work: Repair and Upgradation of Studio 1, 2, 5, 7, 16 & Hospital Building at Dadasaheb Phalke Chitranagari, Goregaon (East), Mumbai – 400 065
(Civil and Electrical, MEP, firefighting and HVAC Works)

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***NA: Not Applicable Here & Not to be referred.**

CONTRACTOR

NO. OF CORRECTION

DEPUTY ENGINEER(CIVIL)

DADASAHEB PHALKE CHITRANAGARI (MFSCDCL)

1.0 BRIEF TENDER NOTICE (BTN)

Online Tenders (e-tender) in B-1 form for the following work are invited by the Deputy Engineer (Civil), Dadasaheb Phalke Chitranagari, Goregaon E-mail decivilmfscdc@gmail.com on GoM Electronic TenderManagement System. <http://mahatenders.gov.in>

SYSTEM TENDER NO.

Online Tender is invited for the following works upto at 17.30 hours.

The details can be viewed and downloaded online directly from the GoM e-Tendering Portal <http://mahatenders.gov.in> on sub Portal of Dadasaheb Phalke Chitranagari (MFSCDCL) <http://mahatenders.gov.in> form At hours (IST) onwards.

Sr. No.	Name of work	Estimated cost in (Rs)	Time limit for completion (Months)	Earnest Money in (Rs)	Cost of Blank tender form (Rs)
1	2	3	4	5	6
1	Repair and Upgradation of 1, 2, 5, 7, 16 & Hospital Building at Dadasaheb Phalke Chitranagari, Goregaon East	Rs. 46,09,52,581/-	18 (Eighteen) Calendar Months including Monsoon	Rs. 23,04,763/-	Rs.5900/- (including GST to be paid online)

For more details on the tender and bidding process you may please visit the above-Mentioned portal.

NOTE:

- 1.Details of tender documents will be available on website [WWW.filmcitymumbai.org.http://mahatenders.gov.in](http://mahatenders.gov.in)
- 2.Contractors aremandated togetenrolled on <http://mahatenders.gov.in>
- 3.For details contact – 24 X 7 Help Desk Toll Free No.1800 3070 2232, Mobile No. +919004712689 +917878007972/73, Email eproc.maharashtra@gmail.com, cpppsupot@nic.in
4. The right is reserved to reject any or all tenders for any reason thereof.
5. We are not responsible for any problem coup up during onlineE-tender process.
6. The above tender notice is also available on the website of MFSCDCL.

Deputy Engineer (Civil)

**DADASAHEB PHALKE CHITRANAGARI
(MFSCDCL)**

2.0 DETAILED TENDER NOTICE (DTN)

1. TENDER SCHEDULE

Online percentage rate tenders in 'B-1' Form are invited by the **Deputy Engineer (Civil), Dadasaheb Phalke Chitranagari, Goregaon East Mumbai** for the following work from **Contractors who meet the eligibly Fmini** mentioned in Tender. The Name of Work, Estimated Cost, Earnest Money, Security Deposit, Time limit for completion etc. are as under. The bidder is advised to carefully examine all instructions in this NIT including addendum/ amendments to NIT, conditions of contract, contract data, forms, terms, technical specifications, bill of quantities etc. in the bid Document.

The Name of Work, Estimated Cost, Earnest Money, Security Deposit, Time limit for completion etc. are as under

Name of work	Repair and Upgradation of Studio 1, 2, 5, 7, 16 & Hospital Building at Dadasaheb Phalke Chitranagari, Goregaon E
Estimated Cost Put to Tender	Rs. 46,09,52,581/-
Earnest Money Deposit (EMD)	Rs. 23,04,763/- (to be paid online as prescribed)
Security Deposit	Rs. 46,09,523.00/-
Cost of Tender form	Rs.5900.00/- (Including GST to be paid online as prescribed)
Period for Downloading Tended forms	Refer Online schedule on portal http://mahatenders.gov.in or subportal of Dadasaheb Phalke Chitranagari (MFSCDCL) (29.02.2024 at 10:00 AM to 20.03.2024 at 05:30 PM)
Last date and time for submitting pre-bid queries online	Refer Online schedule on portal http://mahatenders.gov.in or subportal of Dadasaheb Phalke Chitranagari (MFSCDCL) (29.03.2024 to 07.03.2024 at 03:00 PM)
Time for pre bid meeting	07.03.2024 at 03:00 PM (Online Mode only)
Place, time and date of opening Technical Bid.	On date 21.03.2024 up to 05:30 PM in the office of _____ the MFSCDCL Goregaon East Mumbai

Note - Above Schedule is subjective & to be verified by the Tenderer himself on web site. Tender Schedule Flashed on Website (System Generate Schedule) is final & binding to all Tenderers.

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(2) Guidelines to Bidders on the operations of Electronic Tendering Management System [ETMS] of Dadasaheb Phalke Chitranagari (MFSCDCL), <https://mahatenders.gov.in>

1. Tender Forms can be downloaded from the e-Tendering portal of Dadasaheb Phalke Chitranagari (MFSCDCL), Government of Maharashtra i.e. <https://mahatenders.gov.in> Document Tender Fee and EMD to be paid Via SBI MOPS Online Payment Gateway Mode Only. And upload successful payment receipt in ENVELOPE NO.1 TECHNICAL BID Documents.
2. The tender submitted by the tenderer shall be based on the clarification, additional facility offered (if any) by the Department, and this tender shall be unconditional. Conditional tenders will be summarily REJECTED.
3. All tenderers are cautioned that tenders containing any deviation from the contractual terms and conditions, specifications or other requirements and conditional tenders will be treated as non-responsive. The contractor should clearly mention in forwarding letter that his offer (in Envelope No.1 & 2) does not contain any condition, deviations from terms and conditions stipulated in the tender.
4. Tenderers should have valid Class II / III Digital Signature Certificate (DSC) obtained from any Certifying Authorities.
5. For any assistance on the use of Electronic Tendering System, the Users may call the below.
6. Toll Free Ph. No. 1800 3070 2232 E-Mail: eproc.support@maharashtra.gov.in, cphp-support@nic.in
7. Special Instructions to the Contractors / Bidders for the e-submission of the bids online through this tender site: <https://mahatenders.gov.in> Bidder must register themselves on <https://mahatenders.gov.in> portal by clicking "Online Bidder Enrollment" and then map Digital Signature certificate.
8. Bidder then login to the site giving User id / Password chosen during registration.
9. The DSC e-token that is registered should be used by the bidder and should not be misused by others.
10. The Bidders can update well in advance, the documents such as certificates, purchase order details etc., under My Documents option and

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these can be selected as per tender requirements and then attached along with bid documents during bid submission.

11. After downloading / getting the tender schedules, the Bidder should go through them carefully and then submit the documents as asked, otherwise, the bid will be rejected.
12. If there are any clarifications, this may be obtained online through the tender site, or through the contact details. Bidder should take into account of the corrigendum published before submitting the bids online.
13. Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender schedule and they should be in PDF/XLS/RAR formats. If there is more than one document, they can be clubbed together.
14. Document Tender Fee and EMD to be paid via SBI MOPS Online Payment Gateway Mode only and upload successful payment receipt in **ENVELOPE NO. 1 TECHNICAL BID Documents**.
15. The bidder reads the terms & conditions and accepts the same to proceed further to submit the bids.
16. The bidder has to submit the tender document online well in advance before the prescribed time to avoid any delay or problem during the submission process.
17. After the bid submission, the acknowledgement number, given by the e-tendering system should be printed by the bidder and kept as a record of evidence for online submission of bid for the particular tender.
18. Document Tender Fee and EMD to be paid via SBI MOPS Online Payment Gateway Mode only. And upload successful payment receipt in Envelope No.1 Technical Bid Documents. and BOQ in.xls format file to Uploaded in ENVELOPE NO.2 FINANCIAL BID Documents.
19. The Tender Inviting Authority (TIA) will not be held responsible for any sort of delay, or the difficulties faced during the submission of bids online by the bidders.
20. The bidder may submit the bid documents by online mode through the site (<https://mahatenders.gov.in>) as indicated in the tender.
21. The tendering system will give a successful bid updating message after uploading all the bid documents submitted & then a bid summary will be

shown with the bid no, date & time of submission of the bid with all other relevant details. The documents submitted by the bidders will be digitally signed using the DSC e-token of the bidder and then submitted. The bid summary has to be printed and kept as an acknowledgement as a token of the submission of the bid. The bid summary will act as a proof of bid submission for a tender floated and will also act as an entry point to participate in the bid opening date.

- 22.** Bidder should log into the site well in advance for bid submission so that he submits the bid in time i.e., on or before the bid submission end time. If there is any delay, due to other issues, bidder only is responsible.
- 23.** The bidder should see that the bid documents submitted should be free from virus and if the documents could not be opened, due to virus, during tender opening, the bid is liable to be rejected.
- 24.** The time settings fixed in the server side & displayed at the top of the tender site, will be valid for all actions of requesting, bid submission, bid opening etc., in the e-tender system. The bidders should follow this time during bid submission.
- 25.** All the data being entered by the bidders would be encrypted using PKI encryption techniques to ensure the secrecy of the data. The data entered will not be viewable by unauthorized persons during bid submission & not be viewable by any one until the time of bid opening. Overall, the submitted tender documents become readable only after the tender opening by the authorized individual.
- 26.** The confidentiality of the bids is maintained since the secured Socket Layer 128-bit encryption technology is used. Data storage encryption of sensitive fields is done.
- 27.** The bidders are requested to submit the bids through online eTendering System to the TIA well before the bid submission end date & time (as per Server System Clock).
- 28.** The bidder should logout of the tendering system using the normal logout option available at the top right-hand corner and not by selecting the (X) option in the browser.

29. The bidder should upload the Technical Bid in .rar format single file to upload in technical cover and then BOQ in .xls format single file to Uploaded in ENVELOPE NO.2 FINANCIAL BID Documents.
30. The User acknowledges and agrees that his/ her information will be managed in accordance with the laws for the time in force.
31. **Payment Gateway Disclaimer the Service** is provided in order to facilitate payment of Tender Fees/Earnest Money / Bid Security Deposit online. The Merchant or the Payment Gateway Service Provider(s) do not make any representation of any kind, express or implied, as to the operation of the Payment Gateway other than what is specified in the Website for this purpose. By accepting/ agreeing to these Terms and Conditions, the User expressly agrees that his/ her use of the aforesaid online payment service is entirely at own risk and responsibility of the User.

3 EXAMINATIONS OF DRAWINGS AND SITE CONDITIONS:

- (3.1) The tenderer shall in his own interest carefully examine the drawings, conditions of contract specifications etc.
- (3.2) He shall also inspect the site and acquaint himself about the climate, physical and all other conditions prevailing at site, the nature, magnitude, special features, practicability of the works, all existing and required means of communications and accesses to site, availability of housing and other facilities, the availability of labor, materials, Power & Water, space for labor's camp, plant, stores and Go down etc.
- (3.3) He shall obtain all necessary information as to the risk, contingencies, and other circumstances, which may affect and influence the tender.

4. PRE – TENDER CONFERENCE: -

(4.1) The Pre- Tender conference will not be held physically. All prospective tenderers, who have downloaded tenders from, can ask for any clarification regarding tender conditions, online only seek additional information by submitting Pre- Tender queries before the date mentioned in the Tender Schedule by “PostQueries” option available on e-tendering system portal.

Queries regarding tender document must be submitted online before the specified deadline i.e 07.03.2024 at 3:00 PM

Reply of these queries will be given by the Department through the same “Post Queries” option.

(4.2) This reply / clarification / Amendment given by the department refer to as **common set of condition / Deviations (CSD)** will form part of Tender. Which will be common and applicable to all tenderers.

(4.3) This CSD will be available on the e tendering portal as corrigendum to the tender documents.

(4.4) The tender submitted by the tenderer shall be based on the clarification, additional facility issued (if any) by the Department, and this tender shall be unconditional. Conditional tender will be summarily **REJECTED**.

(4.5) Point / Points if any throw online by the contractor in online queries and not finding place in CSD issued after they are deemed rejected. In such case the provision in NIT shall prevail. No individual correspondence will be made thereafter with the contractor in this regard.

(4.6) All Intending Tenderers are cautioned that the tenders containing any deviation from the contractual terms and condition, specifications or other requirements, and conditional tenders will be treated as non-responsive.

(4.7) If CSD is not issued uploaded by the Department then it shall be deemed that there is no any Amendment to NIT.

a. EARNEST MONEY DEPOSIT (EMD):-

- (5.1) Earnest Money Deposit (EMD.) which should be paid online using NEFT/RTGS or payment gateway mode only as prescribed elsewhere in the Tender Document. Earnest Money in any other form or cash or cheques will not be accepted.
- (5.2) **The EMD Exemption Certificate is not allowed.**
- (5.3) Required amount of EMD must be paid through the Bank Account in the name of Tendering Firm only. **Screenshot of EMD transaction showing Name & Account Number shall be uploaded in Envelop No. 1**
- (5.4) Any tender not accompanied by the EMD shall be rejected as non-responsive.
- (5.5) The amount of EMD will be forfeited, in case a successful contractor does not pay the amount of initial security deposit within the time specified as stipulated by the Deputy Engineer (Civil) and complete the contract documents. In all other cases, EMD will be refunded to account provided by the bidder during the bid preparation by Concerned Divisional Office.
- (6) **CONDITION FOR PAYMENT OF ADDITIONAL PERFORMANCE SECURITY DEPOSIT IF THE OFFER IS RECEIVED LOWER MORE THAN 1% BELOW**

In Case lowest successful bidder's offer found more than 1.00% below the estimated cost put to tenderer, in that case, the tender shall have to pay Additional Performance Security deposit drawn in favor of the Maharashtra Film Stage and Cultural Development Corporation Limited in the form of Demand Draft only) within 8 (eight) days [in no case limit of 8 days will be increased] from the date of opening of Financial Bid i.e. Envelope No 2 as specified below

- 6.1 Amount of Additional Performance Security Should be rounded upto two decimals only.
- 6.2 All above Demand Draft shall be of either of Government Bank or of Scheduled Bank drawn in favor of Maharashtra, Film, Stage & Cultural Development Corporation Limited (MFSCDCL) only. In respect of Demand Draft, it's duly mentioning the MICR and IFSC code of said bank shall be mentioned specifically on the said Demand Draft.
- 6.3 The said amount of Additional Performance Security shall not carry any interest whatsoever.

6.4 In case of lowest successful bidder whose offer found more than 1% below fails or neglects to deposit the Additional Performance Security within 8 (eight) specified days, then his EMD shall be forfeited to Government and 2nd lowest tenderer will become lowest and will be negotiated for award of work.

Sr.No.	Financial Offers acknowledged by MFSCDCL from the Technically Qualified Bidders	Additional Performance Security Deposit (APSD) in % of estimated cost put to the tender
1	For offers Up to 1% below the estimated cost put to the tender	0%
2	For offers from 01% to 10% below the estimated cost put to the tender (0%+ 10%)	10%
3	For offers from 10 % to 20% below the estimated cost put to the tender (0%+10%+ 15%)	25%
4	For offers from 20 % to 30% & further below the estimated cost put to the tender (0%+10%+15%+ 20%)	45%

6.5 In case the lowest successful bidder whose offer found more than 1% below fails or neglect to deposit the additional performance security within 8 (eight) specified days, from the date of opening of financial bid then his EMD shall be forfeited to Government and

2nd lower tenderer will become lowest and will be negotiated for awarded work the said amount of additional performance security shall not carry any interest whatsoever.

Special Notes:

1) EMD, Security Deposit, Additional Performance Security Deposit (APSD) will be refunded only after Successful Completion of the DLP (Defect Liability Period) as per the Tender conditions.

2) In case of we receive the same financial offers from Two or More Technically Qualified Bidders/Participants then in such case, the tender Will be offered/awarded to such a technically qualified Bidder who possesses the Maximum Value of Single Work Completion Cost as per the similar work Qualifying Criteria of the tender.

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7. Manner of Submission:

7.1 Uploading of Formats, Templates and Tender Documents: -

- (a) The Intending Tenderer shall prepare the Bids in the Templates provided online as part of tender. The Templates shall be either Documents based (in which the Intending Tenderer is required to attach the relevant documents separately) or Forms Based (in which the Intending Tenderer is required to fill in the information in given Formats).
- (b) The required Documents (single document or a compressed file containing multiple documents having size of each document not more than 5 MB) available in Brief Case shall be attached against each up loadable option in the Document Based Templates.
- (c) The Information being filled in the Form Based Templates shall be encrypted using a valid class II / III DSC.
- (d) The Formats/ Templates shall be uploaded in Envelope No.1 (**Technical Bid**) on the sub- Portal <http://mahatender.gov.in>
1. Tenderer must pay EMD by way of using online Gate way payment facility/NEFT/RTGS only as prescribed elsewhere and upload the scanned copy of **Screen shot of payment showing the name & account number of Tendering Firm.**
 2. **Scanned Copy** of Original valid Certificate of Construction or legal status of bidder with place registration as may be applicable.
 3. **Scanned Copy** of AFFIDAVIT regarding correctness of uploaded Documents in the given ANNEXTURE- A (***The Original Copy of the Bond of the above affidavit should be submitted before award of work to Concerned Division Office***)
 4. **Scanned copy of** Details of the works tendered for and in hand with the value of the work unfinished on the last date of submission of tender (in Statement No. 1, on **page No. 36**). The Statement from the Head of the Officer under whom the works are in progress should be uploaded.
 5. **Scanned copy of** the list of owned machinery and Plants immediately available with the tenderer for use on this work and the list of machinery proposed to be utilized on this work, but not immediately available and the

Way it is proposed to be procured. (In Statement No. 2 and 2(A) on **page No. 37-39 respectively.**)

6. **Scanned copy** of the list of the details of work of similar type and magnitude carried out by the contractor during last three years (in **Statement No.3 Page No. 40**)
7. **Scanned copy of list of** details of technical personnel on the rolls of the tenderers. (in the **Statement No. IV on Page No. 41**)
8. **Scanned copy** Partnership Deed and Power of Attorney, in case of a firm tendering for work. (only Electrical/HVAC)
9. **Scanned copy** of Valid Professional Tax Registration Certificate in the Form of PTR and PTE under Section (I) of Section 5 of Maharashtra State Tax in Profession, Trade calling and Employment Act, 1975 Rule 3(2) for Employees including technical personnel from the Professional Tax Office of the concerned district of Maharashtra.
10. **Scanned copy of** Registration Certificate of GST registration Certificate from concerned authority under GST Act 2017.
11. Scanned Copy of Integrity Pact executed on plain paper in the given format only duly signed by Authorized signatory (The Original Copy of the Integrity Pact shall be submitted before award of work to Concerned Division Office)
12. **QUALIFICATION CRITERIA: -**

To qualify for award of the contract each tenderer in his name should have in the last Five Years i.e. from FY 2018-19 to FY 2022-23 as specified.

Sr. No.	Description	Qualification Criteria as Per PWD Norms	Qualification Criteria as Per this Tender/NIT
A	Maximum Annual turnover (ATC) of the bidder in the last 5 years (from FY 2018- 19 to FY 2022-23 as specified)	Minimum 75 percent of the cost per annum for the work under consideration. Annual cost = (Total Cost of Work/ Period of execution in years)	Annual cost = 460952581 /(18/12) Annual cost =30.73 Crore Minimum 75 percent of the cost per annum =46.09 x 0.75= 34.57 Crores INR
B	Minimum one work shall be done of similar nature in the last 5 years having minimum cost of	As per the cost of work (at prevalent rate) 1. Work costing Rs. 1 Cr to Rs. 10Cr - 30 Percent 2. Work costing more, then 10 Cr - 60 Percent or Rs. 6 Crores, whichever is more.	Rs.27.66 Crores INR

	Minimum Two work shall be done of similar nature last 5 years having minimum cost of	As per the cost of work (at prevalent rate) Two similar works of value not less than (50% of Tender Cost)	Rs.23.05 Crore INR
	Minimum Three work shall be done of similar nature in the last 5 years having minimum cost of	As per the cost of work (at prevalent rate) Three similar works of value not less than (40% of Tender Cost)	Rs.18.43 Crore INR
C	Apart From Similar Nature work Quantity in any one year in last 5 Years, the minimum quantity of the important items and the quantity executed (From similar nature work orders/some other work orders preferably from Government Projects)	30 percent of the quantity of important items of the work under consideration.	i) Minimum Civil Cost=0.30x36.81 =11.04 Crore INR ii) Minimum Combined Mechanical Electrical Plumbing (MEP) Firefighting & HVAC Cost= 0.30x9.28 =2.78 Crore INR iii) Valid Electrical License from the PWD /MCGM/BMC should be in the name of either Tendering firm or authorized Proprietor/Partner/Director of the Participating Tendering Firm iv) Tendering firm Should have BMC/MCGM Licensed Structural Engineer having valid Structural License of Minimum 25m height on their Payroll or as a Competent Consultant/ Structural Engineer

D	Bid Capacity of the bidder (BC)	(A*N*2)-B Where, A =Maximum turn over in the last 5 year (at prevalent rate) N = period of completion of work in years B = Cost of works in hand (during the period of work under consideration.	Bidder who meets the minimum qualification criteria will be qualified only if their available bid capacity is more than the total bid value of 46.09 Crore INR																		
E	*Similar Work Means” <i>Complete Upgradation Work in Concrete/Structural Steel for Film Studios/Cultural Halls/Theaters/Auditoriums or Equivalent Commercial/Institutional Government/Private Structures/hospitals/similar major repair works of same magnitude experiencing Similar Gatherings/Loadings</i> ” (Preference will be given for Government Owned Buildings/Structures.) is mandatory that, the bidder has completed the specific nature of work																				
F	Bidder should have carried out following minimum quantities of items of work in any One year in last 5 years <table><tr><th>Sr.No</th><th>Items</th><th>Bidder should have carried out following minimum quantities</th></tr><tr><td>1.</td><td>Concrete Work</td><td>115.00 Cum</td></tr><tr><td>2.</td><td>Plastering work</td><td>6125.00 Sqm</td></tr><tr><td>3.</td><td>Waterproofing</td><td>1085.00 Sqm</td></tr><tr><td>4.</td><td>Ready Mix Polymer mortar</td><td>1360.00 Sqm</td></tr><tr><td>5.</td><td>Painting work</td><td>27500.00 Sqm</td></tr></table> Note: -Certificate of Minimum quantity item work not below the rank of executive engineer & above			Sr.No	Items	Bidder should have carried out following minimum quantities	1.	Concrete Work	115.00 Cum	2.	Plastering work	6125.00 Sqm	3.	Waterproofing	1085.00 Sqm	4.	Ready Mix Polymer mortar	1360.00 Sqm	5.	Painting work	27500.00 Sqm
Sr.No	Items	Bidder should have carried out following minimum quantities																			
1.	Concrete Work	115.00 Cum																			
2.	Plastering work	6125.00 Sqm																			
3.	Waterproofing	1085.00 Sqm																			
4.	Ready Mix Polymer mortar	1360.00 Sqm																			
5.	Painting work	27500.00 Sqm																			
G	An escalation of 10 percent per annum shall be considered while calculating turnover and the cost of the work at prevalent rate.																				
G1	Scanned Copy of the Turnover certificate for last five years signed by Chartered Accountant having valid UID No. along with copy TDS certificate and ITR copies with CA signed) Balance sheet/Profit Loss statements.																				
G2	Copy of CA Signed Bid capacity certificate with valid UDIN No & Scanned Copy of Valid Electrical License/Structural License of the Firm or authorized Person as per Prequalification Item ‘D’																				
G3	Scanned Copy of Completion certificate, Work order mentioning Important /Qualification Quantities with TDS copy confirming the Cost of Completion matching with same work completion cost (In case Private/Semi Government Works will be evaluated with 50% weightage) confirming successful completion of Similar work criteria as per the tender.																				

G4	Appointment Letter/CV/Employment Certificate/Payment Slips/PF/ESIC Challans/Deposit Receipts/Form 16 or any other legal document showing the authentic Employment records covering Experience, Nature of job/Designation of employees/technical staff confirming Technical Staff requirements of the tender Related to Road works (Project Manager BE Civil Minimum 5 Year experience with other Three Technical Staffs BE Civil with average three years' experience to be stationed at site after allotment of work order. Evaluation of Similar work Completion Cost shall only be done with the help of these three documents (i.e. Scrutinizing Work Order, Completion Certificate & TDS certificate depicting the same cost) Non-Uploading Work Order copy or TDS certificate along with Completion Certificate liable to reject the Technical Bid unconditionally without any further Clarification)
G5	Scanned Copy of Online Tender fee and EMD Payment receipts showing the name & account number of Tendering Firm. Non-Submission of EMD/Fees Payment Receipt in online technical envelope liable to disqualify the technical bid without any further notice
G6	Scanned copy of Signed Annexure 5 or geo-tagging certificate with only duly sign and stamp (Bidder and Deputy Engineer Civil)
G7	Scanned Copy of AFFIDAVIT regarding correctness of uploaded Documents as per tender. (The Original Copy of the Bond of the above affidavit should be submitted before award of work to Concerned Division Office)
G8	Scanned copy of Signed Documents supporting Statement 2 to 5 as per tender
G9	Scanned copy of Registration Certificate of GST registration Certificate from concerned authority under GST Act 2017.
G10	Scanned copy Partnership Deed or Power of Attorney or valid NSIC or Udyam and Power of attorney documents, in case of a firm tendering for work.
G11	* Joint Venture can be allowed to the extent of 51% - 49%. (only applicable for electrical /HVAC/MEP)
G12	Signed Copy of all the Tender documents along with all Prebid queries/Clarifications/ Addendum if any
G13	Scanned Copy of Any other Document /Declarations/Certificates which is not enlisted above & below.
G14	Scanned copy of the list of owned/Hired machinery and Plants immediately available with The tenderer for use on this work and the list of machinery proposed to be utilized on this work, but not immediately available and the Way it is proposed to be procured. (In Statement No. 2 and 2(A) respectively.)
G15	Scanned copy of Valid Professional Tax Registration Certificate in the Form of PTR and PTE under Section (I) of Section 5 of Maharashtra State Tax in Profession, Trade calling and Employment Act, 1975 Rule 3(2) for Employees including technical personnel from the Professional Tax Office of the concerned district of Maharashtra
G16	Scanned copy of list of details of technical personnel on the rolls of the tenderers. (In the Statement No. IV)
G17	Scanned Copy of Integrity Pact executed on plain paper in the given format only duly signed by Authorized signatory (The Original Copy of the Integrity Pact shall be submitted before award of work to Concerned Division Office)

G18	Joint Venture / MOU bid acceptable (Scanned copy of notarized or registered with the registrar of company's register office for Joint venture agreement) If the tender is to be submitted through a joint venture, the joint venture submitted should be notarized and if tender is the lowest bidder in the submission of the tender, you are required to register with the Register of the company office for the said work contract.
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Note: - All the documents mentioned in NIT including Technical bid cover letter (Page No.215) and certificate of Geo tagging (Annexure on Page no 214) should be submitted along with technical bid.

Hardcopy of uploaded tender documents merged with submitted within a 24-hour period following of the technical Bid.

Note: - The downloaded Tender Document along with detailed set of conditions issued / additional stipulations (C.S.D.) (if issued) shall be signed by the Intending Tenderer (In the event of Tender being submitted by Firm, it must be signed by the Nominated partner or person holding power of attorney to sign the bid) **submit the same to Division Office before award of work. Along-with original copy of AFFIDAVIT in format ANNEXURE A and original copy of Integrity Pact which is uploaded in Envelope No.1(Technical Envelope)**

2. Envelope No. 2 Tender (Financial Bid)

(1) The Intending Tenderer must quote his offer in form of percentage of Estimated Rates only at the appropriate place provided online.

(8.2) ONLINE Submission: -

- (i)** Submission of online Tender Documents {uploading of Formats & Templates} (in Env no.1) shall be followed by Digitally signed Bid Hashes (Seals) within the Tender Time Schedule (Key Dates)
- (ii)** Then the Intending Tenderer is required to enter the date and encrypt the data using the DSC.
- (iii)** The Hashes are the Thumbprint of electronic Data and are based on one – way algorithm. The Hashes establish the unique identity of Bid Data.
- (iv)** The Bid hash values are digitally signed using valid Class – II or Class – III DSC issued any Certifying Authority.
- (v)** After the hash value of bid data is generated, the intending Tenderer cannot make any change / additions in his bid data.

Note -

- (a)** As the tenders are being processed on the Electronic Tender Management System on Government of Maharashtra, all the provisions of Indian Information Technology Act -2000 (re-enacted) is applicable & binding to all Intending Tenderer, so it is presumed that the contractor gone carefully through the whole tender document

Before using his **DSC for quoting Offer**.

- (b) The Contractor uploads a single document or a compressed file containing documents against each upload able option.
- (c) The Step-by-step procedure as per system requirement must be followed.

9. Deadline for Submission of Tender

The Engineer-in-Charge (Deputy Engineer-Civil) may at his discretion extend the deadline for submission of tender by issuing an addendum in which case, all rights and obligations of the Government and Tenderers previously subjected to the original deadline shall therefore be subjected to new deadline as extended.

- 11. Close for bidding (Generation of Super Hash Values) :** After the expiry of the cut off time of Bid Preparation and Hash Submission stage to be completed by the Intending Tenderer has lapsed, the Tender will be closed by the Tender Authority. The Step-by-step procedure as per system requirement must be followed. The Tender Authority from MFSCDCL shall generate and digitally signed the Super Hash values (Seals).

- 12. Decryption and Re-encryption of Bids (Submitting the Bids online) :-** The Intending Tenderers are expected to get themselves fully conversant with the GoME-Tender System and latest changes therein. However brief details about E- Tender System, it's requirements, necessary procedure regarding purchase of Tender Forms, downloading of Tender Forms, Submission of Tender Documents, quoting offer etc, has been mentioned below.

(12.1) After the time for generation of Super Hash values by the Tender Authority from MFSCDCL has lapsed, and after making online payment towards Fees of Service Provider, the Contractors are required to decrypt their bid data using their DSC and immediately re-encrypt their bid data using the Public Key of the Tendering Authority. The Public Key of the Tendering Authority is attached to the Tender during the Close for Bidding stage.

(12.2) At this time, the Intending Tenderer are also required to upload the files for which they generated the Hash Vales during the Bid Preparation and Hash Submission stage.

(12.3) The Bid Data and Documents of only those Intending Tenderer who have submitted their Bid Hashes (Seals) within the stipulated time (as per the Tender Schedule), will be available for decryption and re-encryption and to upload the relevant documents from Briefcase.

(12.4) A Intending Tenderer who has not submitted his Bid Preparation and Hash Submission stage within the stipulated time will not be allowed to decrypt/ reencrypt the Bid Data / submit documents during the stage of Decryption and Reencryption of Bids (submitting the Bids Online)

(12.5) The Step-by-step procedure as per system requirement must be followed.

13. Receipt of Tender After Deadline: The Tenderer will have to carry out their respective tasks within the deadline defined in the Tender Schedule.

14. Department will not be responsible, for non-Enrolment and non-Empanelment of ETMS, non-submitting / uploading tender online due to failure of internet services, or power supply or online submission of Tender Fees of EMD or any other unforeseen or foreseen reasons/causes what-so-ever. No claims on any of the above or any other factors in the regards will not be entertained.

15. Opening of Technical Bid (Envelope No. 1) :

15.1 Tenders will be opened as per the Tender Schedule, (if possible) in the presence of such intending Tenderers or his/ their authorized representatives who may be present at that time.

(15.2) Tenders will be opened **as per the Tender Schedule,**

(a) All tenders are to be received on-line so Tender Opening Authority not able to know who have submitted tender. Therefore, it is not possible to communicate the date and time of Tender opening to Tenderer. Hence it is responsibility of Tenderer remain keep in touch with

concerned office to know the date and time of Tender Opening to present for Tender Opening. Therefore, all Tender Opening Procedure will be done in the presence of such tenderer who may wish to be present or their representatives. No claim or any grievances will be entertained what-so-ever by the Tender Opening Authority in this regard.

(b) The Tendering Authority will first open the Envelope – I documents of all Intending Tenderer and after scrutinizing these documents will shortlist the Intending Tenderer who are eligible for Financial Bidding Process. The Short-listed Tenderers will be intimated by e-mail.

(c) The Contents in Envelope No. 1 will be verified by the Tender opening authority to check their validity as per requirements. If any particular document of any tender is either missing or does not meet the requirements as specified above then a above to that effect will be recorded by the tender opening authority at the time of short listing of Envelope – 1.

16. Opening of Financial Bid (Envelope No. 2)

(16.1) The Envelope No. 2 of the tenderer whose Envelope No. 1 does not contain the specified documents or any of the specified document is missing or do not satisfy the requirements, such tenders will be rejected. The Envelope No. 2 of such tender shall not be opened and a note to that effect will be made online at the time of short listing of Envelope -1

(16.2) After the analysis and scrutiny of documents and evaluation with respect to Departmental Requirement is over, the tender opening authority shall intimate the date and time of opening of Envelope No. 2 to the Eligible Tenderers. The Envelope No. 1 shall be opened as per tender schedule.

(16.3) The Envelope No. 2 of Eligible Tenderers shall be opened serially. The percentage above or below over the estimated cost put to tender by the Department quoted by each Eligible Tenderers shall then be read out by tender opening authority and shall be reflected online for information of those present / participated.

(16.4) In the case of difference between the rates written in figures and in words, the correct rate will be the one, which is lower of the two

17. Tender Liable for Rejection.

Tender is liable for outright rejection if on opening it is found that –

- (a) If Tenderer has not strictly followed the procedure laid down for submission of tender.
- (b) If the tender is CONDITIONAL
- (c) If the Tenderer has quoted his offer anywhere else other than specified place provided.
- (d) The Tenderer has not uploaded the documents or failed to fill the templates as stated.
- (e) Any Corrections, modifications, additions, omission, or any type of changes in main tender document is not permissible and if it is found or noticed at any stage the tender shall be rejected by forfeiting the EMD.

17 (i) Contractor will be solely responsible and liable for action under Indian Penal Code for submission of any false information, false bills/ invoice / vouchers of purchase of material in supporting proof of purchase, proof of testing / test results and any other required documents submitted by his staff /

representative or by himself or subletting company / contractor during contract period or even after completion of work till finalization of bill and completion of defect liability period.

17 (ii) If false information / documents are submitted as mentioned above, the contractor will be blacklisted and if contract is at initial stage, then such contract will be terminated and no compensation will be payable on any account to the contractor.

17 (iii) MFSCDCL Officials / MFSCDCL Officers / Divisional Accounts Officer will not be responsible for any complications due to submission of false / fraudulent documents by the contractor as mentioned above.

18. The Contractor will have to sign the tender papers and the drawings C.S.D. according to which the work is to be carried out. He shall also have to give a declaration to the effect that he has fully studied the plans, specifications, local conditions and availability of labor and materials and that he has quoted his rates with due consideration to all these factors. and same shall submit to Division office before award of work.

19. The acceptance of the tender may be intimated to the Contractor telegraphically or **otherwise (even may be by e-mail)** and either by the Officer competent to accept the tender or any authority in the department including Government and such intimation shall be deemed to be an intimation of acceptance of the tender given by the authority competent to accept the tender.

20. SECURITY DEPOSIT:-

(20.1) The Total Initial Security Deposit to be paid shall **be 1% (One Percent)** of amount put to tender.

(20.2) The Successful tenderer shall have to pay, Fifty percent of the Security Deposit in the form of National Saving Certificate or in the form of Bank Guarantee (in the form as prescribed by Govt.) from any (Govt/Nationalised Bank) in favor of **Maharashtra, Film, Stage & Cultural Development Corporation Limited (MFSCDCL)** within 8 days of acceptance of tender, and the balance security deposit will be recovered from running account bills at the percentage as shown in item (d) of the memorandum in printed B-1 form or as may be decided by the Deputy Engineer (Civil) during course of execution of the work looking to the position and

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circumstances that may prevail, whose orders will be final and binding on the contractor.

- (20.3)** The Security Deposit for the due performance of the contract shall be as detailed in the tender documents elsewhere. Fifty percent of the Security deposit will have to deposited within eight days of the acceptance of the tender and the Balance Security Deposit will be recovered from the Running Bills at the rates as specified in the tender form on the cost of work as per CSR prevailing at the time of acceptance of tender. Amount of total security deposit to be paid shall be 1% (One Percent) of the cost of work worked out as per **S.S.R. 2022-23** of respective District.
- (20.4)** Initial Security Deposit may be in Bank Guarantee form in format on page no.200 to 201 of Tender document for full period of completion of work and it should be extendable upto expiry of valid extension if any, as directed by Engineer-in-charge.
- (20.5)** In the event of the tenderer to pay cash security deposit within 8 days (unless **extended** in writing by the Deputy Engineer (Civil),) from the date of receipt of notice (sent by Registered Post) of acceptance of his tender, the amount of EMD shall be forfeited to Government and the acceptance of his tender, shall be considered withdrawn. Except that in the event of the notice of acceptance of the tender not being issued within 120 days of the date of opening of Envelope No. 2 (financial bid). The tenderer shall have the option (to be intimated in writing in good time before the expiry of 120 days period) of withdrawing his tender, in which case the earnest money should be refunded in full. All the tenders shall remain open for acceptance for 120 days from the date fixed for opening of envelope No.2 (financial bid) and thereafter until it is withdrawn by the tenderer by notice in writing as per condition No2 of the Memorandum on

21. Income Tax:-

Income tax @ 2.00 % and surcharge thereon or at the rates amended from time to time as intimated by competent Income tax authority shall be deducted from bill amount, whether measured bills, advance payment, or secured advance.

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22. GST

GST @ 2% at the rates as amended from time to time as intimated by competent GST Authority shall be deducted from bill amount, whether measured bills, advance payment, or secured advance

23. Insurance:-

As per the Govt. Resolution No. FD/Insurance 1098/ cess No. 28/98 dated 19/08/1998 and Director of Insurance Maharashtra, Mumbai letter dated 26/04/2005. Contractor must submit Govt. insurance policy before starting the work, failing to which an amount equivalent to (1%) one percent of the tendered cost will be recovered from the first Running Account Bill of this work.

ii) If completion period of work is Extended then period of work Insurance must be renewed extended as per requirement.

- 24. BUILDING & OTHER CONSTRUCTION WORKERS WELFARE CESS:-** Building & other Construction workers welfare cess @ 1% or at the rates amended from time to time as intimated by the competent authority of Building and other construction workers welfare Act, 1996 shall be deducted from bill amount, whether measured bill, advance payment, or secured advance.

- 25.** The contractor whose tender is accepted is required to note that no foreign exchange will be released by the Department.
- 26.** The e-notice-inviting tender and shall form part of the tender agreement.
- 27.** The Tendering Authority is interested to make payment of contractor's bill through ECS / NEFT system. For this purpose, contractor should open his Bank Account, having core banking facility only.

28. TIME LIMIT:-

The work is to be completed within time limit as specified in the Tender which shall be reckoned from the date of written order of commencing the work and shall be inclusive of monsoon period.

29. TENDER RATE:-

No alteration in the form of tender and the schedule of tender and no additions in the scope of special stipulation will be permitted. Rates quoted for the tender shall be taken as applicable to all leads and lifts.

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30. TENDER UNITS:-

The tenderer should particularly note that the unit mentioned in the schedule 'B' on which the rates are based. No changes in the units shall be allowed.

31. CORRECTION:-

No correction shall be made in the tender documents. Any corrections that are to be made, shall be made by crossing the incorrect portion and writing the correct portions above with the initials of tenderer.

32. TENDER ACCEPTANCE: -

Acceptance of tender will rest with the Deputy Engineer (Civil), MFSCDCL, Goregaon, Mumbai who reserve the right to reject any or all tenders without assigning any reason thereof. The tenderer whose tender is accepted will have to enter into a regular B-1 agreement within 10 days of being notified to do so. In case failure on the part of tenderer to sign the agreement within the stipulated time, the earnest money paid by him shall stand forfeited to the Govt. and the offer of the tenderer shall be considered as withdrawn by him.

33. POWER OF ATTORNEY :-

- I. If the tenderer is a firm or company, they should in their forwarding letter mention the names of all partners together with the name of the person who holds the power of Attorney authorizing him to conduct all transactions on behalf of the body, along with the tender.
- II. The tenderer may in the forwarding letter mention any points he may wish to make clear but right is reserved to reject the same or the whole of the tenders if the same become conditional tender thereby.
- III. The contractor or the firms tendering for the work shall inform the Department if they appoint their authorized Agent on the work.
- IV. No foreign exchange will be released by the dept. for the purchase of plants and machinery for the work by the contractor.
- V. Any dues arising out of contract will be recovered from the contractor as arrears of Land Revenue if not paid amicably. Moreover, recovery of Government dues from the contractors will be affected from the payment due to the contractor from any other Government works under execution with them.

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- VI. All pages of tender document, conditions, specifications correction slips etc. shall be initialed by the tenderer. The tender should bear full signature etc shall be initialed by the tenderer. or his authorized power or Attorney holder in case of firm.
- VII. The Successful tenderers will be required to produce to the satisfaction of the specified concerned authority, a valid and concurrent license issued in his favor.
34. **VALIDITY PERIOD:**
The offer shall remain open for acceptance for mini mum period of 120 days from the date of opening of Envelope No. 2 (financial Bid) and there after until it is withdrawn by the contractor by notice in writing duly addressed to the authority opening the tender and sent by registered post. Acknowledgment due. (Refer to memorandum on page 56 to 58 of B-1 form chapter)
35. The right is reserved to revise or amend the contract document prior to the due notified for the receipt of tender or extended date. Such deviations, amendment, or extensions, if any, shall be communicated in the form of corrigendum, by letter and / or by notice in newspapers as may be considered suitable.
36. The tender submitted by the tenderer remain valid for a period of 120 days from the date of opening of Envelope No. 2(Financial Bid) tenderers. Also see para 2 of General Rules etc. of contract form.
37. The contractor(s) whose tender is accepted is required to note that no foreign exchange will bere leased by the Department.
38. The tenderers, who do not fulfill all or any of the conditions or are incomplete in any respect are liable to summarily rejection.
39. Right to reject any or all tenders without assigning reasons therefore is reserved. The acceptance of the tender lies with the Deputy Engineer (Civil), MFSCDCL, Goregaon, Mumbai.
40. The Notice inviting tender shall from part of the tender agreement.
41. The successful tenderers will be required to produce to the satisfaction of the specified concerned authority, a valid and concurrent license issued in his favor under the provisions of the Contract Labor (Regulation and Abolition) Act 1970 before starting the work. Failure to do so, acceptance of the tender shall be liable to be withdrawn and earnest money for feited.
42. **INSTRUCTION TO CONTRACTOR:-**
 1. In case the tenderer whose offer is found lowest is requested to negotiate and reduce the offer & If the contractor, does not respond within a period of 10 days the tender accepting authority without issuing any reminder the right to reject such tender.
 2. In case the contractor who is informed of acceptance of his tender, dose not remit the initial Security Deposit within a period of 8 days, the tender accepting authority reserves the right to forfeit the Earnest Money Deposit without issuing any reminder to take further action according to the tender provision.
43. Contractor shall submit a certificate to the effect that, all the payments to the labor. / Staff are made in bank accounts of staff linked to Unique Identification Number *AADHAR CARD)" The Certificate shall be submitted by the contractor within 60 days from the commencement of contract. If the period of contract is less than

60 days then such certificates shall be submitted within 15 days from the date of commencement of contract.

44. Tenderer should note that, Tenderer shall quote for the PART-A (i.e., work portion) of Schedule B Items only. The accepted percentage rates shall be applicable for PART-A (i.e., work portion) only and not be applicable to the Part-B (i.e., Royalty & Testing charges) of Schedule B.

45. **Integrity Pact**

- (1) Integrity Pact executed on plain paper in the given format only duly signed by Authorized signatory shall be part of the Contract Agreement.
- (2) Any Corrections, modifications, additions, omission, or any type of changes in format given in Tender is not permissible and if it is found at any stage the tender shall be rejected by forfeiting the Security Deposit.
- (3) Successful Bidder shall submit the Original Copy of the Integrity Pact before award of work to Concerned Division Office.

46. The measurements of work will be taken according to the usual methods in use in the Dadasaheb Phalke Chitranagari (MFSCDCL) and no proposals to adopt alternative methods will be accepted. The Deputy Engineer (Civil)'s decision as to what is "the usual method in use in the Dadasaheb Phalke Chitranagari (MFSCDCL)" will be final.

42. **Payment of stamp duty**

As per article 63 of Bombay stamp (Amendment) Act, 2006 and further amendments in April 2015 the contractor shall have to pay stamp duty on the value of accepted tender amount as per prevailing rate declared by the Government of Maharashtra from time to time before work order. The rates quoted by the contractor will be deemed to have considered all taxes, duties etc. including stamp duty. No separate claim will be entertained on this account by the Employer. The stamp duty has to be paid on GRAS online/e-SBTR through net banking or any other medium as per the direction of the government in this regard.

As per article 63 of the Bombay stamp act. the stamp duty is payable as per the following rates which is payable and mandatory for the execution of the contract before the work order.

- 1] For the work having contract price up to Rs. 10,00,000-Rs. 500/-
- 2] For the work having contract price above Rs. 10,00,000/-
Rs. 500/- + 0.10 % of amount more than Rs. 10,00,000/-

43. **GST :** (1) For GST charges on Royalty and material testing, the receipt of payment of GST charges on royalty and testing charges shall be submitted by the contractor at the time of bill Payment and amount will be reimbursed to the contractor accordingly.

The rates quoted by the contractors should be exclusive of GST. The contractor should pay GST whichever is applicable and submit the receipt to MFSCDC. The GST amount will be reimbursed to the contractor on producing the receipt /challan.

44. **The tendered cost includes Repair/Restoration/Upgradation of all the studios from 1,2,5,7,16 & Hospital Building. However actual allotment of work shall be as per actual booking schedule of the studios. The contractor has to execute the upgradation work in consultation with MFSCDCL as per the availability of the studio at actual.**

45. **Joint Venture / MOU bid acceptable only applicable for electrical /HVAC/MEP (Scanned copy of notarized or registered with the registrar of company's register office for Joint venture agreement)**

If the tender is to be submitted through a joint venture, the joint venture submitted should be notarized and if tender is the lowest bidder in the submission of the tender, you are required to register with Register of company office for the said work contract.

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Note 1 :

1. सर्व किंमतीच्या (ई निविदेसोबत जोडलेली (अपलोड केलेली) सर्व कागदपत्रे खरी असल्याबाबतचे प्रतिज्ञापत्र (परिशिष्ट-1) 100/- रुपयांच्या स्टॅम्प पेपरवर लिफाफा क्र. 1 मध्ये जोडणे कंत्राटदारास बंधनकारक करण्यात येत आहे. निविदेतील लिफाफा क्र. 1 मध्ये तसेच निविदा मंजूरी व नंतर देयके अदा करताना जोडलेली कागदपत्रे खोटी व बनावट असल्याची बाब निविदा उघडल्यानंतर निदर्शनास आल्यास कंत्राटदार पूर्णपणे जबाबदार राहतो. सा.बा. विभागाचे अधिकारी जबाबदार राहणार नाहीत.
2. निविदा लिफाफा क्र. 1 उघडल्यानंतर कंत्राटदाराने निविदेसोबत जोडलेल्या कागदपत्रातील कोणतीही कागदपत्रे खोटी असल्याचे आढळून आल्यास संबंधित कंत्राटदार यांच्या लिफाफा क्र. 2 म उघडता सदर कंत्राटदाराची निविदा अपात्र ठरविण्यात येईल. संबंधित कंत्राटदार नोंदणीकृत असल्यास त्यास काळ्या यादीत टाकणेची प्रक्रिया विहित नियमानुसार कंत्राटदारास स्पष्टीकरण देण्याची संधी देऊन व त्याचे स्पष्टीकरण विचारात घेऊन व तपासून त्यास अंतिमतः काळ्या यादीत टाकणेचा प्रस्ताव शासनास सादर करण्यात येईल. कंत्राटदारा नोंदणीकृत नसल्यास सदर प्रकरणात न्यायालयात Caveat दाखल करून व कंत्राटदारास 15 दिवसांची नोंदीस देऊन त्यावर कंत्राटदाराचे उत्तर प्राप्त करून घ्याव्यात कंत्राटदारास काळ्या यादीत टाकणेबाबतचा प्रस्ताव शासनास सादर करण्यात येईल.
3. निविदा स्विकृती पूर्वी निविदेसोबत जोडलेल्या कागदपत्रात, कार्यारंभ आदेश स्तरावर व ते निर्गमित केल्यानंतर अथवा निविदा कालावधी, रोपदामित्व कालावधी व पत्रव्यवहार यात व देयक अदा करताना कोणतीही कागदपत्रे खोटी असल्याचे आढळून आल्यास संबंधित अभियंता यांनी भा.द.वि.स. अंतर्गत कंत्राटदाराविरुद्ध फौजदारी गुन्हा दाखल करण्याची कार्यवाही तातडीने करण्यात येईल.
4. शासनाने रु. 150 लक्ष रकमेपेक्षा जास्त रकमेच्या निविदांसाठी कंत्राटदाराच्या नोंदणीची अट काढून टाकलेली असल्यामुळे सदर जाबतीत निविदा सादर करणाऱ्या कंत्राटदार, व्यक्ती, भागीदारी संस्था, संस्था चालक, कंपनी व्यवस्थापक इ. विरुद्ध संबंधित कार्यकारी अभियंता यांनी भा.द.वि.स. अंतर्गत कंत्राटदाराविरुद्ध फौजदारी गुन्हा दाखल करण्यात येईल.
5. सा.बा. विभागात निविदेसोबत जोडलेल्या बऱ्याचशा कागदपत्रांची तपासणी महालेखापालांचे स्वतंत्र प्रतिनिधी म्हणून निविदा लिपीक, विभागीय लेखाधिकारी, उपकार्यकारी अभियंता तसेच कार्यकारी अभियंता यांचेकडून केली जाते. यामध्ये निविदेसोबत जोडलेल्या खोटी कागदपत्रांसंदर्भात संपूर्णपणे निविदा सादर करणारे कंत्राटदार जबाबदार राहतो. त्यास सार्वजनिक बांधकाम विभागाने निविदा छाननी करणारे अधिकारी जबाबदार राहणार नाहीत.

6. निविदा स्विकृती कार्यकारी अभियंता, अधीक्षक अभियंता, मुख्य अभियंता तसेच शासन स्तरावरील विविध समित्या यांच्या स्तरावर केली जाते. निविदा स्विकृती नंतर कंत्राटदाराने सादर केलेली कागदपत्रे छोटी आढळल्यास त्यासाठी संबंधित निविदा स्विकृत करणारे अधिकारी / समिती जबाबदार राहणार नाहीत. छोटी / बनावट कागदपत्रांसाठी कंत्राटदार जबाबदार राहतील व त्यांचेवर भारतीय दंड विधान संहितेनुसार कार्यकारी अभियंता हे कंत्राटदारावर फौजदारी गुन्हा दाखल करतील.
7. कार्यारंभ आदेश दिल्यानंतर कंत्राटदारामार्फत सादर होणाऱ्या देयकीसोबत जोडण्यात आलेली कागदपत्रे छोटी आढळल्यास त्यासाठी संबंधित कंत्राटदार भारतीय दंड संहितेच्या विविध कलमाप्रमाणे कारवाईस पात्र राहतील. अशानिविदेतील कामे प्रारंभिक स्तरावर असल्यास निविदा रद्द केली जाईल. व कंत्राटदारास उपरोक्तप्रमाणे काळ्या पाटीत टाकणेत येईल व वरीलप्रमाणे कार्यवाही करण्यात येईल.
8. निविदा अंतिम करताना व दोष दायित्व कालावधीत मुळ निविदा व त्यानंतरचा पत्रव्यवहार, कंत्राटदाराची देयके व त्यासोबतची साहित्य खरेदीची व अन्य बाबींची पूर्तता कागदपत्रे, चाचणी अहवाल इ. गुणवत्ता विषयक कागदपत्रे बनावट आढळल्यास त्या कंत्राटदार संपूर्णतः जबाबदार राहिल. यासाठी सा.बां. विभागाचे अधिकारी /कर्मचारी तसेच विभागीय लेखाधिकारी जबाबदार असणार नाहीत.

A) TECHNICAL ENVELOPE NO 1.

(DOCUMENTS TO BE SUBMITTED ONLINE FOR ELECTRICAL WORK)

- i) The following documents should be scanned and uploaded on the e-Tendering website thereafter by the tenderers for Technical Bid. If any document is not submitted then the tender will be summarily rejected.
- ii) Valid "A" class registration of PWD/ CPWD/ MES.
- iii) Valid electrical contractor License copy issued by Industries, Energy & labour Department.
- iv) Certified true copy of valid registration certificate as a registered GST
- v) Tender Form Fee and EMD must be paid online Net Banking Mode and online payment Receipt scan and upload.
- vi) Details of works of similar type carried out by the contractor (Statement III on page no. 40).
- vii) Details of other works tendered for and in hand, with the value of work unfinished on the last date of submission of tender (Statement I on page no. 36). The certificates from the Head of the Offices under whom the works are in progress should be enclosed.
- viii) List of machinery and plants immediately available with the tenderer for use of this work and list of machinery proposed to be utilized on this work, but not immediately available and the manner in which it is proposed to be procured (Statement II on page no. 37).
- ix) Detail of Technical Personnel on the rolls of tenderer Their names shall be enrolled on Professional Tax returns filed.
- x) Certified copy of partnership deed and power of attorney in case of firm tendering for the work (True copy attested by a Gazetted Officer).
- xi) Proof of appointment of employees including technical personnel by way of valid professional tax registration certificate in form of PT/R/ under section (i) of section 5 of Maharashtra.
- xii) Tentative program of work in the form of Bar chart shall be submitted.
- xiii) The Contractor shall submit and affidavit regarding completeness, correctness and truth fullness of documents submitted for Technical Bid.
- xiv) Income of partnership firm, attested copy of partnership deed, in case of company attested copy of memorandum and article of association and power of attorney shall be submitted.
- xv) Details of works done during last three years with the Value of work unfinished. (Information to be given
- xvi) Even though the Bidder meet the above qualifying criteria they are subject to be disqualified if they have made:
Misleading of false representations in the forms, attachments submitted in proof of qualification requirement

- xvii) Even though the Bidder meet the above qualifying criteria they are subject to be disqualified if they have made: Misleading of false representations in the forms, attachments submitted in proof of qualification requirement And/or Record of poor performances such as abandoning the works, not properly completing the contract, inordinate delays in completion, litigation history of financial failures etc.
- xviii) Assessment order (duly attested by Gazetted Officer) passed by Income Tax Department of A.Y. 2020-21 shall be enclosed.
- xix) The bidders are requested to mandatorily submit the registration certificate of MSME if they are MSME registered supplier, in case if not provided, a declaration for the same stating the reason & criteria area as per MSME act is required.
- xx) Undertaking that bidder has not been Black List/ Banned/ Suspended by any MFSDCL / Semi Govt. /Authority

2.7 Post Qualification Criteria

- 1) All bidders shall upload the following information and documents online for their Technical Bid Envelope.
 - a) Copies of attested document defining the constitution or legal status, place of registration, and principal place of business, written power of attorney of the signatory of the bid to commit the bidder.
 - b) b) Total annual turnover expressed as work performed in each of the last 3 years (Financial year, 2019-20, 2020-21,2021-22) Annual turnover certificate of the Contractor should be certified by Chartered Accountant which was submitted to Income Tax authority at the time of submission of their annual Income Tax Return.
 - c) Experience in works of similar nature and details of works in hand and contractual commitments, clients who may be contacted for further information on those contracts.
 - d) Major items of equipment purposed to be used to carry out the contract.
 - e) Qualification and experience of key site management and technical personnel proposed to be deputed for the contractor should produce the proof appointment by way of valid professional Tax Registration Certificate in the specified Form I-A and II-A, of Maharashtra State Tax on Profession, Trade, Callings and Employment Act 1975, Rules 3(2) and 4(4) respectively, for employees including technical personnel from the professional Tax Officer of concerned district in Maharashtra (MFSDCL Format I-A, II-A and Professional Tax Clearance Certificate are enclosed). Contractor should submit Professional Tax Clearance Certificate from concerned Professional Tax Officer
 - f) Evidence of adequacy of working capital for this contract i.e. evidence of access to lines of credit and availability of others financial resources, in support of this Contractor should submit Bank details for the last three years and necessary certificate from Chartered Accountant.
 - g) Authority to seek references from the bidder's bankers

- h) h) Information regarding any current litigation in which the bidder is involved, the parties concerned and disputed amount.
- i) The Managing Director, MAHARASHTRA FILM, STAGE AND CULTURAL DEV. CORP. LTD., reserves the right to reject any and all of the tenders without assigning any reasons thereof.

1. The agency should have annual turnover of Rs.50.00lakhs For last three years.
2. The quotations will be valid for a period of 120 days from the date of opening.
3. The Corporation reserves the right to assign / withdraw any numbers from maintenance at any time during the contract period without assigning any reason. Charges for maintenance assigned / withdrawn from maintenance will be paid on a pro-rata basis.
4. Corporation reserves the right to reject any & all of the tenders without assigning any reasons whatsoever.
5. The successful agency should draw insurance from Directorate Of Insurance Maharashtra only.

B) ENVELOPE NO.2 : (Financial Bid)

RATE QUOTATION (Annexure A)

Note:

Bidder Must Be Download, Fill Rates and Uploaded in .pdf format.

And

BOQ (Bill Of Quantity)

Note:

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.

a) SUBMISSION OF TENDER:

For submission of tender, tenderer must complete the online bid submission stage as per online schedule of the tender. The tenderers should ensure that their tender is prepared online before the expiry of the scheduled date and time and then submitted online before the expiry of the scheduled date and time. No delay on account of any cause will be entertained. Offers not submitted online will not be entertained.

b) OPENING OF TENDERS

On the date specified in the tender notice following procedure will be adopted for opening of the tender

i) ENVELOPE NO. 1 : (Technical Bid Documents

First of all, Technical Bid (Envelope No. 1) of the tender will be opened in the presence of tender opening authority through e-Tendering procedure to verify its contents as per requirements. If the various documents contained in this envelope do not meet the requirements of MFSCDC, a note will be recorded accordingly by the tender opening authority and the said tenderer's Commercial Bid (Envelope No 2) will be considered for further action but the same will be recorded.

The decision of the tender opening authority in this regards will be final and binding on the contractors.

ii) ENVELOPE NO. 2 (Commercial Bid) :

RATE QUOTATION (Annexure A)

Note:

Bidder Must Be Download, Fill Rates and Uploaded in .pdf format.

And

BOQ (Bill Of Quantity)

Note:

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.

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

ANNEXURE –A
Affidavit
(On Rs. 500/- Stamp Paper)

I..... age address

.....(Authorized signatory to sign the contract) hereby submit, vide this. affidavit in truth, that I am the owner of the contracting firm..... / authorized signatory and I am submitting the documents in envelope no.1 for the purpose of scrutiny of the contract. I hereby agree to the conditions mentioned below:-

1. That I have submitted online Tender for the work.....(Name of work).....on portal <http://mahatenders.gov.in> of MFSCDCL,
2. That I have carefully gone through, read thoroughly studied and understood all terms & condition, specification included in the tender document (Tender Form, Detail Tender Notice, conditions, and specification common set of Deviations drawings etc.) I hereby accept all these conditions, I agree to abide by the terms & condition in the tender document and agree to execute the work a per terms and conditions, specifications laid down in the tender document.
3. That I have Furnished EMD (Earnest Money Deposit) from the Bank Account in the name of my firm only.
4. I do hereby state on oath that the documents uploaded by in Envelope No. 1 of this tender are true, correct and bonafied, There are no errors and omissions in the uploaded documents.
5. I do hereby state on oath that the value of work in hand (value of –B) is accurate on the date of submission of this tender. If in the future it is found wrong or misleading, I am liable for action under Indian Penal Code if any papers are found false/fraudulent during contract period and even after the completion of contract.
6. I am liable for action under Indian Penal Code for submission of any false / fraudulent paper / information submitted in envelope no. 1.
7. The undersigned also hereby certifies that neither our firm M/s/ Shree..... have abandoned any work on Building/Bridges/Roads etc a nor any contract awarded to us for such works have been rescinded, during last five years prior to the date of this bid.
8. The undersigned hereby authorize (s) and request(s) any bank, person, firm or corporation to furnish pertinent information deemed necessary and requested by the Department to verify this statement or regarding my (our) competence and general reputation.

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

9. The undersigned understand and agrees that further qualifying information may be requested and agrees to furnish any such information at the request of the Department/Project implementing agency/Authorized Consultant/PMC/Architect.

10. I am neither associated, nor has been associated, directly or indirectly, with the Consultant or any other entity that has prepared the design, specification, and other documents for the Project or being proposed.

11. I am liable for action under Indian Penal Code if during contract period and defect liability period, any false information, false bill of purchases supporting proof of purchase, proof of testing submitted by my staff, subletting company or by myself, I will be liable for action under Indian Penal Code.

12. I am liable for action under Indian Penal Code if any paper is found false / fraudulent during contract period and even after the completion of contract (finalization of final bill).

13. I/we, hereby solemnly agree that I/we have willingly entered into the contractor with MFSCDCL, Government of Maharashtra for the work of (Name of work) for the said work, I/we am/are buying the required quantities quantity of asphalt having stipulated specifications from the refinery of IOC/HP/BP, I/we also aware of the fact after receiving the said quantity of asphalt from the refinery, it is mandatory upon me to deposit the original copy / copies of challan of asphalt in the office of Deputy Engineer (Civil) in charge of the work this work or his authorized officer, I/we also agree that if I fail to produce sufficient documentary evidence i.e. original copy / copies of challan for the purchase of asphalt, I will be totally held responsible for this noncompliance & in such a case I will be responsible for any actions which the department may deem fit to impose on me/us, or legal proceedings as per prevailing law.

Hence this Affidavit.

Place :-

Date :-

Signature of Contractor

(Signed by an Authorized Officer of the Firm)

The Scanned copy of above AFFIDAVITS should be uploaded in, Envelope No. 1 And the Original Copy of the Bond of the above affidavit should be submitted when demanded by this office or before award of work to Concerned Division Office]

Statement No.I

**Statement of List of Works in Hand and works Tendered for as on Last date of
submission of Submission this tender.**

Name of Contractor : _____

Works in Hand

Sr No	Name of Work	Agree ment No.	Tende red Amou nt	Date of comm encem ent	Stipulat ed date of Comple tion	Value of Work already done	Valu e of bala nce Wor k	Value of balance Work to executed in next 12 months.	Prob able Date of Comple tion	Re ma rks .
1	2	3	4	5	6	7	8	9	10	11
.....Sample Form.....										

(B) Works Tendered For

Sr. No.	Name of Work	Name and address of client	Tendered Amount	Time Limit	Probable Date when decision is expected	Other relevant details if any
1	2	3	4	5	6	7
.....Sample Form.....						

Note : Details are to be uploaded in this format in envelope -1 duly signed.

Signature of Contractor

Deputy Engineer (Civil)

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Statement No. II

Details of Plants and machinery immediately owned and available
with the tendered for this work

Name of Contractor : _____

Sr. No.	Name of Equipment	No. Of Units	Kind and make	Capacity	Age & Condition	Present Location	Remarks
1	2	3	4	5	6	7	8
..... Sample Form							

Signature of Contractor

Note :- Details are to be uploaded in this format in envelope -1duly signed.

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

STATEMENT NO. 2 [A]
(To be included in envelope No.1)

(A) QUESTIONNAIRES OF MACHINERY: -

Performa for information regarding availability / Procurement of machinery required for this work.

Question – 1

Is the above machinery owned by you and available with you for immediate deployment of this work?

If 'yes', please attached the documentary proof of ownership of above machinery & upload information in this sample form.

<i>Type of machine</i>	<i>No. of Units</i>	<i>Name of work on which deployed at present</i>	<i>Location</i>	<i>Out-Put</i>	<i>Work in hand</i>
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----- sample form -----

- 1) The life of new machinery will be considered as 15 Years.
- 2) There will no need of fitness certificate from SE (Mechanical) for first 10 Years.
- 3) After 10th year the machinery shall be checked and certified for its fitness by SE Mechanical / ACE (Mechanical) every year till the 15th years.
- 4) After the 15th year, the contract or will get machinery certified every year from SE / ACE (Mechanical) and produce the certificate of fitness. The Certificate will be required for machinery where it is necessary and not issued by RTO .
- 5) If the above-mentioned machinery in respect Sr. No. 1 to 3 Annexure – I is less than 6 years old, then tenderer shall have to upload the certificate regarding SCADA either from Automation Manifold Service Pvt. Limited Nagpur or Vasundhara IT Pvt. Ltd. Pune in lieu of certificate of Assistant Chief Engineer (Mechanical) in all other cases tenderer must upload certificate of Assistant Chief Engineer (Mechanical) regarding SCADA . In the absence of these certificate , the Envelope No.2 (Financial bid) shall not be opened.
- 6) The owned or hired (as specified above) Drum Mix type Hot Mix Plant or Batch Mix Plant with SCADA must be located within 60 km. from farthest point of work site. The Tenderer shall upload sketch showing the distance from plant to farthest point of work site by the shortest practicable route in the Envelope No.1 After opening the Envelop No.1 It shall be verified by the department (If necessary) that the distance of the plant to the farthest point of work is within 60 kilometers. If the distance found to be more than 60 kilometers and / or the route shown in sketch is not practicable, then Envelope No.2 of bidder will not be opened i.e., bidder will be disqualified. In this connection decision of Opening Authority shall be final and conclusive to all Tenderers.
- 7) In respect of Hired Machinery tender must upload the scanned copy of original Agreement on appropriate stamp paper executed for hired with the company who possess the said machinery along with the documentary proof of owner ship who owned the machinery in envelope No.1
- 8) work site. The Tenderer shall upload sketch showing the distance from plant to farthest point of work site by the shortest practicable route in the Envelope No.1 After opening the Envelop No.1 It shall be verified by the department (If necessary) that the distance of the plant to the farthest point of work is within 60 kilometers. If the distance found to be more than 60 kilometers and / or the route shown in sketch is not practicable, then Envelope No.2 of bidder will not be opened i.e., bidder will be disqualified. In this connection decision of Opening Authority shall be final and conclusive to all Tenderers.

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Condition Regarding Machinery

- 1) If the Machinery is not more than 6 years old, the contractor has to provide TAX invoice (VAT or GST as the case may be) and the transaction details of the purchase of the said machinery i.e., bank statement or bank passbook, No Dues documents in this regard will be considered.
- 2) In the case of pre-owned machinery i.e., purchase / procured from another owner/ user of the machinery, scanned copy of following documents shall be attached.
 - (a) Proof of Ownership of Previous Owner ie. Tax Invoice / Transfer Agreement.
 - (b) Sale Agreement of Machinery.

Note:-The Contractor shall submit only those documents which are required/ asked in the tender documents, uploading of unnecessary attachments with the tender should be avoided.

Signature of Bidder

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Statement No. III

Details of Works of Similar Type and magnitude carried out by the Contractor
last Five Years

Name of Tenderer :

Sr. No.	Name of Work	Name and address of organization for whom the work was done	Place and Countr y	Agreem ent No. and Date	Date of comm encem ent	Tende red cost	Total cost of work done	Date of compl etion	Remark s (Princip al feature as in brief)
1	2	3	4	5	6	7	8	9	10
..... - Sample Form.....									

Note :- Details are to be uploaded in this format in envelope -1 duly signed.

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

**Statement showing Technical Personnel available with the contractor,
which can be speared exclusively for this work.**

Sr. No.	Name of Person	Qualification	Whether working in field of office	Experience of execution of similar works	Period for which person is working with the tenderer	Remarks
1	2	3	4	5	6	7
----- Sample Form -----						
Signature of Contractor						

CONTRACTOR

DEPUTY ENGINEER (CIVIL)

Statement No.V

Statement showing work done in all classes of civil Engineering

Construction works during last Five years.

i.e., 2018-19,2019-20,2020-21, 2021-22,2022-23

Name of Contractor: _____

Sr. No.	Name of Division	Amount Put to tender / tendered cost	Agreement No.	Date of Commencement of work	Amount of work done during each of					Amount of Work still remaining to be executed	Remarks
					Five years.						
					2018-	2019-	2020-	2021-	2022-		
					2019	2020	2021	2022	2023		
1	2	3	4	5	8	9	10	11	12	13	14
----- - ----- - S A M P L E F O R M-- ----- - ----- -											

Out word No. and date of certificate issuing Authority.

Note : Details are to be uploaded in this format in envelope -1 duly signed.

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Statement No.VI

Statement showing quantities of work executed in during last Five
Years (i.e. 2018-19, 2019-20, 2020-21, 2021-22, 2022-23)

Sr. No.	Name of work	Year	Agreement No.						
				Concrete Work	Plastering work	Water proofing	Read mix polymer mortar	Painting work.	Remarks (Indicate concrete reference)
1	2	3	4	5	6	7	8	9	10
		2018-19							
		2019-20							
		2020-21							
		2021-22							
		2022-23							
		Total							

Note -1 : Details are to be uploaded in this format in envelope -1 duly signed.

Signature of Contractor

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL

3.0

INTEGRITY PACT

Between

Dadasaheb Phalke Chitranagari (MFSCDCL),
having its Office at Goregaon East Mumbai -400065

Hereinafter referred to as

**“DADASAHEB PHALKE
CHITRANAGARI (MFSCDCL)”**

and

[Insert the name of the sole Bidder / Lead Partner of Joint Venture]

Having its Registered Office at

[Insert full Address]

and

[Insert the name of the partner[s] of Joint Venture, as applicable

Having its Registered Office at

[Insert full Address]

Hereinafter referred to as

“The Bidder /Contractor”

Preamble

DADASAHEB PHALKE CHITRANAGARI (MFSCDCL) intends to award, under laid – down organizational procedures contractors for (Insert the name of the package)

DADASAHEB PHALKE CHITRANAGARI (MFSCDCL) Values full compliance with all relevant laws and regulations, and the principles of economical use of resources, and of fairness and transparency in its relations with its Bidders/Contractors.

To achieve these goals, DADASAHEB PHALKE CHITRANAGARI (MFSCDCL) and the above-named Bidder/Contractor enter into this agreement called 'Integrity Pact' which will form a part of the bid.

It is hereby agreed by and between the parties as under:

Signature
(For & on behalf of DADASAHEB PHALKE
CHITRANAGARI (MFSCDCL))

Signature
(For & on behalf of Bidder
Partners of Joint Venture/
Contractor)

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Section I – Commitments of DADASAHEB PHALKE CHITRANAGARI (MFSCDCL)

- (1) DADASAHEB PHALKE CHITRANAGARI (MFSCDCL) commits itself to take all measures necessary to prevent corruption and to observe the following principles:
 - a) No employee of DADASAHEB PHALKE CHITRANAGARI (MFSCDCL), personally or through family members, will in connection with the tender, or the execution of the contract, demand, take a promise for or accept, for him/herself or third person, any material or other benefit which he/she is not legally entitled to.
 - b) DADASAHEB PHALKE CHITRANAGARI (MFSCDCL) will during the tender process treat all Bidder(s) with equity and fairness. MFSCDCL will in particular, before and during the tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential/additional information through which the Bidder(s) could obtain an advantage in relation to the tender process or the contract execution.
 - c) DADASAHEB PHALKE CHITRANAGARI (MFSCDCL) will exclude from evaluation of Bids its such employee(s) who has any personnel interest in the Companies/Agencies participating in the Bidding/Tendering process.
- (2) If Principal Secretary MFSCDCL, Maharashtra Government obtains information on the conduct of any employee of DADASAHEB PHALKE CHITRANAGARI (MFSCDCL) which is a criminal offence under the relevant Anti-Corruption Laws of India, or if there be a substantive suspicion in this regard, he will inform its Chief Vigilance Officer and in addition can initiate disciplinary actions under its Rules.

Section II – Commitments of Bidder/Contractor

- (1) The Bidder/Contractor commits himself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the tender process and during the contract execution:

Signature
(For & on behalf of DADASAHEB PHALKE
CHITRANAGARI (MFSCDCL))

Signature
(For & on behalf of Bidder
Partners of Joint Venture/
Contractor)

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

- a) The Bidder/Contractor will not, directly or through any other person or firm, offer, promise or give to DADASAHEB PHALKE CHITRANAGARI (MFSCDCL), or to any of DADASAHEB PHALKE CHITRANAGARI (MFSCDCL)'S employees involved in the tender process or the execution of the contract or to any third person any material or other benefit which he/she is not legally entitled to, in order to obtain in exchange an advantage during the tender process or the execution of the contract.
- b) The Bidder/Contractor will not enter into any illegal agreement or understanding, whether formal or informal with other Bidders/Contractors. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or actions to restrict competitiveness or to introduce cartelization in the bidding process.
- c) The Bidder/Contractor will not commit any criminal offence under the relevant Anti-corruption Laws of India, further, the Bidder/Contractor will not use for illegitimate purposes or for purposes of restrictive competition or personal gain, or pass on to others, any information provided by DADASAHEB PHALKE CHITRANAGARI (MFSCDCL) as part of the business relationship, regarding plans, technical proposals, and business details, including information contained or transmitted electronically.
- d) The Bidder/contractor of foreign origin shall disclose the name and address of the Agents/representative in India, if any, involved directly or indirectly in the Bidding, Similarly, the Bidder/Contractor of Indian Nationality shall furnish the name and address of the foreign principals, if any, involved directly or indirectly in the Bidding.
- e) The Bidder/Contractor will, when presenting his bid, disclose any and all payments he has made, or committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract and/or with the execution of the contract.
- f) The Bidder/Contractor will not misrepresent facts or furnish false/forged documents/information in order to influence the bidding process or the execution of the contract to the detriment of DADASAHEB PHALKE CHITRANAGARI (MFSCDCL).

Signature
(For & on behalf of DADASAHEB
PHALKE CHITRANAGARI (MFSCDCL))

Signature

(For & on behalf of Bidder
Partners of Joint
Venture / Contractor)

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

- (2) The Bidder/Contractor will not instigate third persons to commit offences outlined above or be an accessory to such offences.

Section III – Disqualification from tender process and exclusion from future contracts

- (1) If the Bidder, before contract award, has committed a serious transgression through a violation of Section II or in any other form such as to put his reliability or credibility as Bidder into question, DADASAHEB PHALKE CHITRANAGARI (MFSCDCL) may disqualify the Bidder from the tender process or terminate the contract, if already signed, for such reason.
- (2) If the Bidder/Contractor has committed a serious transgression through a violation of Section II such as to put his reliability or credibility into question, DADASAHEB PHALKE CHITRANAGARI (MFSCDCL) may after following due procedures also exclude the Bidder/Contractor from future contract award processes. The imposition and duration of the exclusion will be determined by the severity of the transgression. The severity will be determined by the circumstances of the case, in particular the number of transgressions, the position of the transgressors within the company hierarchy of the Bidder/Contractor and the amount of the damage. The exclusion will be imposed for a minimum of 12 months and maximum of 3 years.
- (3) If the Bidder/Contractor can prove that he has restored/recouped the damage caused by him and has installed a suitable corruption prevention system, DADASAHEB PHALKE CHITRANAGARI (MFSCDCL) may revoke the exclusion prematurely.

Section IV – Liability for violation of Integrity Pact

- (1) If DADASAHEB PHALKE CHITRANAGARI (MFSCDCL) has disqualified the Bidder from the tender process prior to the award under Section III, DADASAHEB PHALKE CHITRANAGARI (MFSCDCL) may forfeit the Bid Guarantee under the Bid.
- (2) If DADASAHEB PHALKE CHITRANAGARI (MFSCDCL) has terminated the contract under Section III, DADASAHEB PHALKE CHITRANAGARI (MFSCDCL) may forfeit the Contract Performance Guarantee of this contract besides resorting to other remedies under the contract.

Signature
(For & on behalf of DADASAHEB PHALKE
CHITRANAGARI (MFSCDCL))

Signature
(For & on behalf of Bidder
Partners of Joint Venture
/Contractor)

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Section V– Previous Transgression

- (1) The Bidder shall declare in his Bid that no previous transgression occurred in the last 3 years with any other Public Section Undertaking or Government Department that could justify his exclusion from the tender process.
- (2) If the Bidder makes incorrect statement on this subject, he can be disqualified from the tender process or the contract, if already awarded, can be terminated for such reason.

Section VI – Equal treatment to all Bidders/Contractors

- (1) DADASAHEB PHALKE CHITRANAGARI (MFSCDCL) will enter into agreements with identical conditions as this one with all Bidders.
- (2) DADASAHEB PHALKE CHITRANAGARI (MFSCDCL) will disqualify from the tender process any bidder who does not sign this Pact or violate its provisions.

Section VII – Punitive Action against violating Bidders/Contractors

If DADASAHEB PHALKE CHITRANAGARI (MFSCDCL) obtains knowledge of conduct of a Bidder or a Contractor or his subcontractor or of an employee or a representative or an associate of a Bidder or Contractor or his Subcontractor which constitutes corruption, or if DADASAHEB PHALKE CHITRANAGARI (MFSCDCL) has substantive suspicion in this regard, DADASAHEB PHALKE CHITRANAGARI (MFSCDCL) will inform the Chief Vigilance Officer (CVO).

(*) Section VIII – Independent External Monitor/Monitors

- (1) **DADASAHEB PHALKE CHITRANAGARI (MFSCDCL) has appointed a panel of Independent** External Monitors (IEMs) for this Pact with the approval of Central Vigilance Commission (CVC), Government of India, out of which one of the IEMs has been indicated in the NIT/IFB.
- (2) The IEM is to review independently and objectively, whether and to what extent the parties comply with the obligations under this agreement. He has right of access to all project documentation. The IEM may examine any complaint received by him and submit a report to Principal Secretary MFSCDCL, Maharashtra Government, DADASAHEB PHALKE CHITRANAGARI (MFSCDCL), at the earliest. He may also submit a report directly to the CVO and CVC, in case of suspicion of serious irregularities attracting the provisions of the PC Act. However, for ensuring the desired transparency and objectivity in dealing with the complaints arising out of any tendering process, the matter shall be referred to the full panel of IEMs, who would examine the records, conduct the investigations, and submit report to Joint MD MFSCDCL, Maharashtra Government, DADASAHEB PHALKE CHITRANAGARI (MFSCDCL), giving joint findings.
- (3) The IEM is not subject to instructions by the representative of the parties and performs his functions neutrally and independently. He reports to the Principle Secretary MFSCDCL, Maharashtra Government, DADASAHEB PHALKE CHITRANAGARI (MFSCDCL).

Signature
(For & On behalf of DADASAHEB PHALKE
CHITRANAGARI (MFSCDCL))

Signature
(For & on behalf of Bidder
Partners of Joint Venture/
Contractor

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

- (4) The Bidders/Contractors accepts that the IEM has the right to access without restriction to all documentation of DADASAHEB PHALKE CHITRANAGARI (MFSCDCL) related to this contract including that provided by the Contractor/Bidder. The Bidder/Contractor will also grant the IEM, upon his request and demonstration. The same is applicable to Subcontractors. The IEM is under contractual obligation to treat the information and documents of the Bidders/Contractors/Subcontractors with confidentiality.
- (5) DADASAHEB PHALKE CHITRANAGARI (MFSCDCL) will provide to the IEM information as sought by him which could have an impact on the contractual relations between DADASAHEB PHALKE CHITRANAGARI (MFSCDCL) and the Bidder/Contractor related to this contract.
- (6) As soon as the IEM notices, or believes to notice, a violation of this agreement, he will so inform the Joint MD MFSCDCL, Maharashtra Government, DADASAHEB PHALKE CHITRANAGARI (MFSCDCL) and request the Joint MD MFSCDCL, Maharashtra Government, DADASAHEB PHALKE CHITRANAGARI (MFSCDCL) to discontinue or regard submit non-binding recommendations. Beyond this, the IEM has no right to demand from the parties that they act in a specific manner, refrain from action, or tolerate action. However, the IEM shall give an opportunity to DADASAHEB PHALKE CHITRANAGARI (MFSCDCL) and Bidder/Contractor, as deemed fit, to present its case before making its recommendations to MFSCDCL.
- (7) The IEM will submit a writing report to the Joint MD MFSCDCL, Maharashtra Government, DADASAHEB PHALKE CHITRANAGARI (MFSCDCL) within 8 to 10 weeks from the date of reference or intimation to him by PUBLIC WORKS DEPARTEMENT and, should the occasion arise, submit proposals for correcting problematic situations.
- (8) If the IEM has reported to the Joint MD MFSCDCL, Maharashtra Government, PUBLIC WORKS DEPARTEMENT, a substantiated suspicion of an offence under relevant Anti-Corruption Laws of India, and the Principle Secretary MFSCDCL, Maharashtra Governments, DADASAHEB PHALKE CHITRANAGARI (MFSCDCL) has not, within the reasonable time taken visible action to proceed against such offence or reported it to the CVO, the Monitor may also transmit this information directly to the CVC, Government of India.

Signature
(For & On behalf of DADASAHEB PHALKE
CHITRANAGARI (MFSCDCL))

Signature
(For & on behalf of Bidder
Partners of Joint Venture/
Contractor)

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

(9) The word 'IEM' would include both singular and plural.

(*) This Section shall be applicable for only those packages wherein the IEMs have been identified in Section – I: Invitation for Bids and/ or Clause ITB 9.3 in Section – III: Bid Data Sheets of Conditions of Contracts, Volume-I of Bidding Documents.

Section IX – Pact Duration

This Pact begins when both parties have legally signed it. It expires for the Contractor after the closure of the contract and for all other Bidder's six month after the contract has been awarded.

Section X – Other Provisions

- (1) This agreement is subject to Indian Law Place of performance and jurisdiction is the establishment of DADASAHEB PHALKE CHITRANAGARI (MFSCDCL). The Arbitration clause provided in the main tender document / contract shall not be applicable for any issue / dispute arising under Integrity Pact.
- (2) Changes and supplements as well as termination notices need to be made in writing.
- (3) If the Contractor is a partnership firm or a consortium or Joint Venture, this agreement must be signed by all partners, consortium members and Joint Venture partners.
- (4) Nothing in this agreement shall affect the rights of the parties available under the General Conditions of Contract (GCC) and Special Conditions of Contract (SCC)
- (5) Views expressed or suggestions/submissions made by the parties and the recommendations of the CVO/IEM[#] in respect of the violation of this agreement, shall not be relied on or introduced as evidence in the arbitral or judicial proceedings (arising out of the arbitral proceedings) by the parties in connection with the disputes / differences arising out of the subject contract.

CVO shall be applicable for package wherein IEM are not identified in Section IFB/BDS of Condition of Contract, Volume-I. IEM shall be applicable for packages wherein IEM are identified in Section IFB/BDS of Contract, Volume-I.

Signature
(For & On behalf of DADASAHEB PHALKE
CHITRANAGARI (MFSCDCL))

Signature
(For & on behalf of Bidder
Partners of Joint Venture/
Contractor)

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

- (6) Should one-or several provisions of this agreement turn out to be invalid, the remainder of this agreement remains valid. In this case, the parties will strive to come to an agreement to their original intentions.

(Signature)
**(For & On behalf of Dadasaheb Phalke
Chitranagari (MFSCDCL))**

(Signature)
**(For & On behalf of Bidder/Partner
Of Joint Venture/Contractor)**

(Office Seal)

(Office Seal)

Name: -

Name:-

Designation:-

Designation:-

Witness 1:-

Witness 1:-

(Name & Address)

(Name & Address)

Witness 2:-

Witness 2:-

(Name & Address)

(Name & Address)

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

4.0

FORM B-1

PERCENTAGE RATE TENDER AND CONTRACT FOR WORK

DEPARTMENT : MFSCDCL, Goregaon East

NAME OF WORK: Repair and Upgradation of Studio 1, 2, 5, 7, 16 & Hospital Building at Dadasaheb Phalke Chitranagari, Goregaon (East), Mumbai – 400 065

GENERAL RULES AND DIRECTION FOR THE GUIDANCE OF CONTRACTORS.

- 1 All works proposed to be executed by contract shall be notified in a form of invitation to tender pasted on a board hung up in the office of the **Deputy Engineer (Civil), MFSCDCL, Goregaon** and signed by the **Deputy Engineer (Civil) MFSCDCL, Goregaon**. This form will state the work to be carried out as well as the date for submitting and opening tenders and the time allowed for carrying out the work, also the amount of earnest money to be deposited with the tender, and the amount of the security deposit to be deposited by the successful tenderer and the percentage, if any, to be deducted from bill. Copies of the specification, designs and drawings estimated rates, scheduled rates and any other documents required in connection with the work shall be signed by the Deputy Engineer (Civil) during office hours.
- 2 In the event of the tender being submitted by a firm it must be signed separately by each partner thereof, and in the event of the absence of any partner, it shall be signed on his behalf by a person holding a power of attorney authorizing him to do so.

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

- 2(A) the contractor shall pay online only along with the tender the sum of **Rs. 23,04,763/- (Rupees Twenty-Three Lakh Four Thousand Seven Hundred Sixty Three Only)** as and by way of earnest money by forwarding along with the tender the said amount of earnest money shall not carry any interest whatsoever.
- ii) In the event of his tender being accepted subject to the provisions of sub clause (iii) below, the said amount of earnest money shall be appropriated towards the amount of security deposit payable by him, under conditions of General conditions of contract.
- iii) If, after submitting the tender, the contractor withdraws his offer, or modifies the same or if after the acceptance of his tender the contractor fails or neglects to furnish the balance of security deposit without prejudice to any other right and powers of the Government, hereunder, or in law, government shall be entitled to forfeit the full amount of the earnest money deposited by him.
- iv) In the event of his tender not being accepted, the amount of earnest money deposited by the contractor, shall unless it is prior thereto forfeited under the provision of sub-clause(iii) above, be refunded to him on his passing receipt, therefore.
- 3 Receipts for payments made on account of any work , when executed by a firm shall also be signed by all the partners except where the contractors are described in their tender as a firm , in which case the receipt shall be signed in the name of the firm by one of the partners or by some other person having authority to give effectual receipts for the firm.
4. Any person who submits a tender shall fill- up the usual printed form stating at what percentage above or below the rates specified in scheduled 'B' (Memorandum showing items of work to be carried out) he is willing to undertake the work. Only one rate or

such percentage on all the Estimated rates/Schedule rates shall be named. Tenders which proposed any alteration in the work specified in the said form of invitation to tender, or in the time allowed for carrying out the work , or which contain any other conditions, of any sort will be liable to rejection. No printed form of tender shall include a tender for more than one work, but if contractor who wish to tender for two or more works ,they shall submit a separate tender for each . tender shall have the name and number of the work to which the refer, written outside the envelope.

5. The **MD/Joint MD MFSCDCL Goregaon, Mumbai** or his duly authorized assistant shall open tenders. In the event of a tender being accepted, the contractor shall, for the purpose of identification, sign copies of the specifications and other documents mentioned in Rule 1. In the event of tender being rejected, the Divisional Officer shall authorize the Treasury officer/Bank concerned to refund the amount of the earnest money deposited, to the contractor making the tender, on his giving a receipt for the return of the money.
6. The officer competent to dispose of the tenders shall have the right of rejecting all or any of the tenders.
7. No receipt for any payment, alleged to have been made by a contractor in regard to any matter relating to this tender or the contract, shall be valid and binding on Government unless it is signed by the Deputy Engineer-Civil
8. The memorandum of work to be tendered for and the schedule of materials to be supplied by the MFSCSCL and their rates shall be filled in and complete by the office of the Deputy Engineer (Civil) before the tender form is issued. If a form issued to an intending tenderer has not been so filled in and complete, he shall request the said office to have this done before he completes and delivers this tender.

- 9 All work shall be measured net by standard measure and according to the rules and customs of the MFSCDCL and without reference to any local custom.
10. Under no circumstances shall any contractor be entitled to claim enhanced rates for any item in this contract.
11. Every registered contractor should produce along with his tender certificates of registration as approved contractor in the appropriated class and renewal of such registration with date expiry. (Copies to attested by a Gazette Officers.)
12. All correction and additions or pasted slips should be initialed.
13. The measurements of work will be taken according to the usual methods in use in the Public Works Department and no alternative methods will be accepted. The Deputy Engineer (Civil)'s decision as to what is "the usual method in use in the Public Works Department" will be final.
14. In view of the difficult position regarding the availability of foreign exchange, no foreign exchange would be released by the Department for the purchase of plant and machinery required for the execution of the work contracted for.
15. The contractor will have to construct shed / go down for storing controlled and valuable materials brought by him at work site at contractor's cost.
16. The tendering contractor shall furnish a declaration along with the tender showing all works for which he has already entered into contract and the value of the work that remains to be executed in each case on the date of the submitting the tender(with certificate from the head of the office concerned).
- 17 The contractors shall also give a list of machinery in their possession and which they propose to use on the work in the form of statement No. II **on page No. 32** respectively.
18. Successful tenderer will have to produce to the satisfaction of the accepting authority a valid and current license issued in his favor under the provision of Contract Labor (Regulation and Abolition) Act 1970 before starting work, failing which acceptance of the tender will be liable for withdrawal and earnest money will be forfeited to Government.
19. The contractor shall comply with the provision of the Apprentices Act. 1961 and the rules and orders issued there under from time to time. If he fails to do so his failure will be breach of the contract. The contractor shall also be liable for any pecuniary liability arising on account of any violation by him of the provisions of the Act.

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

TENDER FOR WORKS

I / we hereby tender for the execution for the Governor of Maharashtra (here-in-before and hereinafter referred to as "Government") of the work specified in the underwritten memorandum within the time specified in such memorandum at **the rate quoted by me for Part A of Schedule B only at** specified place provided **online in envelope No. (E-2)** percent below/above the estimated rates entered in Schedule B (Memorandum showing items of work to be carried out) and in accordance in all respects with the specifications, designs, drawings, and instructions in writing referred to in Rule 1 hereof and in Clause 12 of the annexed conditions of contract and agree that when material for the work are provided by the Government such materials and the rates to be paid for them shall be as provided in Schedule 'A' hereto

Note: Tenderer should note that, Tenderer shall quote for the work portion of **Schedule B- Items only**. The accepted percentage rate shall be applicable for this work portion) only and not be applicable to any other part (i.e., Royalty & Testing charges) of Schedule B.

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

MEMORANDUM

a)	If several Sub-works are included, they should be detailed in a separate list.	1. a)	General Description		
b)	The amount of earnest money to be deposited shall be in accordance with the G.R. Dated 27/09/2018	(b)	Estimated Cost		Rs 46,09,52,581.-/-
		(c)	Earnest Money		Rs. 23,04,763 -/-
c)	This deposit shall be in accordance with the G.R. Dated 27/09/2018	(d)	Security Deposit		Rs. 46,09,526.00/-
		(i)	FDR (Not less than the amount of earnest money)		Rs. 23,04,763 -/-
		(ii)	To be deducted from current bills		Rs. 23,04,763 -/-
			Total Rs.		Rs. 46,09,526.00/-
d)	This percentage where no security deposit is taken will vary from 5% to 10 % according to the requirement of the case where security deposit is taken see note to clause I of conditions of contract.	(e)	Percentage, if any to be deducted from bills so as to make up the total amount required as security deposit by the time, the half the work as measured by the cost, is done		
	Security Deposit		01 (One) percent		
e)	Give Schedule where necessary showing dates by which the various items are to be completed	f)	Time allowed for the from date of written order to commence is of 12 (twelve) months (Including Monsoon season)		

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

2) I / We agree that this offer shall remain open for acceptance for a minimum period **of 120 days** from the date fixed for opening the "same" means envelope No.2 and thereafter until it is withdrawn by me/us by notice in writing duly addressed to the authority opening the tenders and sent by registered post A. D. or otherwise delivered at the office of such authority.

"Representing the earnest money is herewith forwarded. The amount of earnest money shall not bear interest and shall be liable to be forfeited to the Government should I/We fail to (i) abide by the stipulation to keep the offer open for the period mentioned above or (ii) Sign and complete the contract documents as required by the Engineer and furnish the security deposit as specified in item (d) of the memorandum contained in paragraph (i) above within the time limit laid down in Clause (1) of the annexed General conditions of contract. The amount of earnest money may be adjusted towards the security deposit or refunded to me/us if so desired by me/us in writing, unless the same or any part thereof has been forfeited as aforesaid.

4) Should this tender be accepted I / We here by agree to abide by and fulfil all the terms and provisions of the conditions of contract annexed hereto so far as applicable, and in default thereof to forfeit and pay to Govt. the sums of money mentioned in the said conditions.

Signature of Contractor before submission of tender	@Contractor.....Address.....
# Signature of witness to contractor's signature.	Date the the day of20 # (witness) Address (Occupation)

The above tender is hereby accepted by me for and on behalf of the Governor of Maharashtra.

.....

Deputy Engineer (Civil),
 Dadasaheb Phalke Chitranagari, Goregaon.

xxi) Signature of the officer by whom accepted

Dated Day of20.....

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

**Security
deposit**

CLAUSE 1: The person / persons whose tender may be accepted (hereafter called the contractor which expressions shall unless excluded by or repugnant to the context include his heirs executors, Administrators, and assigns) shall

(A) within 8 days (which may be extended by the Deputy Engineer (Civil), Superintending Engineer or the Chief Engineer concerned up to one month/two month / three months respectively. If the Deputy **Engineer (Civil)/Joint MD** thinks fit to do so) of the receipt by him of the notification of the acceptance of his tender deposit with the Deputy Engineer (Civil)(if deposited for more than 12 months) of sum sufficient which will make up the full security deposit specified in the tender or (B) Permit Government at the time of making any payment to him for work done under the contract to deduct such sum as will amount to * **One percent** of all moneys so payable such deduction to be held by Government by way of security deposit. Provided always that in the event of the contractor depositing a lump sum by way or security deposit as contemplated at (A) above then and in such case if the sum so deposited shall not amount to

* **One percent** of the total estimated cost of the work it shall be lawful for Government at the time of making any payment to the contractor for work done under the contract to make up the full amount of , * **One percent**, by deducting a sufficient sum from every such payment as last aforesaid until the full amount of the security deposit is made up. All compensation or other sums of money payable by the contractor to the Government under the terms of his contract may be deducted from, or paid by the sale of a sufficient part of his security deposit of from interest arising there from, or from any sums which may be due or may become due by Government to the contractor under any other contract or

transaction of any nature on any account whatsoever and in the event of his security deposit being reduced by reason of any such deduction or sale as aforesaid, the contractor shall within 10 days thereafter make good in cash or Government securities endorsed as aforesaid any sum or sums which may have been deducted from all raised by sale of his security deposit or any part thereof. The security deposit referred to when paid in cash, may at the cost of the depositor, be converted into the interest bearing securities provided that the depositor has express by desired this in writing. If the amount of the security deposit referred to when paid in cash may at the cost of the depositor, be converted into the interest bearing securities provided that the depositor has expressly desired this in a lump sum within the period specified at (A) above is not paid, the tender/contract already accepted shall be considered as cancelled and legal steps taken against the contractor for the recovery of the amounts. The amount of the Security deposit lodged by a contractor shall be refunded along with the payment of the final bill, if the date up to which the contractor has agreed to maintain the work in good order is over, if such date is not, over only **50** percent amount of security deposit shall be refunded along with the payment of the final bill. The amount of the security deposit retained by the Government shall be released after expiry of period up to which the contractor agreed to maintain the work in good order is over. In the event of the contractor failing or neglecting to complete rectification work within the period up to which the contractor has agreed to maintain the work in good order then, subject to provisions of clauses 17 and 20 hereof the amount of security deposit retained by Government shall be adjusted towards the excess cost incurred by the Department on rectification work.

**Compensation
For delay**

The amount retained toward defect liability period in pursuant to clause 20 shall not be in the form of Bank Guarantee.

Note : This will be the same percentage as that in the tender at (e)

CLAUSE – 2 : The time allowed for carrying out the Work as entered in the tender shall be strictly observed by the contractor and shall be reckoned from the date On which the order to commence work is given to the contractor. The work shall throughout the stipulated period of the contract be proceeded with all due diligence and the contractor shall pay compensation an amount equal to one percent or such similar amount as the **Joint MD** (whose decision in writing shall be final) may decide, of the amount of the estimate cost of the whole work as shown by the tendered for every day that the work remains uncompleted or unfinished after the proper dates. And further to ensure good progress during execution of the work, the contractor shall be bound, in all cases in which the time allowed for any work exceeds one month to complete. The contractor should complete the work as per phase period given below.

1/4 of the work in 1/4 of the time

1/2 of the work in 1/2 of the time

3/4 of the work in 3/4 of the time

full of the work in full of the time

[Full work will be completed in **12 (Twelve) Months** including monsoon.]

In the event of the contractor failing to comply with this, conditions he shall be liable to pay as compensation an amount equal to one percent or such smaller amount as the Superintending Engineer(whose decision in writing shall be final) may decide of the said estimated cost of the whole work for every day that the due quantity of work remains incomplete. Provided

**Action when
Wholesecurity
deposit is
Forfeited.**

always that the total amount of compensation to be paid under the provision of this clause shall not exceed 10 % of the estimated cost of the work as shown intender.

CLAUSE –3 : In any case in which under this any Clause or clauses of this contract the contractor shall have rendered himself liable to pay compensation Amounting to the whole of his security deposit (whether paid in one sum or deducted by installments) or in the case of abandonment of the work owing to serious illness or death of the contractor or any other cause to Deputy Engineer (Civil) on behalf of the Government of Maharashtra shall have power to adopt any of the following courses as he may deem best suited to the interest of Government.

a) To rescind the contract (for which rescission notice in writing to the contractor under the hand of the Deputy Engineer (Civil), shall conclusive evidence) and in the case the Security deposit of the contractor shall stand forfeited and be absolutely at the disposal of Government.

b) To carry out the work or any part of the work departmentally debiting the contractor with the cost of the work, expenditure incurred on tools and plant, and charges on additional supervisory staff including the cost of work charged establishment employed for getting the unexcited part of the work completed and crediting him with the value of the work done departmentally in all respects in the same manner and at the same rates as if it had been carried out by the contractor under the terms of his contract. The certificate of the Deputy Engineer (Civil) as to the costs and other allied expenses so incurred and as to the value of

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the work so done departmentally shall be final and conclusive against the contractor.

c) To order that the work of the contractor be measured up and to take such part thereof as shall be unexecuted out of his hands and t give it to another contractor to complete in which case all expenses incurred on advertisement for fixing a new contracting agency, additional supervisory staff including the cost of work charged establishment and the cost of the work executed by the new contract agency will be debited to the contractor and the work done or executed through the new contractor shall be credited to the contractor in all respects and in the same manner and at the same rates as if it had been carried out by the contractor under the terms of his contract. The certificate of the Deputy Engineer (Civil), as to all the cost of the work and other expenses incurred as aforesaid for or in getting the unexecuted work done by the new contractor and as to the value of the work so done shall be final and conclusive against the contractor.

In case the contract shall be rescinded under clause (a) above the contractor shall not be entitled to recover or be paid, any sum for work therefore actually performed by him under this contract unless and until the Deputy Engineer (Civil), shall have certified in writing the performance of such work and the amount payable to him in respect thereof and he shall only be entitled to be paid the amount so certified. In the event of either of the courses referred to in clause (b) or (c) being adopted and the cost of the work executed departmentally or through a new contractor and other allied expenses exceeding the value of such work credited to the contractors the amount of excess shall

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be deducted from any money due to the contractor by Government under the contract or otherwise. However or from his security deposit or the sale proceeds thereof provided however that the contractor shall have no claim against Government even if the certified value of the work done departmentally or through a new contractor exceeds the certified cost of such work and allied expenses, provided always that whichever of the three courses mentioned in clauses (a) (b) or (c) is adopted by the Deputy Engineer (Civil), the contractor shall have no claim to compensation for any loss sustained by him by reason of his having purchased or procured any materials, or entered into any engagements, or made any advances on account of or with a view of the execution of the work or the performance of the contract.

Action when the progress of any portion of the

CLAUSE – 4: If the progress of any particular portion Of the work is unsatisfactory the Deputy Engineer (Civil), Shall not withstanding that the general progress of the Work is in accordance with the conditions mentioned In clause 2 be entitled to take action under clause 3 (b) after giving the contractor 10 days' notice in writing. The contractor will have no claim for compensation for any loss sustained by him owing to such action.

Power to take possession of or require removal or sell contractor's plant.

CLAUSE – 5 : In any case in which any of the powers Conferred upon the Deputy Engineer (Civil), by clauses 3 And 4 hereof shall have become exercisable and the Same shall not have been exercised the non-exercise Thereof shall not constitute a waiver of any of the Conditions hereof and such powers shall not with Standing is exercisable in the event of any further case of default by the contractor for which under any clause or clauses hereof he is declared liable to pay compensation

**Contractor
remains liable to
pay
compensation if
action not taken
under clause 3&**

amounting to the whole of his security deposit and liability of the contractor for past and future compensation shall remain unaffected. In the event of the Deputy Engineer (Civil), taking action Under sub clause (a) or (c) or clause-3 he may, if he so desires, take possession of all or any tool and Plant, materials and stores in or upon the works or the site thereof or belonging to the contractor, or procured by him and intended to be used for the execution of the work or any part thereof paying or allowing for the same in account at the contract rates, or in the case of contract rates not being applicable at current market rates to be certified by Deputy Engineer (Civil), whose certificate there of shall be final. In the alternative, the Deputy Engineer (Civil), may, after giving notice in writing to the contractor of his clerk of the work, foreman or other authorized agent require him to remove such tools plant, materials or stores from the premises within a time to be specified in such notice, and in the event of the contractor failing to comply with any such requisition, the Deputy Engineer (Civil), may remove them at the contractor's expenses for sale them by auction or private sale on account of the contractor and at his risk in all respect and the certificate of the Deputy Engineer (Civil), as to the Expenses of any such removal and the amount of the proceeds and expenses of the proceeds and expenses of any such sale shall be final and conclusive against the contractor.

Extension of time

CLAUSE-6: If the contractor shall desire an extension of the time for completion of work on the ground of his having been unavoidably hindered in its execution or on any other ground he shall apply in writing to the Deputy Engineer (Civil), before the expiration of the period stipulated in the tender or before the expiration of 30

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days from the date on which he was hindered as aforesaid or on which the cause for asking for extension occurred whichever earlier ever and the Deputy Engineer (Civil), may with prior approval of the authority component to accept the tender if in his opinion, there are reasonable round for granting an extension. Grant such extension as he thinks necessary or proper. The decision of the Deputy Engineer (Civil), in this matter shall be final.

**Final
certificate**

CLAUSE-7: On the completion of the work the contractor shall be furnished with a certificate by the Deputy Engineer (Civil),(hereinafter called the Engineer- In charge) of such completion, but no such certificate Shall be given nor shall the work be considered to be complete until the contractor shall have removed from the premises on which the work shall have been executed, all scaffolding, surplus materials and rubbish, and shall have cleaned off, the dirt from all wood work, doors windows walls floors or other parts of any building in or upon which the work has been executed, or of which he may have until the work shall have been measured by the Engineer-in-charge or where the measurements have been taken by his subordinates until they have possession for the purpose of executing the works, not until the work shall have been measured to the Engineer in charge or where the measurement have been taken by his subordinates until they have received the approval of the Engineer-in-charge the said measurements being binding and conclusive against the contractor. If the contractor shall fail to comply with the requirements of his clause as to the removal of scaffolding surplus materials and rubbish and cleaning of the dirt on or before the date fixed for the completion of the work the Engineer-in- charge

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may at the expense of the contractor remove such scaffolding, surplus materials and rubble and dispose of the same as he thinks fit and clean off such dirt as aforesaid and the contractor shall forthwith pay the amount of all expenses so incurred but shall have no claim in respect of any such scaffolding or surplus materials as except for any sum actually realized by the sale thereof.

Payment on intermediate certificate to be regarded as advance.

CLAUSE-8: No payment shall be made for work, estimated to cost less than rupees one thousand, till after the whole of work shall have been completed and a certificate of completion given. But in the case of works estimated to cost more than rupees one thousand the contractor shall On submitting a monthly bill therefore be entitled to receive payment proportionate to the part of the work then approval and passed by Engineer-in- charge whose certificate of such approval on posing of the sum payable shall be final and conclusive against the Contractor. All such intermediate payments shall be regarded as payments by way of advance against the final payments only and not as payments for work actually done and completed and shall not preclude the Engineer-in-charge from requiring any bad, unsound imperfect or unskillful work to be removed or taken away and reconstruction or re- erected nor shall any such payment be considered as an admission of the due performance of the contractor or any part thereof in any respect or the accruing of any claim nor shall if conclude, determine or affect in any other way the powers of the Engineer-in-charge as to the final settlement and adjustment of the accounts or otherwise or in any other way vary or effect the contract. The final bill shall be submitted by the contractor within one month of the date fixed for the completion of the work, otherwise the Engineer-in-charge's certificate of the measurements and of the total amount payable for the work shall be final and binding on all parties

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Payment at reduced rates on account of item of work not accepted as completed to be at the discretion of the engineer-in-charge.

Bill to be submitted monthly.

CLAUSE-9: The rates for several items of works estimated to cost more than Rs.1000/- agreed to within shall be valid only when the item concerned is accepted as having been completed fully in accordance with the sanctioned specifications. In case where the items of work are not accepted as so completed the Engineer-in-charge may make payment on account of such items at such reduced rates as he may consider reasonable in the preparation of final or on account bills.

CLAUSE-10 : A bill shall be submitted by the contractor in each month on or before the date fixed by the Engineer-in-charge for all work executed in the previous month and the Engineer-in-charge shall take or cause to be taken the requisite measurement for the purpose of having the same verified and the claim so far as it is admissible, shall be adjusted, if possible within ten days from the presentation of the bill. If the contractor does not submit the bill within the time fixed as aforesaid, the Engineer-in-charge may depute a subordinate to measure up the said work in the presence of the contractor or his duly authorized agent whose counter signature to the measurement list shall be sufficient warrant and Engineer-in-charge may prepare a bill from such list which shall be binding on the contractor in all respects.

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Bill to be on the printed form.

CLAUSE-11: The contractor shall submit all bills on the printed forms to be had on application at the office of the Engineer-in-charge. The charges to be made in the bills shall always be entered at the rates specified in the tender or in the case of any extra work ordered in pursuance of these conditions and not mentioned or provided for in the tender at the rates hereinafter provided for such work.

Store supplied by government.

CLAUSE – 12 : If the specification or estimate of the work provides for the use of any special description of materials to be supplied from the store of the Dadasaheb Phalke Chitranagari (MFSCDCL) store or if it is required that the contractor shall use certain stores to be provided by the Engineer-in-charge (such material and stores and the prices to be charged therefore as hereinafter mentioned being so far as practicable for the convenience of the contractor but not so as in any way to control the meaning or effect of this contract specified in the schedule or memorandum annexed) the contractor shall be supplied with such materials and stores as may be required from time to time to be used by him for the purposes of the contract only and the value of the full quantity of the materials and stores so supplied shall be set off or deducted from any sums then due or thereafter to become due to the contractor under the contract, or otherwise from the security deposit or the proceeds of sale thereof. If the security deposit is held in Government Securities, the same or a sufficient portion thereof shall in

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**Work to be
executed in
accordance with
specifications
drawingorders etc**

that case be sold for all purpose. All materials supplied to the contractor shall remain the absolute property of the Government and shall on no account be removed from the site of the work and shall at all times be open to inspection by the Engineer-in-charge. Any such materials unused and in perfectly good condition at the time of completion or determination of the contract shall be returned to the Dadasaheb Phalke Chitranagari (MFSCDCL) store if the Engineer-in-charge so requires by a notice in writing given under his hand, but the contractor shall not be entitled to return any such materials except with consent of the Engineer- in-charge and he shall have no claim for compensation on account of any such material supplied to him as aforesaid but remaining unused by him or for any wastage in or damage to any such materials. **CLAUSE – 13 :** The contractor shall execute the whole and every part of the work in the most substantial and workman like manner and both as regards materials and in every other respect in strict accordance with specifications. The contractor shall also conform exactly, fully and faithfully to the designs drawing and instructions in writing relating to the work signed by the Engineer-in-charge and lodged in his office and to which the contractor shall be entitled to have access for the purpose of inspection at such office, or on the site of the work during office hours. The contractor will be entitled to receive three sets

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Alteration in specifications and designs not to invalidate contracts.

of contract drawings and working drawings as well as one certified copy of the accepted tender along with the work order free of cost. Further copies of the contract drawings and working drawings if required by him, shall be supplied at the rate of Rs. 300/- per set of contract drawings and Rs. 150/- per working drawings except where otherwise specified.

CLAUSE –14: The Engineer-in-charge shall have Power to make any alterations in or additions to the original specifications drawings, designs and instructions that may appear to him to be necessary or advisable during the progress of the work, and the contractor shall be bound to carry out the work in accordance with any instructions in this connection which may be given to him in writing signed by the Engineer-in- charge and such alteration shall not invalidate the contract, and any additional work , which the contractor may be directed to do in the manner above, specified as part of the work shall be carried out by the contractor on the same condition in all respects on which he agreed to do the main work, and at the same rates as are specified in the tender for the main work and if the additional and altered work includes any class of work for which no rate is specified in this contract, then such class of work shall be carried out at the rates entered in the schedule of rates of the Division or at the rates mutually agreed upon between the Engineer- in-charge

Rates for work not entered in estimate or schedule of rate of the district.

and the contractor whichever, are lower.

If the additional or altered work for which no rate is entered in the schedule of rates of the Division, is ordered to be carried out before the rates are agreed upon the contractor shall within seven days of the date of receipt by him of the order to carry out the work inform the Engineer-in-charge of the rate which it is his intention to charge for such class of work and if the Engineer-in-charge of the rate which it is his intention to charge for such class of work and if the Engineer-in-charge does not agree to this rate he shall be notice in writing be at liberty to cancel his order to carry out such class of work and arrange to carry it out in such manner as he may consider advisable provided always that if the contractor shall commence work or incur any expenditure in regard there to before the rates shall have been determined as lastly herein before the mentioned, then in such case he shall only be entitled to be paid in respect of the work carried to or expenditure incurred by him prior to date of the determination of the rate as aforesaid according to such rate or rates as shall be fixed by the Engineer-in-charge. In the event of accordance dispute, the decision of the Superintending Engineer of the Circle, will be final.

Extension of time in consequence of additions or alterations

Where, however, the work is to be executed according to the designs drawings and specifications recommended by the contractor.

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and accepted by the competent authority the alterations above referred to shall be within the scope of such designs, drawings and specifications appended to the tender. The time limit for the completion of the work shall be extended in the proportion that the increase in its cost occasioned by alterations or additions bears to the cost of the original contract work and the certificate of the Engineer-in-charge as to such proportion shall be conclusive.

No claim to any payment or Compensation for alteration in or restriction of work

CLAUSE-15 (1) : If at any time after the execution of the contract documents. The Engineer shall for any reason what-so-ever (other than default on the part of the contractor for which the Government is entitled to rescind the contract) desires that the whole or any part of the work specified in the tender should be suspended for any period or that the whole or part of the work should not be carried out at all he shall give to the contractor a notice in writing of such desire and upon the receipt of such notice the contractor shall forthwith suspend or stop the work wholly or in part as required, after having due regard to the appropriate stage at which the work should be stopped or suspended so as not to cause any damage or injury to the work already done or endanger the safety there of provided that the decision of the Engineer as to the stage at

which the work or any part of it could be or could have been safely stopped or suspended shall be final and conclusive against the contractor. The contractor shall have no claim to any payment or compensation whatsoever by reason of or in pursuance of any notice as aforesaid on account of any suspension, stoppage or curtailment except to the extent specified hereinafter.

(2) Where the total suspension of work ordered as aforesaid continued for a continuous period exceeding 90 days, the contractor shall be at liberty to withdraw from the contractual obligations under the contract so far as it pertains to the unexecuted part of the work by giving accordance 10 days prior notice in writing to the Engineer, within 30 days of the expiry of the said period of 90 days, of such intention and requiring the Engineer, to record the final measurement of the work already done and to pay the final bill. Upon given such notice, the contractor shall be deemed to have been discharged from his obligation to complete the remaining unexecuted work under his contract. On receipt of such notice the Engineer shall proceed to complete the measurement and make such payment as may be finally due to the contractor within a period of 90 days from the receipt of such notice in respect of the work already done by the contract. Such payment shall not in any manner prejudice the right of the contractor to any further compensation.

under the remaining provisions of this of this clause.

(3) Where the Engineer requires the contractor to suspend the work for accordance period in excess of 30 days at any time or 60 days in the aggregate, the contractor shall be entitled to apply to the Engineer within 30 days of the resumption of the work after such suspension for payment of compensation to the extent of pecuniary loss suffered by him in respect of working machinery rendered idle on the site or on account of his having, had to pay the salary or wages of labour engaged by him during the said period of suspension. Provided always that the contractor shall not be entitled to any claim in respect of any such working machinery, salary or wages for the 30 days whether consecutive or in the aggregate of such suspension or in respect of any suspension whatsoever occasioned by unsatisfactory work or any other default on his part. The decision of the Engineer in this regard shall be final and conclusive against the contractor.

(4) The event of

(i) Any total stoppage of work on notice from the Engineer under sub-clause(1), in that behalf,

(ii) Withdrawal by the contractor from the contractual obligation to complete the remaining unexecuted work under sub clause.

(2) on account of continued suspension of work for accordance period exceeding 90 days.

OR (iii) Curtailment in the quantity of item or items originally tendered on account of any alteration, omission or substitutions in the specifications drawings designs, or instructions under clause 14 where such curtailment exceeds 25% in quantity and the value of the quantity curtailed beyond 25% at the rates for the item specified in the tender is more than Rs. 5000/-

It shall be open to the contractor within 90 days from the service of (i) the notice of stoppage of work or (ii) the notice of withdrawal from the contractual obligations under the contract on account of the continued suspension of work or (iii) notice under clause 14 resulting in such curtailment to produce to the Engineer satisfactory documentary evidence that he had purchased or agreed to purchase material for use in the contracted work, before receipt by him of the notice of stoppage, suspension or curtailment and require the Government to take over on payment such material at the rates determined by the Engineer, Provided however, such rates shall in no case exceed the rates at which the same were acquired by the contractor. The Government shall thereafter take over the material so offered, provided the quantities offered are not in excess of the requirements of the unexecuted work as specified in the accepted tender and are of quality and specifications approved by the Engineer.

No claim to compensation on account of loss due to delays in supply of material by government.

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No claim to compensation on account of loss due to delays in supply of material by government

CLAUSE-15 (A) : The contractor shall not be entitled to claim any compensation from Government for the loss suffered by him on account of delay by Government in the supply of materials entered in Schedule –A where such delay is caused by :

(i) Difficulties relating to the supply of railway wagons.

(i) Force measure

(i) Act of God.

(iv) Act of enemies of the state or any other reasonable cause beyond the control of Government.

In the case of such delay in the supply of materials, Government shall grant such extension of time for the completion of the works as shall appear to the Deputy Engineer (Civil), to be reasonable in accordance with the circumstances of the case. The decision of the Deputy Engineer (Civil) on the extension of time shall be accepted on final by the contractor.

Time limit for unforeseen claims

CLAUSE –16 : Under no circumstances whatsoever shall the contractor be entitled to any compensation from Government on any account unless the contractor shall have submitted a claim in writing to the Engineer-in- charge within One month of the cause of such claim occurring.

Action and compensation payable in case of badworks

CLAUSE –17 : If any time before the security deposit or any part thereof is refunded, or any part thereof is refunded to the contractor it shall appear to the Engineer-in- charge

or his subordinate in charge of the work, that any work has been executed with unsound, imperfect or unskillful workmanship or with materials of inferior quality, or that any materials or articles provided by him for the execution of the work are unsound or of a quality inferior to that contracted for, or are otherwise not in accordance with contract it shall be lawful for the Engineer-in-charge to intimate this fact in writing to the contractor and then notwithstanding the fact that the work, materials or articles complained of may have been inadvertently passed, certified and paid for, the contractor shall be bound forthwith to rectify or remove and reconstruct the work so specified in whole or in part, as the case may require of if so required, shall remove the materials or articles so specified and provide other proper and suitable materials or articles at his own charge and cost, and in the event of his failing to do so within a period to be specified by the Engineer- in-charge in the written intimation aforesaid, the contractor shall be liable to pay compensation at the rate of 1% on the amount of the estimate for every day not exceeding 10 days during which the failure so continues and in the case of any such failure the Engineer-in-charge may rectify or remove, and re-execute the work or remove and replace the materials or articles complained of as the case may be at the risk and expense in all respects of the contractor should the Engineer-in-charge consider that any such inferior work or materials as described above

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Works is to be open to inspection.

Contractor or responsible agent to be present.

Notice to be given before work is covered up

may be accepted or made use of it shall be within his discretion to accept the same at such reduced rates as he may fix, therefore.

CLAUSE –18: All works or in course of execution or executed in pursuance of the contract shall at all times be open to the inspection and supervision of the Engineer-in-charge and his subordinates and the contractor shall at all time during the usual working hours, and at all other times at which reasonable notice of the intention of the Engineer-in-charge or his subordinate to visit the work shall have been given to the contractor, either himself be present to receive orders and instructions or have accordance responsible agent duly authorized in writing, present for that purpose. Orders given to the contractor's duly authorized agent shall be considered to have the same force and effect as if they had been given to the contractor himself.

CLAUSE- 19 : The contractor shall give not less than five days' notice in writing to the Engineer-in-charge or his subordinate in charge of the work before converting up or otherwise placing beyond the reach of measurements any work in order that the same may be measured and correct dimensions thereof taken before the same is so covered up or placed beyond the reach of measurement any work without the consent in writing of the Engineer-in-charge or his subordinate in charge of the work, and if any work shall be covered up or placed beyond the reach of measurements without such notice

Contractor liable for
damage done and
for impurities.

having been given or consent obtained the same shall be uncovered at the contractor's expenses and in default thereof no payment or allowance shall be made for work or for the materials with which the same was executed.

CLAUSE –20 : If during the period of If during the period of “ 10 (Ten) years for Box Cell &

60 months for B.T. Works from the date of completion as certified by the Engineer-in-charge pursuant to clause 7 of the contract or “**If during the period of “ 10 (Ten) years for Box Cell & 60 months for B.T. Works**” after commissioning the work, whichever is earlier in the opinion of the Deputy Engineer (Civil), the said work is defective in any manner whatsoever, the contractor shall forthwith on receipt of the notice in that behalf from the Deputy Engineer (Civil), duly commence execution and completely carry out at his cost in every respect all the work that may be necessary for rectifying and setting right the defects specified therein including dismantling and reconstruction of unsafe portion strictly in accordance with and in the manner prescribed and under the supervision of the Deputy Engineer (Civil) in the event of the contractor failing or neglecting to commence execution of the said rectifications work within the period prescribed therefore in the said notice, and / or to complete the same as aforesaid as required by the said notice, the Deputy Engineer (Civil), get the same executed and carried out departmentally or by any other agency at the risk on account and at the cost of the contractor. The contractor shall forthwith on demand pay to the Government the amount of such costs, charges and expenses

sustained or incurred by the Government of which the certificate of the Deputy Engineer (Civil), shall be final and binding on the contractor. Such cost, charges and expenses shall be deemed to be arrears of land revenue and in the event of the contractor failing or neglecting to pay the same on demand as aforesaid without prejudice to any other rights and remedies of the Government the same may be recovered from the contractor as arrears of land revenue. The Government shall also entitle to deduct the same from any amount which may then be payable, or which may thereafter become payable by the Government to the contractor either in respect of the said work or any other work whatsoever, or from the amount of the security deposit retained by Government.

**Contractor to supply
plant, ladders,
scaffolding etc.**

**And is liable for
damages arising
from non-provision
of light, fencing etc.**

CLAUSE- 21 : The contractor shall supply at his own cost all material (except such special materials, if any as may in accordance with the contract be supplied from the Dadasaheb Phalke Chitranagari (MFSCDCL)al Stores, plant, tools, appliances, implements, ladders, cordage, tackle, scaffolding and temporary works which may require for the proper execution of the work in the original altered or substituted form and whether included in the specifications or other documents forming part of the contract or referred to in these conditions or not and which may be necessary for the purpose of satisfying or complying with the requirements of the

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Engineer-in-charge as to any matter as to which under these conditions he is entitled to be satisfied, or which he is entitled to require together with the carriage therefore to and from the work the contractor shall also supply without charge the requisite number of persons with the means and materials necessary for the purpose of setting out works and counting, weighing and assisting in the measurement or examination at any time to time of the work or the materials. Failing which the same may be provided by the Engineer-in-charge at the expense of the contractor and the expenses may of the contractor and may be deducted from any money due to the contractor under the contract or from his security deposit or the proceeds of sale thereof, or of a sufficient portion thereof. The contractor shall provide all necessary fencing and lights required to protect the public from accident and shall also be bound to bear the expenses of defense every suit, action or other legal proceedings that may be brought by any person for injury sustained owing to neglect of the above precautions and to pay any damages and costs which may be awarded in any such suit action or proceedings to any such person or which may with consent of the contractor be paid for compromising any claim by any such person.

CLAUSE- 21 (A) : The contractor shall provide suitable scaffolds and working platforms, gangways and stairways and shall comply with the following regulations in connection there with

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- a) Suitable scaffold be provided for workman for workmen for all works that cannot be safely done from a by other means.
- b) A scaffold shall not be constructed, taken down or substantially altered except.
 - i) Under the supervision of accordance competent and responsible person and
 - ii) As far as possible by competent workers possessing adequate experience in this kind of work.
- c) All scaffold and appliances connected therewith, and ladders shall.
 - i) be of sound material.
 - ii) be of adequate strength having regard to the loads and strains to which they will be subjected and;
 - iii) be maintained in proper condition.
- d) Scaffolds shall be so constructed that no part thereof can be displaced in consequence of normal use.
- e) Scaffolds shall not be overloaded and so far as practicable the load shall be evenly distributed.
- f) Before installing lifting gear on scaffolds special precautions shall be taken to ensure the strength and stability of the scaffolds.
- g) Scaffolds shall be periodically inspected by a competent person.
- h) Before allowing a scaffold to be used by his workmen the contractor shall, whether the scaffold has been erected by his workmen or not taken step to ensure that it

complies fully with the regulation here in specified.

i) Working platforms, gangways and stairways shall:

(i) be so constructed that no part thereof can sag unduly or unequally.

(i) be so constructed and maintained, having regard to the prevailing conditions as to reduce as far as practicable risks of persons tripping or slipping and

(i) be kept free from any unnecessary obstruction.

j) In the case of working platform gangways working places and stairway at accordance height exceeding 3.00 Meters.

(i) Every working platform and every gangway shall be closely boarded unless other adequate measures are taken to ensure safety.

ii) Every working platform and gangway, shall have adequate width and

iii) Every working platform, gangway, working place and stairway shall be suitably fenced.

k) Every opening in the floor of accordance building or in a working platform shall except for the time and to the extent required to allow the excess of persons or the transport or shifting of material be provided with suitable means to prevent the fall of persons or material.

l) When persons are employed on a roof where there is a danger of falling from a

height exceeding 3.00-meter suitable precautions shall be taken to prevent the fall of persons or material.

m) Suitable precautions shall be taken to prevent persons being struck by articles, which might fall from scaffolds or another working place.

n) Safe means of access shall be provided to all working platforms and other working places.

CLAUSE -21(B) : The contractor shall comply with the following regulations as regards the Hoisting Appliances to be used by him:

a) Hoisting machines and tackle, including their attachments, anchorages and supports shall

i) be of good mechanical construction, sound materials and adequate strength and free from patent defect and

ii) be kept in good repair and in good working order.

b) Every rope used in hoisting or lowering materials, or a means of suspension shall be of suitable quality and adequate strength and free from patent defect.

c) Hoisting machines and tackle shall be examined and adequately tested after erection on the site and before use and be re-examined in position at intervals to be prescribed by the Government.

d) Every chain ring, hook shackle swivel and pulley block used in hoisting or

lowering materials or as a means of suspension shall be periodically examined.

e) Every crane driver or hoisting appliance operator shall be properly qualified.

f) No persons who are below the age of 21 years shall be in control of any hoisting machine, including any scaffold which, or give signals to the operator.

g) In the case of every hoisting machine and of every chain, ring, hook, shackle, swivel pulley block used in hoisting or lowering or as a means of suspension, the safe working load shall be ascertained by adequate means.

h) Every hoisting machine and all the gear referred to in the preceding regulation shall be plainly marked with the safe working load.

i) In the case of a hoisting machine having variable safe working load, each safe working load and the conditions under which it is applicable, shall be clearly indicated.

j) No part of any hoisting machine or of any gear referred to in regulation (s) above shall be loaded beyond the safe working load except for the purpose of testing.

k) Motors, gearing transmissions, electric wiring, and other dangerous part of hoisting appliances shall be provided with efficient safeguards.

l) Hoisting appliances shall be provided with such means as will reduce to

accordance minimum the risk of the accidental descent of the load.

m) Adequate precautions shall be taken to reduce to a minimum the risk of any part of accordance suspended load becoming accidentally displaced.

**Measure for
prevention offire**

CLAUSE –22 : The contractor shall not set fire to any standing jungle, Trees, brushwood or grass without a written permit from the Deputy Engineer (Civil). When such permit is given and also in all cases when destroying cut or dug up trees' brushwood, grass etc. by fire, the contractor shall take necessary measures to prevent such fire spreading to or otherwise damaging surrounding property. The contractor shall make his own arrangements for drinking water for the labour employed by him.

**Liability of contractor
for any damage done
in or outside work
area**

CLAUSE –23: Compensation for all damages done Intentionally or un-intentionally by contractor's Labor whether in or beyond the limits of Government property including any damage caused by the spreading of fire mentioned in clause 22 shall be estimated by the Engineer-in-charge or such other officer as he may appoint and the estimates of the Engineer- in-charge subject to the decision of the Superintending Engineer on appeal shall be final and the contractor shall be bound to pay the amount of the assessed compensation on demand, failing which the same will be recovered from the contractor as damages in

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the man prescribed in clause 1 or deducted by the Engineer-in-charge from any sums that may be due or become due from Government to the contractor under this contract or otherwise. The contractor shall bear the expenses of defending any action or other legal proceedings that may be brought by any person for injury sustained by him owing to neglect of precautions to prevent the spread of the fire and he shall pay any damages and cost that may be awarded by the court in consequence.

Employment of female labour

CLAUSE -24 : The employment of female laborers on works in neighborhood of soldiers barracks should be avoided as far as far as possible.

Work on sunday

CLAUSE -25 : No work shall be done on a Sunday without the sanction in writing of the Engineer-in-charge.

Work not to be sublet.

CLAUSE -26 : The contract shall not be assigned or sublet without the Written approval of the Engineer-in-charge and if the contractor shall assign or sublet his contract or attempt so to do, become insolvent or commence any proceedings to get himself adjudicated an insolvent or make any composition with his creditors or attempt so to do or if bribe, gratuity, gift, loan perquisite, reward or advantage perquisite, or otherwise shall either directly or indirectly be given promised or offered by the contractor or any of his servants or agents to any public officer or person in the employ of Government in any way relating to

Contract may be rescinded, and security deposit forfeited for subletting it without approval or for bribing a public officer or if contractor becomes insolvent.

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his office or employment, or if any such officer or person shall become in any way directly or indirectly interested in the contract the Engineer-in-charge may there upon notice in writing rescind the contract and the security deposit of contractor shall there upon stand forfeited and be absolutely at the disposal of Government and the same consequences shall insure as if the contract had been rescinded under clause 3 hereof and in addition the contractor shall not be entitled to recover or be paid for any work therefore contract.

Sum payable by way of compensation to be considered as reasonable compensation without reference to actual loss.

CLAUSE- 27 : All sums payable by a contractor By way of compensation under any of this conditions shall be considered as a reasonable compensation to be applied to the use of Government without reference to the actual loss or damage sustained, and whether any damage has or has not been sustained.

Changes in the constitution of firm to be notified.

CLAUSE –28 : In the case of tender by partners any change in the constitution of a firm shall be forthwith notified by the contractor to the Engineer in charge for his information.

Direction & control of the superintending engineer.

CLAUSE – 29 : All works to be executed Engineer under the contractor Shall be executed under the direction and subject to the approval in all respects of the superintending Engineer, for the time being, who shall be entitled to direct at what point or points and in what manner they are to be.

Direction & control of the superintending engineer.

commenced and from time to time carried on.

CLAUSE – 30 (1) : Except where otherwise specified in the contract and subject to the

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powers delegated to him by Government under the code rules then in force. The decision of the Superintending Engineer of the Circle for the time being shall be final, conclusive and binding on all parties to the contract upon all questions relating to the meaning of the specifications designs, drawings and instructions herein before mentioned and as to the quality of workmanship or materials used on the work, or as to any other question, claim, right, matter or things whatsoever, if any way arising out of or relating to the contracts, designs, drawings specifications, estimates, instructions orders, or other conditions or otherwise concerning the works, or the execution or failure to execute the same whether arising during the progress of the work or after the completion or abandonment thereof.

CLAUSE-30(2) : The contractor may within 30 days of receipt by him of any order passed by the Superintending Engineer of the circle as aforesaid appeal against it to the Chief Engineer concerned with the contract, work or project provided that.

- a) The accepted value of the contract exceeds Rs. 10 Lacs. (Rs. Ten lakh)
- b) Amount of claim is not less than Rs. 1.00 lakh (Rupees One Lakh.)

CLAUSE- 30(3) : If the contractor is not satisfied with the order passed by the Chief Engineer as aforesaid the contractor may, within thirty days of receipt by him of any

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Store of European or American manufacture to be obtained from government.

such order, appeal against it to the concern Superintending Engineer who if convinced that prima facie the contractor claim rejected by Superintending Engineer is not frivolous and that there is some substance in the claim of the contractor as would merit a detailed examination and decision by Standing Committee. Shall put up to the Standing Committee at Government level for suitable decisions.

CLAUSE -31 : The contractor shall obtain from the Public Works Department stores, all stores and articles of European or American manufacture which may be required for the work of any part thereof or in making up any article required there- fore or in connection therewith unless he has obtained permission in writing from the Engineer in charge to obtain such stores and articles elsewhere. The value of such stores and articles as may be supplied to the contractor by the Engineer in charge will be debited to the contractor in his account at the rate shown in the schedule, in form- A attached to the contract and if they are not entered in the said schedule, they shall be debited to him at cost price which for the purpose of this contract shall include the cost of carriage and all other expenses whatsoever which shall have been incurred in obtaining delivery of the same at the stores aforesaid.

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Lump – sums in estimate

CLAUSE- 32 : When the estimate on which accordance tender is made includes lumpsums in respect of parts of the work the contractor shall be entitled to payment in respect of the items of works involved or the part of the work in question at the same rates as are payable under this contract for each item, or if the part of the work in question is not in the opinion of the Engineer in charge capable of measurement, the Engineer in charge may at his discretion pay the lump sum amount entered in the estimate and the certificate in writing of the Engineer in charge shall be final and conclusive against the contractor with regard to any sum or sums payable to him under the provisions of this clause.

Action where no specification

CLAUSE- 33 :

In the case of any class of work for which there is no such specifications as is mentioned in rule 1 such work shall be carried out in accordance with the divisional specifications and in the event of there being no divisional specification then in such case the work shall be carried out in all respects in accordance with the instructions and requirements of the Engineer in charge.

Definition of work

CLAUSE- 34 : The expression “ work” or “works” where used in these conditions shall unless there be something in the subject or context repugnant to such construction be constructed to mean the work

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Contractors' percentage whether applied to net or gross amount of bill

or worked contracted to be executed under or in virtue of the contract whether temporary or permanent and whether original altered, substituted, or additional.

CLAUSE- 35 : The percentage referred to in the tender shall be deducted from/added to the gross amount of the bill before deducting the value of any stock issued.

CLAUSE- 36 : All quarry fees, royalties, octroi dues and ground rent, for stacking materials, if any, should be paid by the contractor.

Compensation under the workmen's compensation act

CLAUSE- 37: The contractor shall be responsible for and shall pay compensation to his workmen payable under the workmen's compensation Act 1923 (viii th of 1923) (hereinafter called the said act) for injuries caused to the workmen, if such compensation is payable/ paid by the Government as principal under subsection (i) of section 12 of the said act on behalf of the contractor it shall be recoverable by Government from the contractor under subsection (2) of the said section. Such compensation shall be recovered in the manner laid down in clause 1 above.

CLAUSE- 37(A) : The contractor shall be responsible for and shall pay the expenses of providing medical aid to any workmen who may suffer a bodily injury as a result of an accident. If such expenses are incurred by Government, the same shall be recoverable from the contractor forthwith and be deducted

without prejudice to any other remedy of Government from any amount due or that may become due to the contractor.

CLAUSE- 37(B) : The contractor shall provide all necessary personnel safety equipment and first aid apparatus available for the use of the persons employed on the site, and shall maintain the same condition suitable for immediate use at any time and shall comply with the following regulations in connection therewith : a) The worker shall be required to use the equipment so provided by the contractor and the contractor shall take adequate steps to ensure proper use of the equipment by those concerned. (b) When work is carried on in proximity to any place where there is a risk of drowning all necessary equipment shall be provided and kept ready for use and all necessary steps shall be taken for the prompt rescue of any person in danger. (c) Adequate provision shall be made for prompt first aid treatment of all injuries likely to be sustained during the course of the work.

CLAUSE- 37(c) : The contractor shall duly comply with the provisions of “ The Apprentices Act 1961 (III of 1961). The rules made there under and the orders that may be issued from time to time under the said Act and the said rules and on his failure or neglect to do so, he shall be subject to all the liabilities and penalties provided by the said act and said rules.”

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Claim for quantities entered in the tender or estimate.

CLAUSE- 38 (1) : Quantities in respect of the several items shown in the tender are approximate no revision in the tendered rate shall be permitted in respect of any of the items so long as subject to any special provision contained in the specification prescribing a different percentage of permissible variation, the quantities of the items does not exceed the tender quantity by more than 25% and so long as the value of the excess quantity beyond this limit, at the rate of the item specified in the tender is not more than Rs.5000/-

(2) The contractor shall if ordered in writing by the Engineer so to do also carry out any quantities in excess of the limit mentioned in sub-clause (1) here of on the same conditions as and in accordance with specifications in the tender and at the rates.

(i) derived from the rates entered in the current schedule of rates and in the absence of such rates (ii) at the rate prevailing in the marked the and rates being increased or decreased as the case may be by the percentage which the total tendered amount bears to the estimated cost of the work as put tender. based upon the schedule of rates applicable to the year in which the tenders were invited. ***(For the purpose of operation of this clause, this cost shall be taken, as arrived at S.S.R for 2022-23 respective District)***

**Employment of
famine labour etc.**

**Claim for compensation
for delay in starting
work.**

**Claim for
compensation for
delay in execution.**

**Entering upon or
commencing any
portion of work.**

(3) Claims arising out of reduction in the tendered quantity of any item beyond 25% will be governed by the provision of clause 15 only when the amount of such reduction beyond 25% at the rate of the item specified in the tender is more than Rs. 5000/- **CLAUSE-39 :** The contractor shall employ any famine convict or other labor of a particular kind or class, if ordered in writing to do so by the Engineer in charge.

CLAUSE- 40 : No compensation shall be allowed for any delay in the execution of the work on account of acquisition of land or in the case of clearance works on account of any delay in according to sanction to estimates.

CLAUSE – 41: No compensation shall be allowed for any delay in the execution of the work on account of water standing in borrow pits or compartments. The rates are inclusive of hard or cracked soil excavation in mud, sub- Soil water or water standing in borrow pits and no claim for an extra rate shall be entertained

unless otherwise expressly specified.

CLAUSE- 42 : The contractor shall not enter upon or commence any portion of work except with the written authority and instruction of the Engineer in charge or of his subordinate in Charge of the work. Failing such authority, the contractor shall have no claim to ask for measurements of or payment for work.

Minimum age of person employed the employment of donkeys and / or other animals and the payments of fair wages.

CLAUSE- 43 :

- i) No contractor shall employ any person who is under the age of 18 years.
- ii) No contractor shall employ donkeys or other animals with breaching of string or thin rope. The breaching must be at least 7.50 m. wide and should be of tape (Newar).
- iii) No animal suffering from sores; lameness or emaciation or which is immature shall be employed on the work.
- iv) The Engineer in charge or his Agent is authorized to remove from the work any person or animal found working which does not satisfy these conditions and no responsibility shall be accepted by Government for any delay caused in the completion of the work by such removal.
- v) The contractor shall pay fair and reasonable wages to the workmen employed by him in the contract undertaken by him. In the event of any dispute arising between the contractor and his workmen on the grounds that the wages paid are not fair and reasonable, the dispute shall be referred without delay to the Deputy Engineer (Civil), who shall decide the same. The decision of the Deputy Engineer (Civil), shall be conclusive and binding on the contract regarding the payment to be made by Government at the sanctioned tender rates.
- vi) The contractor shall provide drinking water facilities to the workers. Similar amenities

shall be provided to the workers engaged on large work in urban areas.

vii) The contractor should take precaution against accidents, which take place on account of labour using loose garments while working near machinery.

Method of payment

CLAUSE- 44 : Payment to contractor shall be made by cheque drawn on any treasury within the division convenient to them, provided the amounts exceed Rs. 10. Amount not exceeding Rs. 10/- will be paid in cash.

Acceptance of conditions compulsory before tendering for work

CLAUSE- 45 : Any contractor who does not accept these conditions shall not be allowed to tender for works.

Employment of scarcity labor

CLAUSE- 46 : If Government declares a state of scarcity or famine to exist in any village situated within 16 km. of the work, the contractor shall employ upon Such parts of the work, as are suitable for unskilled labor any person certified to him by the Deputy Engineer (Civil), or by any person to whom the Deputy Engineer (Civil), may have delegated this duty in writing to be in need of relief and shall be bound to pay to such persons wages not below the minimum which Government may have fixed in this behalf. Any disputes which may arise in connection with the implementation of this clause shall be decided by the Deputy Engineer (Civil), whose decision shall be final and binding on the contractor.

CLAUSE- 47 : The price quoted by the contractor shall not in any case exceed the control price, if any, fixed by Government or reasonable price which it is permissible for him to charge a private purchaser for the same class and description the controlled price or price permissible under Hoarding and Profiteering Ordinance, 1943 as amended from time to time. If the price quoted exceeds the controlled price or the price permissible under Hoarding and profiteering ordinance, the contractor will specifically mention this fact in his tender along with the reasons for quoting such higher prices. The purchaser at his discretion will in such case exercises the right of revising the price at any stage so as to conform with the controlled price on the permissible under the Hoarding and Profiteering Prevention Ordinance. This discretion will be exercised without prejudice to any other action that may be taken against the contractor.

CLAUSE- 47 (A) : The tender rates are inclusive of all taxes, rates cesses except GST

CLAUSE- 48 : The rates to be quoted by the contractor must be exclusive of GST.

CLAUSE- 49 : In case of materials that remain surplus with the contractor from those issued for the work contracted for the date of ascertainment of the materials being surplus will be taken as the date of sale for the purpose of tax and the tax will be recovered on such sale.

CLAUSE- 49(A) : Contractor should note that recovery at penal rate of twice the issue rates will

be affected if the contractor does not return surplus material. tax will be recovered from them. **CLAUSE- 50** : The contractor shall employ the unskilled labour to be employed by him on the said work only from locally available labors and shall give preference to those persons enrolled under Government Employment and self-Employment Department's Scheme. Provided, however, that if the required unskilled labors are not available locally, the contractor shall in the first instance employ such number of persons as is available and thereafter may with precious permission, in writing of the Deputy Engineer (Civil)- in-charge of the side work, obtain the rest of his requirement of unskilled the labour from outside the above scheme.

CLAUSE- 51 : Wages to be paid to the skilled and unskilled labors engaged by the contractor. The contractor shall pay the labors skilled and unskilled according to the wages prescribed by the Minimum Wages Act 1948 applicable to the area in which the work of the contractor is located.

CLAUSE- 52 : All amounts whatsoever which the contractor is liable to pay to the Government in connection with the execution of the work including the amount payable in respect of (i) materials and / or stores supplied / issued hereunder by the Government to the contractor (ii) hire charges in respect of heavy plant, machinery and equipment given on hire by the Government to the contractor for execution by him of the work and / or on which to advances have been given by the Government to the contractor shall be deemed to be Arrears of Land Revenue and The Government may without prejudice to any other

rights and remedies of the Government recover the same from the contractor as arrears of land revenue.

CLAUSE- 53 : The contractor shall duly comply with all the provision of the contract (Labor Regulation and Abolition Act 1970.) (37 of 1970) and the Maharashtra contract Labor Regulation and Abolition Rules 1971 as amended from time to time and all other relevant status and statutory provision concerning payment of wages particularly to workmen employed by the contractor and working on the site of the work in particular the contractor shall pay wages to each worker employed by him on the site of the work at the rates prescribed under the Maharashtra Contract Labor (Regulation And Abolition) Rules 1971. If the contractor fails or neglects to pay wages at the said rates or makes short thereof less paid by the contractor, as the case may be the amount so paid by the Government to such works shall be deemed to be an arrears of land revenue and the Government shall be entitled to recover the same as such from the contractor or deduct the same from the amount payable by the Government to the contractor here under or from any other amounts payable to him by the Government.

CLAUSE- 54 : The contractor shall engage apprentices such as bricks layers, carpenters, wireman, plumber as well as blacksmith, as recommended by the state Apprenticeship Advisor Director of Technical Education, Dhobi Talao, Bombay-1 on the construction work.

CLAUSE- 55(A) : The antimalarial and other health measure shall be as directed by the joint.

Director (Malaria and Filarial) of Health Services, Pune.

(B) Contractor shall see that mosquito genic conditions are not created so as to keep vector populations to the minimum level.

(C) Contractor shall carry out anti malaria measures in area as per guidelines prescribed under national malaria eradication program and as directed by the Joint Director (M& F) of Health Services, Pune.

(D) In case of default in carrying out prescribed antimalaria measure resulting increasing in malaria incidence contractor shall be liable to pay to Government the amount spent by Government on antimalaria measures to control the situation in addition to fine.

(E) **AUTHORITIES** :The contractor shall make sufficient arrangement for draining away the sullage water as well as water coming from the bathing and washing places and shall dispose of this water in such a way as not to cause any nuisance. He shall also keep premises clean by employing sufficient number of sweepers. The contractor shall comply with all rule's regulation, by laws and direction given time to time by any local or public authority in connection with this work and shall pay fees or charges with are livable on him without any extra cost to Government.

5.0

ADDITIONAL GENERAL CONDITIONS AND SPECIFICATIONS

1. These are to apply as additional specifications and conditions unless otherwise already provided for contradictorily elsewhere in this contract.

2. CONTRACTOR TO STUDY SITE CONDITIONS: -

The contractor shall be deemed to have carefully examined the work and site conditions including labor, the general and the special conditions, specifications, schedules and drawings and shall be deemed to have visited the site of the work and to have fully informed himself regarding the focal conditions and carried out his own investigation to arrive at rates quoted in the tender. In this regard, he will be given necessary information to the best of the knowledge of Department but without any guarantee about it.

If he shall have any doubt as to the meaning of any portion of these general conditions or the special conditions, or the scope of work or the specifications and drawings or any other matter concerning the contract, he shall in good time, before submitting his tender, set forth the particulars thereof and submit them to **Deputy Engineer (Civil), Dadasaheb Phalke Chitranagari, Goregaon** in writing in order that such doubts may be clarified authoritatively before tendering. Once a tender is submitted, the matter will be decided according to tender conditions in the absence of such authentic pre-clarification.

2(A). The Bidder/ Contractor Shall be liable solely for action under Indian Penal code (IPC) for Submission of any false / fraudulent paper/information submitted in envelop No. 1 of bid Document. The contractor shall also be liable solely for action under IPC for submission of any false information, false bill of purchases supporting proof of purchase, proof of testing submitted by his staff, subletting company or by himself during and after contract period-till final bill. The undertaking for this effect shall be submitted by bidder in Annexure-A enclosed herewith.

2(B) Contractor to take all due care to avoid any sort of damage to existing flooring while executing the job.

2(C) The tenderer should note that he has to provide adequate barricading, during the various activities concern till the completion of the work at his own cost.

2(D) Noise levels of all noisy machinery shall be kept within the authorized decibels.

2(E) The contractor, his staff & labours should comply fully the safety norms issued by the government for COVID. The labours, staff present at site & contractor's any representative with the owner of the company should follow the safety instructions like wearing of mask, to maintain safe distance and sanitization etc

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3. DECELERATION OF THE CONTRACTOR

The contractor should sign the declaration form on Page 190.

4. INDEMNITY :-

The contractor shall indemnify the Government against all actions, suits, claims and demands brought or made against in respect of anything done or committed to be done by the Contractor in execution of or in connection with the work of this contract and against any loss or damage to the Government in consequence of any action or suit being brought against the contractor for anything done or committed to be done in the execution of the works of this contract.

5. DEFINITIONS :

Unless excluded by or repugnant to the context.

- a) The expression “**Government**” as used in the tender papers shall mean the Dadasaheb Phalke Chitranagari (MFSCDCL)
- b) The expression “**MD**” as used anywhere in the tender papers shall mean Managing Director of the MFSCDCL
- c) The expression “**Joint MD**” as used in the tender papers shall mean an Joint Managing Director of MFSCDCL (by whatever designation he may be known) under whose control the work lies for the time being.
- d) The expression “**Employee**” used in the tender papers shall mean the party who will employ the contractor to carry out the works.
- e) The expression “**Architect/Consultant/PMC**” as used in tender paper shall mean the Authorized Technical/Planning/Design/Execution agency of MFSCDCL. for this work at Goregaon Mumbai.

- f) The expression “**Contractor**” as used in the tender papers shall mean the deed of contract together with of its original accompaniment and those later.
- g) The expression “**Plant**” as used in the tender papers shall means every machine necessary or considered necessary by the Engineer to execute, construct complete and maintain the works and used in altered, modified substituted and additional works ordered in the time and in the manner here in provided and all temporary materials and special and other articles of appliances of every sort, kind and description whatsoever intended or used hereof.
- h) “**Drawing**” shall mean the drawings referred to in the specifications and any modifications of such drawings approved in writing by Engineer and such other drawings as may from time to time be furnished or approved in writing by the Engineer.
- i) “Engineer’s representative” shall mean, and assistant of the Engineer notified in writing to the contractor by the Engineer.
- j) “Provisional items” shall mean items for which approximate quantities have been included in the tender documents.
- k) The “Site” shall mean the lands and/ or other places, on, under, in or through which the work is to be executed under the contract including any other lands or places which may be allotted by Government or used or the purpose of contract.
- l) The “ Work ” shall mean the works to be executed in accordance with the Contract or part(S) thereof as the case may be and shall include all extra, additional, altered or substituted works a required for performance of the contract.
- m) The “Contract sum” shall mean the sum for which the tender is accepted
- n) The “Accepting Authority” shall mean the officer competent to accept the tender.
- o) The “Day” shall mean a day of 24 hours from midnight to midnight irrespective of the number of hours worked in any day.

- p) "Temporary Works" shall mean all temporary works of every kind required in or about the execution, completion, or maintenance of the works.
- q) "Urgent Works" shall mean any measure which, in the opinion of the engineer-in-charge become necessary during the progress of the works to obviate any risk or accident or failure or which become necessary for security of the work or the persons working thereon.

Where the context so requires, words importing the singular only also include the plural and vice-versa.

Heading and marginal notes, if any to the general conditions shall not be Deemed to form part thereof or to be taken into consideration in the interpretation or construction thereof the contract.

Wherever there is mention of "Schedule of rates" of the Division or simply D.S.R. in this tender, it will be taken to mean as "the schedule of the rate of the Division in whose jurisdiction the work lies.

6. ERRORS, OMISSIONS AND DISCREPANCIES:

- a) In case of errors, omissions and / or disagreement between written and scaled dimensions in the drawing or between the drawings and specifications etc. the following order of preference shall apply.
 - i) Between actual scaled and written dimensions or descriptions on a drawing the latter shall be adopted.
 - ii) Between the written or shown description of dimensions in the drawing and the corresponding one in the specifications, latter shall apply.
 - iii) Between the quantities shown in the schedule of quantities and those arrived at from the drawings, the latter shall be preferred.
 - iv) Between the written description of the item in the scheduled of quantities and the detailed description in the specifications of the same items, the latter shall be adopted.
- b) In case of discrepancy between percentage rate quoted in figures and words, the lowest of the two will be considered for acceptance of the tender.

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- c) In all cases of omissions and / or doubts or discrepancies in the dimensions or description of any item or specifications, a reference shall be made to the **Deputy Engineer (Civil) Dadasaheb Phalke Chitranagari, Goregaon.** whose elucidation, elaboration or decision shall be considered as authentic. The contractor shall be held responsible for any errors that may occur in the work through lack of such reference and precaution.
- d) The special provision in detailed specifications and wording of any item shall gain precedence over corresponding contradictory provision (if any) in the standard specifications of Dadasaheb Phalke Chitranagari (MFSCDCL) Handbook where reference to such specifications is given without reproducing the details in contract.

7(a) METHODOLOGY OF CONSTRUCTION

Contractor shall furnish at least 15 days in advance, his programme of commencement of items of work, the details of actual methods that would be adopted by the contractor for the execution of various items of work such as well sinking cast-in-situ, superstructure for bridge work, earth work, W.B.M. black topping items etc. for road works supported by necessary drawings and sketch including those of the plant and machinery that would be used, their locations, arrangement for conveying and handling materials etc. and obtain prior approval of the Engineer-in-charge well in advance of starting of such items of work. The Engineer-in-charge reserves the right to suggest modifications or make completion in the method proposed by the contractor, whether accepted previously or not, at any stage of work to obtain the desired accuracy, quality and progress of the work which shall be binding on the contractor and no claim on account of such change in method of execution will be entertained by Government so long as specification of the items remain unaltered. The sole responsibility for the safety and adequacy of the methods adopted by the contractor will however rest on the contractor irrespective of any approval given by the Engineer.

In case of slippage from the approved work program at any stage the contractor shall furnish revised program to make up the

slippage within the stipulated time schedule and obtain the approval of the Engineer to the revised program.

7-b) CONSTRUCTION EQUIPMENT

The contractor shall be required to give a trial run of the equipment's for establishing their capacity to achieve the laid down specifications and tolerance to the satisfaction of the Engineer before commencement of the work. All equipment provided shall be proven efficiency and shall be operated and maintained at all times, in a manner acceptable to the Engineer and no equipment or personal will be removed from situ without permission of the Engineer.

7-c) PROGRESS SCHEDULE

- i) The contractor shall furnish within the period of one month of the order to start the work, the program of work in CPM/PERT charts in quadruplicate indicating the date of actual start, the monthly progress expected to be achieved and the anticipated completion date of each major item of work to be done by him, also indicating dates of procurement and setting up to materials, plant and machinery. The schedule is to be such as is practicable of achievement towards the completion of the whole work in the time limit, the particular items, if any on the due dates specified in the contract and shall have the approval of the Engineer in charge. No revised schedule shall be operative without such acceptance in writing. The Engineer is further empowered to ask for more detailed schedule or schedules say. Week by week for any item or items, in case of urgency of work as will be directed by him and the contractor shall supply the same as and when asked for.
- ii) The contractor shall furnish sufficient plant, equipment and labour as may be necessary to maintain the progress schedule. The working and shift hours restricted to one shift a day for operations to be done under the Government supervision shall be such as may be approved by the Engineer-in-charge. They shall not be varied without the prior approval of the Engineer. Night work requiring supervision shall be such as may be approved by the Engineer-in-charge. They shall not be varied without the prior approval of the Engineer, Night work requiring supervision shall not be permitted except when specifically allowed by Engineer on each item if requested by

contractor. The contractor shall provide necessary lighting arrangements etc. for night work as directed by Engineer without extra cost to Government.

- iii) Further the contractor shall submit the progress report of work in prescribed forms and charts etc. at periodical intervals as may be specified by the Engineer-in-charge. Schedule shall be in form of progress charts, forms progress statement and /or reports as may be approved by the Engineer.
- iv) The contractor shall maintain proforma, charts, details (regarding machinery, equipment, labor, materials, personnel etc.) as may be specified by the Engineer and submit periodical returns thereof as may be specified by the Engineer in charge.

8. AGENTS AND WORK ORDER BOOK

The contractor shall himself engage an authorized all – time agent on the work capable of managing and guiding the work and understanding the specifications and contract conditions. A qualified and experienced Engineer shall be provided by the contractor as his agent for technical Matters in case the Engineer-in-charge considers this as essential for the work and so directs the contractor. He will take orders as will be given by the Deputy Engineer (Civil), or his representative and shall be responsible for carrying them out. This agent shall not be changed without prior intimation of the Deputy Engineer (Civil), and his representative on the worksite.

The Engineer in charge has the unquestionable right to ask for change in the quality and strength of contractor's supervisory staff and to order removal from work of any of such staff. The contractor shall comply with such orders and effect replacements of the satisfaction of the Engineer, in charge.

A work order book shall be maintained on site, and it shall be the property of the Government and the contractor shall promptly sign orders given therein by the Deputy Engineer (Civil), or his representative and his superior Officers, and comply with them.

The contractor to the Engineer shall report the compliance in good time so that it can be checked. The Department free of charge will be provided the blank work order book with machine numbered pages for this purpose. The contractor will be allowed to copy out instructions therein from time to time.

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9. LEVELING INSTRUMENTS:

If measurements of items of the work are based on volumetric measurements calculated from levels taken before and after construction of the item a large number of leveling staves, tapes etc. will have to be kept available by the contractor at the site of work for this purpose, Lack of such leveling staves tapes etc. in required numbers may cause delay in measurements and the work. The contractor will have therefore to keep sufficient number of these instruments readily available at the site and in good working condition

The duties of the representative of the Engineer-in-charge are to watch and supervise the work and to test and examine any material to be used for workmanship employed in connection with the works.

The Engineer-in-charge may from time to time, in writing delegate to his representative any of the powers and authorities vested in the Engineer-in-charge and shall furnish to the contractor a copy of all such delegations of powers and authorities. Any written instruction or approval given by the representative of the Engineer-in-charge to the contractor within the terms of such delegations (but not otherwise) shall bind the contractor and the Department as though it had been given by the Engineer-in-charge, provided always as follows.

Failure of the representative of the Engineer-in-charge to disapprove and work or material shall not prejudice the power of the Engineer-in-charge there after the disapprove such work or materials and to order pulling down, removal or breaking up thereof.

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10. CO-ORDINATION:

When several agencies for different sub-work of the project are to work simultaneously on the project site there must be full co-ordination between the contractors to ensure timely completion of the whole project smoothly. The scheduled dates for completion specified in each contract shall, therefore, be strictly adhered to each contractor may make his independent arrangements for water, power, housing etc. If they so desire, on the other hand the contractor is at liberty to come to mutual agreement in this behalf and make joint arrangement with the approval of the Engineer. No contractor shall take or cause to be taken any steps or action that may cause disruption, discontent or disturbance to work, labors or arrangements etc. of other contractors in the project localities. Any action by any contractor, which the Engineer in his unquestioned discretion may consider as infringement of the above code, would be considered as a breach of the contract conditions and shall be dealt with accordingly.

In case of any dispute or disagreement between the contractors, the Engineer's decision regarding the co-ordination, co-operation and facilities to be provided by any of the contractors shall be final and binding on the contractor concerned and such a decision shall be final and binding on the contractor concerned and such a decision shall not vitiate any contract nor absolve the contractor of his obligations under the contract nor form the grounds for any claim or compensation.

11. ASSISTANCE IN PROCURING PRIORITIES, PERMITS ETC:

The Engineer on a written request by contractor, will, if in his opinion the request is reasonable and in the interest of work and its progress, assist the contractor in securing, the priorities for deliveries, transport, permits for controlled materials etc. where such are needed. The Government will not however be responsible for the non-availability of such facilities or delays on this behalf and no claims on account of such failure of delays shall be allowed by the Government.

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The contractor shall have to make his own arrangement for machinery required for the work. However, if the same is conveniently available with the Department it may be spared as per the rules in force on recovery of necessary Security Deposit and rent at the rate approved from time to time by the independent agreement to this contract and the supply or non-supply of machinery shall not form a ground for any claim or extension of time for this work.

12. QUARRIES:

- 12.1 The contractor(s) shall have to arrange himself/themselves to procure the quarry. However necessary assistance without any extra cost to Government will be rendered by the Department for procuring the quarries if required by the contractor.

The quarrying operations shall be carried out by the contractor with proper equipment such as compressor jack hammers, drill bits, explosive etc. and sufficient number of workmen shall be employed so as to get the required-out turn.

- 12.2 The contractor shall carry out the works in the quarries in conformity with all the rules and regulations already laid down or may be laid down from time to time by Government. Any cost incurred by Government due to non-compliance of any rules or regulations or due to damages by the contractor shall be the responsibility of the contractor.

The Engineer-in-charge or his representative shall be given full facility by the contractor for inspection at all times of the working of the quarry, records maintained, the stocks of the explosives and detonators etc. so as to enable him to check that the working records and storage are all in accordance with the relevant rules. The Engineer-in-charge or his representative shall at any time be allowed to inspect the work, building and equipment at the quarries.

- 12.3 The contractor shall maintain at his own cost the books, register etc. required to be maintained under the relevant rules and regulations and as directed by the Engineer-in-charge. These books shall be open for inspection at all times by the Engineer-in-charge or his representative

and the contractor shall furnish the copies or extracts of the books or registers as and when required.

- 12.4 All quarrying operations shall be carried out by the contractor in organized and expeditions manner systematically and with proper planning, the contractor shall engage licensed blaster and adopted electric blasting and/ or any other approved method which would ensure complete safety to all the men engaged in the quarry and its surroundings. The contractor shall himself provide suitable magazines and arrange to procure and store explosives etc., as required under the rules at his own cost. The designs and the location of the magazine shall be got approved in advance from the chief inspector of explosives and the rules and regulations in this connection as laid down by the chief inspector of explosives, from time to time shall be strictly adhered to by the contractor. It is generally experienced that it takes time to obtain the necessary license for blasting and license for storage of material from the concerned authorities. The contractor must therefore take timely advance action for procuring all such licenses so that the work progress may not be hampered.
- 12.5 The quarrying operations shall be carried out by the contractor to the entire satisfaction of the Engineer-in-charge and the development of the quarry shall be made efficiently so as to avoid the wastage of stones. Only such stone as are of the Engineer-in-charge, not in accordance with the specifications or of required quality will be rejected at any time, at the quarry or at the site of work. The rejected stones shall not be used on the work and such rejected material shall be removed to the place shown at the contractor's cost.
- 12.6 The approaches to the quarrying place from the existing public roads shall have to be arranged by the contractor at his own cost, and the approaches shall be maintained by the contractor at his own cost till the work is over.
- 12.7 Since all stones quarried from Government quarry (if made by the contractor including the excavated over burden are the property of the Government, no stones or the earth shall be supplied by the contractor to any other agencies or works and are not allowed to be taken away for any other works.

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All such surplus quarried materials not required for work under this contract shall be property of the Government shall be handed over by the contractor to the Government free of cost at the quarry site duly heaped at the spots indicated by the Engineer-in-charge. If, however the Government does not require such surplus material, the contractor may be allowed to dispose of or use such material elsewhere with prior written permission of Engineer-in-charge. Leaving off a quarry face or opening of new quarry face shall be done only with the approval of the Engineer-in-charge.

- 14.4 Quarrying permission will have to be directly obtained by the contractor from the Collector of the District concerned for which purpose the Department will render necessary assistance. All quarry fees, royalty charges, Octroi duties ground rent for stacking material etc. if any to be paid shall be paid directly by the contractor as per rules in force.
- 14.5 The contractor will be permitted to erect at his own risk and the cost at the quarry site if suitable vacant space in Government area is available for the purpose, his own structures or stores, offices etc. at places approved by the Engineer-in-charge. On completion of the work the contractor shall remove all the structures erected by him and restore the site to its original conditions.
- 14.6 The contractor shall not use any land in the quarry for cultivation or for any other purpose except that required for breaking or stacking transporting stones.

15 COLLECTIONS OF MATERIALS:

- I. Where suitable and approved MFSCDCL. Department's quarries exist, the contractor piece of worker will be allowed if otherwise there is no objection to obtain the materials to the extent required for the work from the quarry. He will be however, liable to pay compensation, if any damage is caused to the quarry either deliberately or through negligence or for wastage of materials by himself or his staff or labor. The contractor shall pay necessary royalty in advance.

- II. Where no suitable MFSCDCL. Department's quarries exist or when the quality of the material required cannot be obtained from MFSCDCL. Department quarry the contractor or pieceworker shall make his own arrangement to obtain the material from existing or a new quarry in Government waste land, private land or land belonging to other States or Talukas, etc. After opening the quarry but before starting collection, the quarry shall be got approved by the Engineer-in-charge or his representatives. The contractor or piece workers shall pay all royalty charges compensation etc. No claims or responsibility on account of any obstructions caused to execution of the work by difficulties arising out of private owners of land will be entertained.
- III. The rate in the tender includes all incidental charges such as opening of new quarry, opening out a new portion in an existing quarry, removing top soil and the unsuitable material, dewatering a quarry, cost of blasting powder and fuse, lift lead, repairs of existing cart tracks, making new cart tracks, control charges Central/State Government or Municipal taxes.
- IV. The rates in the tender are for the delivery of approved material on roadside property stacked at places specified by Engineer-in-charge and are inclusive of conveyance charges in respect of the leads and lift. No claim on account of the charges in lead will be entertained.
- V. No material shall be removed from the land within road boundary or the land touching it without the written permission of the Engineer-in-charge or his authorized agent. If any material is unauthorized obtained from such places, the contractor or piece worker shall have to make good the damages and pay such compensation, in addition as may be decided by the Deputy Engineer (Civil) and will have stop further collection.
- VI. Any material that on any MFSCDCL Owned Road from the cart etc. during conveyance shall be immediately picked up and removed by the contractor or piece worker, failing which it will be got removed departmentally at his cost. No heap shall be left prior to stacking even temporarily on the road surface or in any way so as to cause any obstruction or danger to the traffic. The contractor or the piece worker shall be liable to pay for any claims of compensation etc. arising out of accident etc. Any such material causing obstruction danger etc. Will be got removed departmentally at his

cost and no claims for any loss or damage to the material, thus removed, will be entertained. The contractor shall also be responsible for the damage or accident etc. arising out of any material that falls on the road or track, not in charge of the Department and shall attend to any complaints, which may be received.

- VII. The material shall not be stacked in place where it is liable to be damage or lost due to traffic passing over it, to be washed away rains or flood, to be buried under the land slide etc. or to slip down on embankment or hill side etc. No claims for any loss due to these and similar causes will be entertained.
- VIII. Before stacking, the material shall be free from all earth, rubbish, beget able matter, and other extraneous substances and in the course of metal, screened to gauge, if so directed. When ready, it shall be stacked entirely clear of the roadway, on ground which has been cleaned of vegetation and leveled. On high banks, Ghat roads etc. where it may not be practicable to stack it entirely clear of the roadway, it may be stacked with the permission of the Engineer-in-charge on berms in such a way as to cause
- IX. danger andobstruction to the traffic or as may be directed by him.
- X. The size of the stacks for the materials other than rubble shall be 3.00 x 1.50 x 0.60 meter or such other size as may be directed by the Engineer – in-charge and all but one stack in 200 meters shall be of the same uniform size and shall be uniformly distributed over whole lengths. One stack (at the end) in each 200 meter may be of length different from the rest in order to adjust total quantity to be required but its width and height will be the same as those of the rest.
- XI. **The Engineer In charge's office** shall supply the contractor with a statement showing 200-meter wise quantities that will be required and the order in which the collection is to be done. No materials in excess of requirements in that 200 meter shall be stacked. Any excess quantity shall be removed at the expenses of the contractor or piece worker to where it is required before the material in that 200 meter is finally measured.

- XII. In stacking material, the deposition shall commence at the end of the km farthest from the quarry and be carried continuously to the other end (unless otherwise directed by the Deputy Engineer Civil). Stacking in one 200 meters shall be completed before it is started in another unless directed otherwise in writing by the Deputy Engineer (Civil). Measurements of the materials stacked in the 200 meter will not be recorded until the full quantity required has been stacked unless otherwise authorized by Engineer in writing. Collection and spreading shall not be carried out at the same time one and the same km or in two adjoining kms. except with the written permission of the Deputy Engineer (Civil).
- XIII. Unless otherwise directed, the materials shall be collected in the following order according to availability of space.
- (1) Rubble (if included in tender). (2) Metal, (3) Soft murmur and (4) Hard murum. Hard Murum shall be stacked on the side opposite to that on which soft murmur has been stacked. Similar, metal collected for petty repairs shall be stacked on the side opposite to metal for new layer. Where metal for two layers has been stacked as in the case of new roads, the metal for each layer shall be stacked on the opposite sides of the road.
- All road material shall be examined and measured before it is spread. The labor for measurements (and check measurements wherever carried out) shall be supplied by the contractor or piece worker. Immediately after the measurements are recorded, the stacks shall be marked by the contractor or piece worker by whitewash or otherwise as may be directed by the Deputy Engineer (Civil) to prevent of any possibility of the same material being measured and recorded over again and to prevent any unauthorized tampering with the stacks. If the contractor or the piece worker fails to attend the measurements of materials after receiving the notice from the Sub-Divisional Officer or his subordinate stating date and time of the intention to measure the work, the same shall be measured nevertheless and no piece worker fails to supply sufficient labor for the materials required at the time of measurements or check measurements after due notice has been given to him, the expenses incurred on account of employing departmental labor or material etc. shall be charged against his account.
- XIV. No deduction will be made for voids.

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16. TEMPORARY QUARTER AND SITE OFFICE:

- (1) The contractor shall at his own expense maintain sufficient experienced supervisory and non-technical office staff including 1 typist (English Marathi) and 2 office boys and necessary required stationary etc. required for the work and shall make his own arrangement, provide housing for them with all necessary arrangements, including fire preventive measures etc. as directed by the Engineer-in-charge. General layout plan for such structures shall be got approved from the Engineer-in-charge. It will be the responsibility of the Contractor to get his layout plan of temporary structure approved from the local competent authority.
- (2) The contractor shall provide, furnish, maintain and remove on completion of the work, a suitable office on the work site for the use of Deputy Engineer (Civil)'s representative. The covered area exclusive of verandah should not be less than 200 sq.ft. It may have bamboo matting walls and asbestos or corrugated iron roof; paved floor should be 45 cm. above ground level. He should provide latrines, urinals and keep them clean daily. This will be supposed to be included in his rate.

17. TREASURE TROVE :

In the event of discovery by the contractor or his employees, during the progress of the works of any treasure, fossils, minerals or any other articles or value or interest the contractor shall give immediate intimation thereof to the Engineer such Treasure or thing which shall be the property of the Government.

18. PATENTED DEVICES, MATERIALS AND PROCESSES :

Whenever the contractor desires to use any designed device, materials or process covered by latter of patent or copy right, the right for such use should be secured by suitable legal arrangement and agreement with patent owner and a copy of their agreement shall be filed with the Engineer-in-charge if so desired by the latter.

19. EXPLOSIVES:

The contractor shall at his own expenses contract and maintain proper magazines, if surcharge required for the storage of explosive for use in connection with the works such magazine being situated, construction and maintained in accordance with the Government prevalent rules applicable.

on that behalf. The contractor shall at his own expense obtain such license or licenses as may be necessary for storage and using explosives. Notwithstanding that the location etc. for storage of explosives are approved by the Engineer, the Govt. shall not bear any responsibility whatsoever in connection with the storage and use of explosive on the site or any accident or occurrence whatsoever in connection there with, all operations of the contractor in or for which explosive employed being at the risk of the contractor and upon his sole responsibility in respect thereof.

20. DAMAGE BY FLOODS OR ACCIDENTS:

The contractor shall take all precautions against damages by floods or from accident etc. No compensation will be allowed to the contractor on this account or for correcting and repairing any such damage to the work during construction. The contractor shall be liable to make good at his cost any plant or materials belonging to the Government, lost or damaged by floods or from any other cause while is in his charge.

21. POLICE PROTECTION:

For the special protection of camp of the contractor's works, the Department will help the contractor as far as possible to arrange for such protection with the concerned authorities. The cost is borne by the contractor.

22. TRAFFIC REGULATION:

22.1. The contractor shall regulate the traffic as per directions of engineer-in-charge. The contractor shall have to provide necessary caution boards, barricades, flags, lights, and watchman etc. so as to comply with the latest motor vehicles rules and regulations and for traffic safety and he shall be responsible for all claims for the accidents which may arise due to his negligence whether in regulating the traffic or in staking material on the roads, or due to any other reasons.

22.2The contractor shall at all times carry out the work on the road in a manner creating least interference to the flow of traffic which consistent with the satisfactory execution of the same. For all works involving improvements to the executing road, the contractor shall in accordance with the directives of the Engineer-in-charge, provide and maintain during the

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execution of work a passage for traffic, along a part of the existing carriage way under improvement. Or along a temporary diversion constructed close to the road.

22.3 It is to be clearly understood that whatever work carried out by the contractor for construction of diversion road including the earth work.

W.B.M. bituminous surface, traffic, due to floods or due to any other cause, this diversion road and / or the R.C.C. drain gets damaged it shall be repaired and maintained by the contractor in good condition till completion of the whole work at his own expenses.

22.4 The contractor has to make own arrangement for temporary acquisition of land if required for diversion.

23. SUPERVISION AND INSPECTION OF WORKS AND QUALITY CONTROL:

23.1 SUPERVISION:

The contractor shall either himself supervise the execution of the works or shall appoint the competent agent approved by the Engineer-in-charge the contractor has himself no sufficient knowledge and experience of receiving instruction or cannot give his full attention to the works, the contractor shall at his own expenses, employ as his accredited agent in qualified Engineer approve by the Engineer-in-charge.

Orders given to the contractor's agent shall be considered to have the force as if these had been given to the contractor himself. If the contractor fails to appoint a suitable agent as directed by the Engineer-in-charge, the Engineer in-charge shall have full power to suspend the execution of the work until such date a suitable agent is appointed, and the contractor shall be responsible for the delay so caused to the works and contractor shall not be entitled for any compensation on this behalf.

23.2 INSPECTION :

The contractor shall inform the Engineer-in-charge in writing when any portion of the work is ready for inspection giving him sufficient notice to enable him to inspect the same without affecting the further progress of the work. The work shall not be considered to have been completed in

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accordance with the terms of the contract un the Engineer-in-charge shall have certified in writing to that effect. Approval of materials or workmanship or approval of part of the work during the progress of execution shall not bind the Engineer-in-charge or in any way affect him even to reject the work which is alleged to be completed and to suspend the issue of his certificate of completion until such alteration and modification or reconstruction have been effected at the cost of the contractor as shall enable him to certify that the work has been complete to his satisfaction.

The contractor shall provide at his cost necessary ladders and such arrangements as to provide necessary facilities and assistance for proper inspection of all parts of work at his own cost.

23.3 INSPECTION OF OPERATION :

The Engineer and any person authorized by him shall at all times have access to the works and to all workshops and places, (including require documents) where work is being prepared or from where materials, manufactured articles or machinery are being obtained for the works and the contractor shall afford every facility for and every assistance in or in obtaining the right to such access.

24. INITIAL MEASUREMENTS FOR RECORD :

Where, for proper measurements of the work, it is necessary to have an initial set of levels or other measurements taken, the same recorded in the authorized field book or measurement book of Government by the Engineer or his authorized representative will be signed by the contractor who will be entitled to have a copy of the same made at his cost. Any failure on the part of the contractor to get such levels etc. recorded before starting the work, will render him liable to accept the decision of the Engineer as to the basis of taking measurements. Likewise, the contractor will not cover any work, which will render its subsequent measurements difficult, or impossible without first getting the same jointly measured by himself and the authorized representatives of the Deputy Engineer (Civil), the contractor will sign the record of such

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measurements on the Government side and he will be entitled to have a true copy of the same made at his cost.

25. SAMPLES AND TESTING OF MATERIALS :

- 25.1 All materials to be used on work, as cement, lime, aggregate, stone, wood, etc. shall be got approved in advance from the Engineer- in-charge and shall pass the tests and analysis required by him, which will be.
- (a) as specified in the specifications for the items concerned and/or
 - (b) as specified by the Indian Road Congress Standard Specification.
 - (c) I.S.I. Specification (whichever and wherever applicable) or
 - (d) such recognized specifications acceptable to the Engineer-in- charge as equivalent there to or in the absence of such authorized specification.
 - (f) such requirements test and / or analysis as may be specified by the Engineer in charge in the order of procedure given above.
- 25.2 The contractor shall at his risk and cost make all arrangements and / or shall provide for all such facilities as the Engineer-in-charge may require for collecting preparing testing required number of samples for tests or for analysis at such time and to such place or places as may be directed by the Engineer and bear all charges and cost of testing. Such samples shall also be deposited with the Engineer-in-charge.
- 25.3 The contractor shall as and when required submit at his cost the samples of materials to be tested or analyzed and if, so directed, shall not make.
- use or incorporate in the work any materials represented by the samples until the required analysis have been made and after the test of the materials, finally accepted by the Engineer- in- charge.
- 25.4 The contractor shall not be eligible for any claim or compensation, either arising out of any delay in the work or due to any corrective measures required to be taken on account of and as a result of testing of the materials .
- 25.5 The contractor or his authorized representative will be allowed to remain present in the departmental laboratory while testing samples furnished by him. However, the results of all the tests carried out in the

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departmental laboratory in the presence or absence of the contractor or his authorized representative will be binding on the contractor.

- 25.6 Cost of routine day quality control testing charges for tests required as per specifications will be borne by contractor by sending the same to the concerned government MFSCDCL Approved Laboratories.
- 25.7 The contractor shall have at his own cost set up laboratory to carry out the routine tests of material, which are to be used on the work. The test will have to be carried out either in his field laboratory or in an approved laboratory. In case tests are carried out in field laboratory at least 25% testing should be carried out at the nearest MFSCDCL.D. quality control laboratory of the Department. Failing to which recovery at prescribed rate of MFSCDCL Quality Control laboratory will be effect from contractor's bill.
- 25.8 In case of material procured by the contractor, testing as required by the codes and specifications shall be arranged by him at his own cost. Testing shall be done in the presence of authorized representative of the Engineer-in-charge at the nearest approved MFSCDCL Laboratory. If additional testing other than as required by specifications is ordered, the testing charges shall be borne by the Department. If the test results are satisfactory and by the contractor if the same are not satisfactory.
- 25.9 In case of material supplied by the Government. If the contractor demands certain testing, the charges thereof shall be paid by the contractor. If the test results are satisfactory and by the department if the same are not satisfactory.
- 25.10 Testing shall be carried out at approved MFSCDCL.D. Government Laboratories or institutions are directed by Engineer-in-charge and all testing charges shall be borne by the contractor.
- 25.11 15% of the rate shall be withheld and shall be released only after the receipt of the satisfactory test results whenever specified excluding concrete items. "Routine test shall mean testing of aggregate for gradation, flakiness index, impact value and binder contents".

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25.12 Mix design of concrete items where specified shall be brought by the contractor at his own cost, from approved laboratory. Also testing of high tensile steel is to be done by the contractor at his own cost.

26. MISCELLANEOUS :

- 1) Rate shall be inclusive of Sale Tax, Turnover Tax, Octroi duty, General Tax, Royalty, and other taxes etc.
- 2) For providing electric wiring or water lines etc. recesses shall be provided, if necessary, through walls, slabs, beams etc. and later on refilled it with bricks or stones chipping cement mortar without any extra cost.
- 3) In case it becomes necessary for the due fulfillment of contract for the contractor to occupy land outside the Department limits, the contractor will have to make his own arrangements with the landowners and pay such rents, if any, are payable as mutually agreed between them. The Department will afford the contractor all the reasonable assistance to enable him to obtain Government land for such purpose of usual terms and conditions as per rule of Government.
- 4) The special provision in detailed specification or wording of any item shall gain precedence over corresponding contradictory provision (if any) in the standard specifications or MFSCDCL authorized Handbook where reference to such specifications is given without reproducing details in contract. Decision of the Engineer in charge shall be final in case of interpretation of specifications.
- 5) Suitable separating barricades and enclosures as directed shall be provided to separate material brought by contractor and material issued by Government to contractor under schedule "A" same applies of the material obtained from difference sources of supply.
- 6) It is presumed that the contractor has gone carefully through the standard specification (Vol. I & II 1981 edition) M.O.S.T. Specifications (edition 1995) and the schedule of rate of the Division and studied the site condition before arriving at rates quoted by him.

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- 7) The stacking and storage of construction materials at site shall be in such a manner as to prevent deterioration or inclusion of foreign materials and to ensure the preservation of the quality, properties and fitness of the work. Suitable precautions shall be taken by contractor to protect the materials against atmospheric ion fire and other hazard. The materials likely to be carried away by wind shall be stored in suitable stores or with suitable barricades and where there is likelihood of subsidence of soil, heavy materials shall be stored on paved platforms the contractor shall at his own expenses engage watchman for guarding the material and plant and machinery and working during day and night against any pilferage or damage and also for prohibiting trespasser.
- 8) The contractor shall be responsible for making good the damages done to the existing property during construction by his men.
- 9) If it is found necessary from safety point of view to test any part of the structure, the test shall be carried out by the contractor with the help of the Department at his own cost.
- 10) The contractor shall provide, maintain, furnish, and remove on completion temporary shed for office on work side for the use of Deputy Engineer (Civil)'s representative.
- 11) Defective work is liable to be rejected at any stage. The contractor on no account can refuse to rectify the defects merely on reasons that further work has been carried out. No extra payment shall be made for rectification.
- 12) In the Schedule 'B' the work has been divided into sections but not withstanding this, every part of it shall be deemed supplementary to and complementary of every other part.
- 13) General directions or detailed description of work, material and items coverage of rates given in the specification are not necessarily repeated in the Bill of Quantities/item wise specifications. Reference is

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however, drawn to the appropriate section clause(s) of the General specifications in accordance with which the work is to be carried out.

- 14) In the absence of specific directions to the contrary, the rates and the prices inserted in the items are to be considered as the full inclusive rates and prices for the finished work described there under and are to cover all labour, materials, wastage, temporary work, plant overhead charges and profits, as well as the general liabilities, obligations and risks arising out of the General Conditions of contract.
- 15) The quantities set down against the item in the Schedule 'B' are only estimated quantities of each kind of work included in the contract and are not to be taken as a guarantee that the quantities scheduled will be carried out or required or that they will not be exceeded.
- 16) All measurements will be made in accordance with the methods indicated in the specifications and read in conjunction with the General conditions of contract.
- 17) The details shown on drawings and all other information pertaining to the work shall be treated as indicative and provisional only and are liable to variation as found necessary while preparing working drawing which will be supplied by the Government during execution. The contractor shall not, on account of such variation be entitled to any increase over the ones quoted in the tender which are on quantity basis.
- 18) The recoveries if any from contractor will be affected as arrears of land revenue through the collector of the District.
- 19) Clause 101 to 107 of specifications of Road and Bridge work adhered herewith will be applicable to works as per Schedule 'B' unless specified otherwise in the detailed specifications of the relevant items.
- 20) All materials used in the construction shall conform to the requirements of specification clause under section- 1000 "Materials for structure" of specification of Road and Bridge works, M.O.S.T., New Delhi, and also the MFSCDCL.D. Standard Specification.

- 21) Extraneous materials and steps to minimize dust nuisance during construction shall be as per clause 111 of M.O.S.T. specification (Third Edition 1995).

27.0 CHANGE OF CEMENT CONTENTS ETC :

The tendered rates for any items, involving the use of cement shall apply to the quantity of cement specified for the mix for that item in the specifications. If for any reasons, expect those required for compensating the deficiencies in the components, the cement content and properties are altered by the Executive (Engineer-in-charge) at any time or from time to time the tendered rates for that particular item and quantity or quantities, reduction in cost of the cement content from the laid down in the specification at the rates. Specified in D.S.R. of the district on which the estimate is based plus 10% to cover all other incidental change whatever. Likewise, if any additives compounds, water proofing materials etc. are ordered by the Engineer to be added to the mortar or concrete, no extra rate shall be payable for this change which shall be carried out as per directions of the Engineer-in-charge provided cost of such additives etc. is borne by Government or these are supplied free of costs to contractor at site by the Government. If the contents of cement in concrete used for work is less than 2% of Schedule 'A' consumption specified in item, then the rates of the item shall be reduced by difference in cost of cement specified in Schedule and actually used while carrying out work and shall be paid accordingly.

28. CEMENT CONCRETE :

- a) The contractor shall carry out all preliminary tests to work out grading and proportioning of aggregates in order to obtain and maintain uniform quality of work. The contractor shall supply all materials, labour and testing cost for preparing and testing samples as required by the Engineer. Unless otherwise specific in the detailed item wise specifications 3 cubes 150 mm x 150 mm x 150 mm will be tested for every 15 cubic meters of concrete or per day whichever is higher.

The contractor shall make field arrangements for slump test, density and bulk age testing and also prepare concrete cubes 150 mm x 150mm x 150 mm for testing compressive strength, at his cost. The cubes shall be got tested at approved laboratory and the test results shall not fall below those prescribed in MFSCDCL.D. Handbook (Table CVP. 412) or as laid down in the specifications. The cost of such cubes and tests shall be entirely borne by the contractor.

- b) All concrete shall be machine mixed, unless otherwise directed by the Engineer-in-charge for controlled or high-grade concrete, the grading of aggregate shall be got approved from the Engineer. The correct proportions and the total amount of water for the mix will be determined by means of preliminary tests and shall be got approved by the Engineer- in-charge however, such approval does not relieve the contractor from his responsibility regarding the minimum works strength requirements. Work test shall be taken in accordance with relevant codes and specifications. The proportioning of aggregate shall be done byweight.
- c) All mixing shall be done by mechanical means in approved mixers. The Engineer may at his discretion, allow in writing hand mixing of concrete for minor items where in small quantities are involved but in that cases the contractor shall increase the cement content of the mixture by 10% without any extra cost.
- d) The form work used shall be made invariably of steel/with lining of steel or with plywood lining, wooden shutters may be allowed at the discretion of the Engineer, lintels, small slabs, and beams, copping etc.
- e) The concrete shall be mechanically vibrated for proper compaction by the method approved by the Engineer.
- f) The concrete shall be cured only by sweet potable water for full 21 days after the time of its placement or as may be directed by Engineer-in- charge.

28.1 REINFORCED CONCRETE WORK:

- a) The work included in this contract shall be carried out in addition to these specifications detailed herein, in accordance with specifications and regulations as down the following standard specifications.

1. Standard Specification published by Government of Maharashtra 1985 Edition.
 2. I.S. 8112: -1989—Specification for 43 grade ordinary port land cement.
 3. I.S. 383: - 1976 – Specifications for coarse and fine aggregate from natural course for
 4. I.S. 1786: - 1985- Specifications for cold twisted bars.
 5. I.S. 432: - 1982 - Specifications for mild steel and medium steel bars.
 6. I.S. 456: - 1978 - Code of practice for plain and reinforce concrete.
 7. MOST: - Ministry of Surface Transport (Road Wing) Specification for Road and Bridge works (Third Revision) 1995 Edition.
 8. IRC :82 2015 : Code of Practice for Maintenance of Bituminous Roads
 9. IRC SP:62-2014: Guideline for Design & Construction of Concrete Low Volume Pavement for Roads.
 10. IRC SP:42 2014: Guidelines for Road Drainage
 11. IRC SP:73 2018: Manual of Specifications and Standards
- If the standard specifications quoted above, fall short for the items quoted in these Schedules of this contract reference shall be made to the latest British Standard of Specifications. If any of the items of contract do not fall in reference quoted above the decision and specifications of the Engineer shall be final.

28.2 ADDITIONAL GENERAL SPECIFICATION FOR ORDINARY AND HIGH-GRADE CONCRETE:

If the concrete strength falls below that specified for the items and if the use can be permitted under clauses 303.3.7 of the I.R.C. Bridge code section.III given below, the unit (Bridge Component) may be accepted at the discretion of the Superintending Engineer concerned as a substandard work at a suitable reduced rate, reduced rate will be determined by the Deputy Engineer (Civil) concerned according to circumstances of the case and the concerned MD/Joint MD approval to the reduced rate as mentioned above is necessary. "Standard specification and code of Practice for Road and Bridge, Section III Cement concrete 303.3.7 standard of acceptance".

- i. Full payment should be made when 75% of the test cube results are equal and above specified strength. Cases failing outside the above limits should be examined and decided by the Engineer-in-charge on merits on each case.
- ii. The test specimen should be taken by representative of the contractor in presence of a responsible officer of the rank of not lower than an Assistant Engineer/Deputy Engineer.
- iii. The test specimen should be formed carefully, and no claim shall be entertained later on, on the ground that the casting of the test specimen was faulty and that the results of the test specimen did not give correct indication of the actual quality of concrete.
- iv. The minimum quantity of cement per one cubic meter of M-15 grade and above concrete should be as per standard specification Book specification B 7.4 on page 39 (1979 Edition).
- v. Payment: a) The payment of such concrete work will not be made till the strengths are ascertained.
- vi. The payment of reinforcement of such affected items will not be made till the strengths of the concrete are ascertained.

28.3 LOAD TEST OF SUPER STRUCTURE.

In the event of the reasonable doubts as to quality of workmanship or of materials used in construction, the contractor shall carry out a load test on superstructure for testing one complete unit of the same preferably the very first of it to be cast as directed by Engineer in order to satisfy the Department about the strength of the structure of the adequacy of the procedure of working as sufficiency of methods followed, and results obtained. The load test shall be carried out as relevant specifications.

The test shall be carried out for the full dead load and 125% live load including impact by observation of deflections at a salient point and comparing them with those computed ones.

They should closely agree with residual deflections after removal of live load after 24 hours and difference between the two shall not be more than 20% of the maximum ones if the recovery is less than 80% of the structure shall be deemed to unacceptable.

In case there is any deficiency, the same shall be made good by the contractor by necessary strengthening of the untested component and necessary improvement shall be made in the units to be constructed next as warranted by their results of the test.

The next unit will again be tested, and process repeated until absolutely satisfactory results are obtained, and the rest of work will be carried out according to the procedure giving such results.

COST OF LOAD TEST AND TESTING CHARGES OF ANY PART OF STRUCTURE

Load testing and testing of any part of the structure will be asked only in case of reasonable doubts. Cost of testing will have to be born by the contractor if the results are not satisfactory, any by Department if satisfactory.

29.0 PROTECTION OF UNDERGROUND TELEPHONE CABLE AND AERIAL TELEPHONE WIRES AND POLES, TRANSMISSION TOWERS, ELECTRICAL CABLES AND WATER SUPPLYING LINES.

During the execution of work, it is likely that the contractor may meet with telephone cable, electrical cable, water supply lines etc. it will therefore be the responsibility of the contractor to protect them carefully all such cases should be brought to the notice of the Engineer-in-charge by the contractor and also the concerned Department. Any damages whatsoever done to these cables and pipelines by the contractor shall be made good by him at his cost.

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30.0 MEDICAL AND SANITARY ARRANGEMENTS TO BE PROVIDED FOR LABOUR EMPLOYED IN THE CONSTRUCTION BY THE CONTRACTOR

- a) The contractor shall provide an adequate supply of pure and wholesome water for use of laborers on works and in campus.
- b) The contractor shall construct trench or semi-permanent latrines for the use of the Laborers. Separate latrines shall be provided for men and women.
- c) The contractor shall build sufficient number of huts on a suitable plot of land for use of laborers according to the following specifications: -
 - (1) Huts of Bamboos and Grass may be constructed.
 - (2) A good site not liable to submergence shall be selected on high ground remote from jungle but well provided with trees, shall be chosen wherever it is available. The neighborhood of tank, jungle, trees, or woods should be particularly avoided, camps should not be established close to large cuttings of earthwork.
 - (3) The lines of huts shall have open space of at least ten meters between rows. When a good natural site cannot procure, particular attention should be given to the drainage.
 - (4) There should be no overcrowding. Floor space at the rate of 2.78 Sqm. per head shall be provided. Care should be taken to see that the huts are kept clean and in good order.
 - (5) The contractor must find his own land and if he wants Government land, he should apply for it. Assessment for it if made available Government.
 - (6) The contractor shall construct a sufficient number of bathing places. Washing places should also be provided for the purpose of washing clothes.
 - (7) The contractor shall make sufficient arrangement for drainage away the surface & sewage water as well as water from the bathing and washing places and shall dispose of this waste water in such a way as not to cause any nuisance.

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- d) The contractor shall engage a Medical Officer with a traveling dispensary for camp containing 500 or more persons if there is no Government or other private dispensary situated within 8 km. from the camp. In case of and emergency the contractor shall arrange at his cost-free transport for quick medical help to his sick worker.
- e) The contractor shall provide the necessary staff for effecting a satisfactory conservancy and cleanliness of the camp to the satisfaction of the Engineer-in-charge. At least one sweeper per 200 persons should be engaged.
- f) The Assistant Director of Public Health shall be consulted before opening a labors camp and his instructions on matters such as water supply sanitary conveniences, the campsite accommodation and food supply shall be followed by contractor.
- g) The contractor shall make arrangements for anti-malarial measures to be provided for the labors employed on the work. The anti-malarial measures to be provided for the labors employed on the work. The anti- malarial measures shall be provided as directed by Assistant Director of Public Health.
- h) Where are workers are required to work near machine and are liable to meet with accident, they should not be allowed to wear loose clothes like dhoti, zabba etc.

31.0 SAFETY MEASURES AND AMENITIES:

The contractor shall take all necessary precautions for the safety of the workers and preserving their health's while working on such job as require special protection and precautions wherever required. The following are some of the requirements listed, though not exhaustive. The contractor shall also comply with the directions issued by the Engineer in this behalf from time to time and at all times.

- (1) Providing protective footwear to workers, in situations like mixing and placing of mortar or concrete, in quarries and place where the work is to

be done under too much wet conditions as also for movements over surfaces infected with oyster growth etc.

- (2) Providing protective head gear to workers, working in quarries etc. protect them against accidental fall of materials from above.
- (3) Taking such normal precautions like providing handrails to the edges of the floating platform or barges, not allowing nails or metal parts or useless timber to spread around it.
- (4) Supporting workmen with proper belts, ropes etc. when working on any masts, cranes, crabs, hoist, dredgers etc.
- (5) Taking necessary steps forwards training the workers concerned on the use of machinery before, they are allowed to handle it independently and taking all necessary precautions in and around the areas where machines, hoists and similar units are working.
- (6) Providing adequate number of boats (if at all required for playing in water) To prevent overloading and overcrowding.
- (7) Providing life belts to all men working at such situations, from where they may accidentally fall into the water, equipping the boats with adequate number of life belt etc.
- (8) Avoiding bare live wires etc. as would electrocute workers.
- (9) Making all platforms, staging and temporary structures sufficiently strong so as not to cause inconvenience and risk to the workmen and supervisory staff.
- (10) Providing sufficient first aid trained staff and equipment to be available quickly at the work site to render immediate first aid treatment in case of accidents due to suffocation's, drowning and other injuries.
- (11) Take all necessary precautions with regard to use of divers.
- (12) providing full length gum boots, leather hand gloves leather jackets with fire proof apron to cover the chest and back reaching up to knees and protective goggles for the eyes to the laborers working with hot handling vibrator in cement concrete and also where use of any or all these items is beneficial in the interest of health and wellbeing of the laborers in the opinion of the Engineer in Charge.

- (13) Suitable scaffolds shall be provided for workmen for all works that cannot safely be done from the ground or from solid construction except such short period work as can be done safely from ladders. When ladder is used, an extra ardor shall be engaged for holding the ladder and if the ladder is used for carrying the materials as well as suitable footholds and handholds shall be provided on the ladder and ladder shall be given an inclination not steeper than 1:4(1 horizontal and 4 vertical).
- (14) Scaffolding or staging more than 3.25 meters above the ground or floors, swing or suspended from an overhead support or erected with stationery supports shall have a guard rail properly attached, bolted, breached and otherwise assured at least one meter high above the floor or platform of such scaffolding or staging and extending along the entire length of the outside and ends thereof with only such openings as may be necessary for delivery of materials. Such scaffolding or staging shall be so fastened as to prevent if from swaying from the building or structure.
- (15) Working platform, gangways and stairways shall be so constructed that they do not sag unduly or are more than 3.25 meters above ground level or floor level. It shall be loosely boarded, have adequate width and be suitably fenced as described in 14 above.
- (16) Every opening in floor of the building or in a working platform shall be provided with suitable protection to prevent fall of person or materials by provided suitable fencing or railing with minimum height of 1 meter.
- (17) Safe means of access shall be provided to all working platforms and other working places. Every ladder shall be securely fixed. No portable single ladder shall be over 9 meters in length, width between side rails in hung ladder shall in no case may be less than 30 cms. for ladders up to and including 3 meters in length. For longer ladders, this width shall be increased at least 6 mm for each additional 30 cms of length uniform step shall not exceed 30 cms.
- (18) Adequate precautions shall be taken to prevent danger from electrical equipment. No materials on any or the sites shall be stacked or placed as to cause danger or inconvenience to any person or the public. The

Contractor shall provide all necessary fencing and light to protect public from accident and proceeding of law that may be brought by any person for injury sustained owing to neglect of the above precaution and to pay any damages and costs which may be awarded in any such suit action or proceedings to any such person or which may with the consent of the Contractor, to be paid to compromise any claim by any such person.

- (19) All necessary personal safety equipment as considered adequate by the Engineer-in-charge shall be available for use or persons employed on the site and maintained in a condition suitable for immediate use and the Contractor shall take adequate steps to ensure proper use of equipment by those concerned.
- a) Workers employed on mixing materials, cement or lime mortars concrete shall be provided with protective footwear and protective footwear and protective goggles.
 - b) Those engaged in handling any materials, which is injurious to eyes shall be provided with protective goggles.
 - c) Those engaged in welding works shall be provided with welder's protective eye shields.
 - d) Stonebreaker shall be provided with protective goggles and protective clothing and seated at sufficiently safe intervals.
 - e) When workers are employed in sewers and manholes which are in use, the Contractor shall ensure that manhole covers are opened, and manholes are ventilated at least for an hour before workers are allowed to get into them . Manholes opened shall be cordoned off with suitable railing and provided with warning signals or boards to prevent accident to public.
 - f) The Contractor shall not employ, men below the age of 18 years and the women on the work of painting with products containing lead in any form. Wherever men above the age of 18 years are employed on the work of lead painting, the following precautions shall be taken.
 - i) No paint containing lead or lead product shall be used except in the form of paste or ready-made paint.

- ii) Suitable facemasks shall be supplied for use by workers when paint is applied in the form of spray or surface having lead paint, dry rubbed and scrapped.
- iii) Overalls shall be supplied by the Contractor to workmen and adequate facilities shall be provided to enable working painters to have wash during and on cessation of work.
- g) When work is done near any place where there is risk of drawing all necessary equipment shall be provided and kept ready for use and all necessary steps taken for prompt rescue of any person in danger and adequate provision made for prompt first aid treatment of all injuries likely to be sustained during the course of the work.

Use of hoisting machines and shackle including their attachments, anchorage, supports shall conform to the following.

- a)
 - i) These shall be of good mechanical construction, round materials, and adequate strength and free from patent defects and shall be kept in good working order.
 - ii) Every rope used in hoisting or lowering materials or as means of suspension shall be of durable quality and of adequate strength and free from patent defects.
- b) Every crane driver or hoisting appliance operator shall be properly qualified and no person under the age of 21 years shall oversee any hoisting machine including any scaffolding.
- c) In case of every hoisting machine and of every chain, ring, hook, shackle, and pulley block used in hoisting or lowering or means of suspension, safe working load shall be ascertained by adequate means. Every hoisting machine and all gear referred to above shall be clearly marked with safe working load.

In case of a hoisting machine having a variable safe working load, each safe working load and the conditions under which it is applicable shall be clearly indicated. No part of any machine or of any gear referred to above in this paragraph shall be loaded beyond safe working load except for the purpose of testing.

d) In case of departmental machines safe working load shall be notified by the Engineer-in-charge. As regards Contractor's machines, Contractor shall notify safe working load of each machine to the Engineer-in-charge whenever, he brings it to site of work and get it verified by the Engineer-in-charge. Motors, gearing transmission, electric wiring and other dangerous parts of hoisting appliances shall be provided with such means as will reduce the minimum risk to the accidental descent of load. Adequate precautions shall be taken to reduce to the minimum the risk of any part of a suspended load becoming accidentally displaced, when workers are employed. On electrical installations, which are already energized insulating wearing materials approved such as gloves, sleeves and coats as may be necessary, shall be provided. Workers shall not wear any rings, watches and carry keys and other materials, which are good conductor of electricity.

As scaffolds, ladders, and other safety devices mentioned or described herein shall be maintained in a safe condition and no scaffold ladder or equipment shall be altered or removed while it is in use. Adequate washing facilities shall be provided at near places of work.

e) These safety provisions shall be brought to the notice of all concerned by display on a notice board at a prominent place at the work spot. Persons responsible for ensuring compliance with the safety code shall be named therein by the Contractor.

- i) To ensure the effective enforcement of the rules and regulations relating to safety precautions, arrangements made by the Contractor shall be open to inspection by the Engineer-in-charge or his representative and the inspecting officers.
- ii) Failure to comply with the provisions here under shall make the Contractor liable to pay to the department as penalty an amount not exceeding Rs. 50/- for each default and decision of the Engineer-in-charge shall be final and binding.
- iii) Not with standing the above conditions the Contractor is not exempted from the operation of any other Act or rules in force.

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32. EXCAVATION AND TRENCHING:

All trenches, 1.5 meters or more in depth, shall at all times be supplied with at least one ladder for each 30 meters in length or fraction thereof. Ladder shall be extended from bottom of trench to at least 1 meter above surface of the ground, side of trench which is 1.5 meter or more in depth shall be stepped back to give suitable slope, are security held by timber bracing, so as to avoid the danger of side collapsing. Excavated materials shall be placed with 1.3 meters of edge of trench or half depth of trench whichever is more. Cutting shall be done from top to bottom. Under no circumstances shall undermining or undercutting be done.

33. DEMOLITION:

Before any demolition work is commenced and also during the process of the work.

- a) All roads and open areas adjacent to the work site shall either be closed or suitably protected.
- b) No electric cable or apparatus, which is liable to be a source of danger, or a cable or apparatus used by operator, shall remain electrically charged.
- c) All practical steps shall be taken to prevent danger to persons employed, from risk of fire or explosion or hoarding. No floor, roof or other part of a building shall be so overloaded with debris of materials as to render it unsafe.

34. SCOPE OF RATES FOR DIFFERENT ITEMS OF WORKS :

For item rate contract, the contract unit rates for different items of work shall be paid in full for completing the work to the requirements of specification including full compensation for all the operation detailed in the relevant sections of these specification under "Rates". In the absence of any direction to the contrary, the rates are to be considered as the full inclusive rate for finished work covering all labors, Materials wastage, temporary work, plant equipment. Overhead charges and

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profit as well as the general liabilities, obligations and risks arising out of the General Conditions of Contract.

The item rates quoted by the contractor shall, unless otherwise specified, also include compliance with supply of the following:

- i) General works such as setting out clearance of site before setting out and clear range of works after completion.
- ii) A detailed program for the construction and completion of works (using CPM/PERT techniques) giving, in addition to the construction activities, detailed network activities for the submission and approval of materials, procurement of critical materials and equipment, fabrication of special products/equipment, and their installation and testing and for all activities of the employer that are likely to effect the progress of work, etc. including updating of all such activities on the basis of the decisions taken at the periodic site review meeting or as directed by the Engineer.
- iii) Samples of various material proposed to be used on the work for conducting tests thereon required as per the provisions of the contract.
- iv) Design mix as per the relevant clauses of the specifications giving proportions of ingredients, sources of aggregates and binder along with accompanying trial mixes as per the relevant clauses of these specifications to be submitted to the Engineer for his approval before use of in the works,
- v) Detailed design calculations and drawing for all Temporary works (such as formwork, staging, centering, specialized constructional handling and launching equipment and the like.):
- vi) Detailed drawing for templates, support and end anchorage, details for prestressing, cable, profiles, bars bending and cutting schedules for reinforcement, material lists for fabrication and structural steel etc.
- vii) Mill test reports for all mild and high tensile steel and cast steel as per the relevant provision of the specifications.

- viii) Testing of various finished items and materials including bitumen, cement, concrete, bearing as required under these specifications and furnishing test reports/certificates:
- ix) Inspection Reports in respect of form work, staging reinforcement, and other items of work as the relevant specification.
- x) Any other data which may be required as per these specifications or the conditions of contract or any other annexure/schedules forming part of the contract.
- xi) Any other item of work which is not specifically provided in the bill of quantities, but which is necessary for complying with provisions of the contract and
- xii) All temporary works and false work. Portion of roads works beyond the limits and or any other work may be got constructed by the employer directly through other agencies. According, other agencies employed by the employer may be working in the vicinity of the work being executed by the contractor. The contractor shall liaise with such agencies and adjust his construction program for the completion of work accordingly and no claim or compensation due to any reason whatsoever will be entertained on this account. The employer will be indemnified by the contractor for any claims from other agencies on this account.
- xiii) All prevailing taxes levied by Government and as amended from time to time.

35. PAYMENTS:

The contractor must understand clearly that the rates quoted are for completed work and include all costs due to labor scaffolding, plant, machinery, supervision, power, royalties, octroi taxes etc. and should also include all expenses to cover the cost of night work if and when required and no claim for additional payment beyond the prices or rates quoted will be entertained.

The mode of measurements has been indicated in the specifications, if there is any ambiguity or doubt in this respect, the decision of Superintending Engineer will be final.

a) **RUNNING BILLS:**

Two payments in a month will be granted by Engineer-in-charge if the progress is satisfactory. Contractor should submit bills to the **Engineer-in-charge/appointed Consultants** in appropriate forms. The payments for work done will be made as and when the funds are available for this work under concerned head and no claims whatsoever from agency on account of delay in payment will be entertained by the department.

b) **FINAL BILL:**

The contractor should submit final bill within one month after completion of the work and the **bill will be paid within 3 months** if it is in order. Depending on availability of funds for this work and no claims whatsoever on account of delay in payment will be entertained by the department. Disputed item and claims if any shall be excluded from the final bill and settled separately latter on.

36. **CLAIMS:**

Bills for extra work or for any claim shall be paid separately apart from the interim bills for the main work. The payment of bills for the main work shall not be withheld for want of decision on the extras or claims not covered in the appendices. Claims for extra work shall be registered within 30 days of occurrences of the event. However, bills for these claims including supporting data/details maybe submitted subsequently.

37. **PRIORITIES OF WORKS TO BE EXECUTED:**

Priorities for items to be executed shall be determined periodically keeping in view the final time limit allowed for the work and all the time schedule fixed for intermediate stages of work.

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38.0 WAGES ACT:

The contractor shall comply with the provisions of payments of wages Act 1936. Minimum Wages Act 1948, Employee's Liability Act 1937, Workmen's Compensation Act 1923, Industrial Dispute Act 1947, Maternity Benefit Act 1961, Contractor Labour (R&A) Act 1970 migrant workmen (Regulation of Employment and conditions of service) Act 1979, or modifications there of or any other law relating thereto and rules and there under from time to time by the Government.

39.0 DISPUTE AND ARBITRATION:

No Arbitration is allowed.

40.0 ELECTRIC POWER:

Arrangement for obtaining Electric Power connection will have to be made by the contractor at his own cost.

41.0 PRELIMINARY ARRANGEMENTS:

The contractor shall have to make at his own cost all preliminary arrangements for labors, water electricity and materials etc. immediately after getting the work order. No claim for any extra payment or application for extension of time on the grounds of any difficulty in connection with the above matter will be entertained.

The contractor shall at his own expenses, engages watchmen for guarding the materials and plant and machinery and the work during day and night against any pilferage, damages and also for prohibiting trespassers or damage to them. The contractor shall have to make his own arrangements for water required for any purposes on the work.

The contractor after completion of work shall have to clean the site of all debris and remove all unused materials other than those supplied by the Department and all plant and machinery, equipment, tools etc. belonging to him within one month from the date of completion of the work, or otherwise the same shall be removed by the Department at his cost and the contract shall not be entitle for payment of any compensation for the same.

42.0 ACCIDENT:

In the event of an accident involving serious injuries or damages to human life or death of any of his employees and or laborers or trespassers, the same shall be reported within 24 hours of the occurrence to the Deputy Engineer (Civil) and the Commissioner of Workmen's Compensation.

43.0 PLANT:

All constructional plant, provided by the contractor shall when brought on the site be deemed to be exclusively intended for the construction of this work and the contractor shall not remove the same or any part thereof (Save for the purpose of moving it from the part of the site to another or for repairs etc.) Without the consent in writing of the Engineer-in-charge which shall not be unreasonably withheld.

44.0 PUBLIC UTILITIES:

In addition to clause 110 of M.O.S.T. (R.W.) Specifications for Road and Bridge works (Second Revision) 1988 following should be added Para 110.6.

Public utility service like HT Lines telephone line etc. that are visible at site should be taken notice of by the contractors while planning their works. It shall be the contractor's responsibility to inspect such services prior to the commencement of any work.

While executing the works, the contractors should take care to see that these services are not disturbed or damaged during the execution.

The Government will not be held liable or responsible for any delay in completion of the job under this contract which may occur due to any damage occurred to such services in consequence of the contractor's operations of delayed completion of the execution for the same.

45. DRAWINGS:

A) Contract Drawings/Details:

The contract drawings are very preliminary and provided for tendering purpose with the tender documents & same shall be used for initial reference only. Contractor should visualize the nature of type of work contemplated and should ensure that the rates and prices quoted by him in the bill of quantities take due consideration of the complexities of work involved during actual execution/construction work as an experienced contractor in the same field which involves developing their own drawings/details including vetting/proof checked from IIT/NIT/VJTI as may be required so as to happen error free Execution of work at the site within the agreed time line.

The tendered rates/prices for the work shall be deemed to include the cost of preparation, supply and delivery of all necessary drawings, prints, tracings, and negatives that the contractor is required to provide in accordance with the contract.

B) Completion Drawings:

The contractor shall submit to the Engineer within 2 (two months) of actual completion "Completion Drawings" as specified below and operation and maintain instructions for the whole of the work.

These drawings shall be accurate and correct in all respect and shall be shown to and approved by the Engineer earlier. For "Completion Drawings" 2(two) prints and one polyester film of quality approved by the Engineer or his representative shall be supplied.

46. HANDING OVER OF WORK:

All the work and materials before finally over by Government will be the entire liability of the contractor for guarding, maintaining, and making good any damages of any magnitude, Interim payments made for such work will not alter this position. The handing over by the contractor and taking over by this Deputy Engineer (Civil) or his authorized representative will be always in writing, copies for which will go to the Deputy Engineer (Civil) or his authorized representative and the contractor. It is, however, understood that before taking over such work, Government will not put it into regular use as district from

casual or incidental one, except as specially mentioned elsewhere in this contract or as mutually agreed to.

47. RELATION WITH PUBLIC AUTHORITIES:

The contractor shall comply with all rules, regulations, byelaws and directions given from time to time by local or public authority in connection with this work and shall himself pay fees or charges which are livable on him without extra cost to the Department.

48. DOCUMENTATION:

If so, ordered by the Engineer-in-charge, the contractor will prepare drawings of the work as constructed and will supply original and three copies to the Engineer who will verify and certify these, drawings Final as contracted drawing shall then be prepare by the contractor and supplied in triplicate to the Engineer for record and reference purposes at the contractor's cost.

- 49.** If the potable water is not available in the riverbed the contractor has to make his arrangement for potable water required for concrete mixing its curing and other parts of the construction for which no extra claim will be paid by the Department.

50. DAY- TO DAY QUALITY CONTROL OPERATIONS:

The day-to-day controls to be exercised by the contractor and engineer are enumerated in the below paragraphs.

51. FIELD LABORATORY

The contractor shall arrange to provide a well-furnished and fully equipped field laboratory which shall be manned by adequately qualified technical staff. The laboratory shall be preferably located adjacent to the plant site and shall be provided with amenities like water supply, electric supply, toilet block etc. The laboratory equipment shall conform to Clause

121.3 of Page 26 of MOST specifications of roads and bridges. The equipment shall be preferably of AMIL make. This shall be considered as incidental to work and no separate payment whatsoever will be made for the same. The testing of materials of work should be carried out as per frequently laid by the MFSCDCL. Department. 25% of the test should be performed in MFSCDCL. Laboratory in variably, failing to which recovery at prescribed rate of should be effective from contractor's bill.

52. SUPPLY OF COLOURED RECORD PHOTOGRAPHS AND ALBUMS

The contractor shall arrange to take dated post card size-colored photographs at the rate of 10 photographs per kilometer at various stages/facts of the work including interesting and novel features of the work as desired by MFSCDCL. laboratory the Engineer-in-charge and supply them in five copies each in separate albums of appropriate size.

He shall also arrange for the video Filming of important activities of the work during the currency of the contract and edit it to a video film of 60 to 180 minutes playing time.

It shall contain narration of the various activities in English / Marathi by a competent narrator. The cassette shall be of acceptable quantity and the film shall be capable of producing color pictures. This shall be considered as incidental to the work and no additional payment whatsoever will be made for the same.

53. SUPPLY OF SAFETY JACKETS TO LABOURES / SUPERVISORS / ENGINEERS.

As a safety measure during the execution of work all labors, construction and supervisory staff be provided with an orange color jackets in fluorescent blue to make them starkly visible from a distance even during evening hours.

54. APPROVAL OF CONSTRUCTION MATERIALS AND CONSTRUCTION ACTIVIES.

Approval of all materials for the work shall be obtained in writing from Engineer-in-charge or his representative before its use in the project. Before taking up of any construction activity the construction work done earlier shall be got approved in writing. Any failure on this account may result in the work for which the contractor will be solely responsible. Materials and job mix etc. shall be got approved in writing at least 15 days in advance of the commencement of corresponding activity. The testing charges shall be borne by the contractor. Besides the prescribed tests and frequencies any other test or tests over prescribed frequency shall also be carried out by the contractor at his own cost if so directed by the Engineer- in-charge or his authorized representative.

58 MAINTENANCE:

58.1 On completion of the work in all respects necessary certificate will be issued by the concerned Deputy Engineer (Civil) and the defects liability period will be counted from the date of issue of certificate.

58.2 During defect liability period contractor is supposed to detect the defects or damages in the completed work. These defects and damages should be rectified within period specified in the notice of defect. If contractor fails to detect or carry out the repairs to such defect, the Engineer in charge will inform in writing about these defects and rectification will be carried out at contractors' risk and cost.

58.3 Defective work is liable to be rejected as any stage. The contractor on no account can refuse to rectify the defects merely no reasons that further work has been carried out . No extra payment shall be made for such rectification.

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- 58.4 In case of damages type failure will be investigated by Engineer-in-charge and repairs to the defective portion will be suggested accordingly. If contractor fails to rectify such damages within specified period in the instructions of Engineer-in-charge, then heavy penalty will be imposed and damaged work will be rectified at contractor's risk and cost. Equipment list of field laboratory.
- 58.5 **CONDITION FOR TREE PLANTATION:** The contractor shall plant 100 trees per kilometer along the roadside or 50 plants in the premises of proposed building are whichever is applicable for the contractor. These plants / trees shall be maintained till the D.L.P. period is over.
- 59. Condition for Equipments: This clause stipulates certain conditions relating to choose and use of equipment which have relating to use of equipment which have relevance to production of quality work.**
- a) The contractor shall be required to give a trial of the equipment for establishing their capability to achieve the laid down specifications and tolerances to the satisfaction of the Engineer before commencement of work.
 - b) All equipment provided shall be of proven efficiency and shall be operated and maintained at all times in a manner acceptable to the Engineer.
 - c) No equipment and personnel will be removed from the work site without the permission of the Engineer.
- 60.** The rates quoted by the contractors should be exclusive of GST. The contractor should pay GST whichever is applicable and submit the receipt to MFSCDC. The GST amount will be reimbursed to the contractor on producing the receipt /challan.

I) CLAUSES IN THE CONDITIONS OF CONTRACT:

- a. All materials and workmanship shall be of the respective type described in the contract and in accordance with the Engineer's instructions and shall be subjected from time to time to such tests as the Engineer may direct at the place of manufacture or fabrication on the site. All samples be supplied by the contractor.
- b. No work is to be covered up or put out of view without the approval of the Engineer for his examination and measurement.
- c. During the progress of the work, the Engineer shall have the power to order, the removal from the site any unsuitable material substitution of proper and suitable material and the removal and proper re-rejection notwithstanding any previous tests or interim payment, therefore and of any work which in respect of materials or workmanship is not, in the opinion of the Engineer in accordance with the contract.

II) According to the contract, the contractor is responsible for the quality of the entire construction work. To meet this requirement:

- a. The contractor shall setup his own laboratory at location(s) approved by the Engineer. The laboratory shall be equipped with modern and efficient equipment with sufficient stand byes, suitable to carry out the test prescribed for different materials and work according to the specifications. The list of equipment to be procured and facilities to be provided shall be got approved by the Engineer. The equipment shall be maintained in a workable condition to the satisfaction of the Engineer.
- b. Sampling and testing procedures shall be in accordance with the relevant standards of BIS (previously called ISI) of IRC. Frequency of testing shall be as laid down in the Ministry's Specifications for Road and Bridge work (4th Revision.) In the absence of relevant Indian Standards, sampling and testing procedures shall be as approved by the Engineer.
- c. The laboratory should be manned by a qualified Materials Engineer assisted by Materials Inspector / Technicians, and the set-up should be got approved by the Engineer.

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- d. The Contractor should prepare Printed Proforma for recording reading and results of each of test, after getting the formats of the performance approved from the engineer. He should keep a daily record of all the tests conducted him. Two copies of the test results should be submitted to the Engineer for his examination and approval of which one copy will be returned to the contractor for being kept at site of work.
- e. The Materials Engineer of the Contractor should keep close liaison with the Quality Control Unit of the Engineer and keep the latter informed of the sampling and testing program so that Engineer's representative could be present during this activity, if considered necessary.

III) In case of cement concrete works:

- a) Besides manufacture's test certificate for quality of cement, at least set of physical and chemical tests should be conducted for each source of supply for verification. Where the quality is in doubt, or where the cement had been stored for long periods or in improper condition, or where the cement had been stored for long periods or in improper condition, the Engineer shall call for testing the cement at more frequent intervals.
- b) Job mix formula based on trials carried out in the contractor's laboratory should be got approved by the Engineer.
- c) The mineral aggregates should be tested for their properties. Water to be used for mixing should be tested for chemical impurities.
- d) Checking for stability and sturdiness of form work.
- e) Ensuring that the crucial equipment like mixers and vibrators are in working order before start of work.
- f) Control on water ratio.
- g) Control on workability and time elapsed between mixing and placing of concrete.
- h) Control on compaction and finishing.
- i) Tests on cube samples at 7 and 28 days.
- j) Check on provisions for adequate curing.

IV) In case of masonry work, control should be exercised on the quality of the material (e.g. stone, brick, and cement etc.) as also on mortar proportions.

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- V) For R.C.C. work quality of steel in each batch may be approved on the basis of test certificate. The reinforcement layout should be checked for conformity with approved drawings and bar bending schedules. All laps should be checked for conformity with the specification. The reinforcement should be free from oil and loose rust scale and should be properly tied with binding wire.

VI) **PAVEMENT COURSES-GENERAL CONTROLS:**

- a) The base on which the pavement layer is to be placed should be checked for levels and regularity and should be in a condition to receive the pavement layer.
- b) Each layer should be checked for thickness, levels, crossfall (camber) regularity and strength before next layer is permitted to be laid.

61. **WORK INSURANCE POLICY** Contractor shall take out necessary insurance Policy / Policies (viz. Contractors All Risks Insurance Policy, Erection All Risks insurance policy etc. as decided by the Director of Insurance) so as to provide adequate insurance cover for execution of the awarded contractwork for total contract value and complete contract period compulsorily from the “**Directorate of Insurance, Maharashtra State, Mumbai**” only. Its postal address for correspondence is “**264 MHADA, First Floor. Opp. Kalanagar, Bandra (E) Mumbai – 400 051**” Telephone Nos. **26590403 / 26590690** and Fax No. 26592461 / 26590403 similarly all workmen appointed to complete the contract work are required to insure under workmen’s compensation Insurance Policy, Insurance Policy / Policies taken out from any other company will not be accepted. **If any contractor has affected insurance with any other Insurance Company, the same will not be accepted** and the amount of premium calculated by the Government Insurance Fund, Maharashtra State. The Director of Insurance reserves the right to distribute the risks of insurance among the other insurances.

62. **Building & Other Construction worker welfare cess:**

One percent of the contract amount will be recovered from contractor towards Building and other construction workers welfare cess as per the building and other construction workers welfare Act. 1996 @ one percent of value of work done in each bill.

63. Royalty:

Contractor should submit Royalty clearance certificate obtained from concerned Revenue authority along with each bill. If the certificate from Revenue authority is not submitted, amount of Royalty will be recovered from Contractor's bill in hand. After deduction from bills no refund shall be allowed even after resubmission of challans.

64. Additional Condition about availability of Funds:

The Budget provision for this work is less at present. The payment of bill will be made as per the availability of funds. No. claims will be entertained for delayed payments."

"If situation arises, the work will be stopped at safe stage and will be withdrawn under clause 15 for which no compensations will be allowed.

In order to enhance the road safety and to timely complete the side shoulders and roadside furniture, the contractor shall complete side shoulders along with MPM work and roadside furniture along with B.T. wearing coat.

65. Technical personnel

The bidders shall note that the following technical staff shall be provided during execution of the work for captioned work only.

Requirement of Technical Staff		Minimum Experience (years)	Designation
Qualification	Nos.		
1. Graduate Engineer (Major component)	1	5-7 years	Project Manager
2. Graduate Engineer or Diploma Engineer	1	3-4 years	Site Engineer
3. Graduate Engineer or Diploma Engineer	1	3-4 years	Electrical Engineer
4. Graduate Engineer or Diploma Engineer	1	3-4 years	HVAC Engineer

Notes-

- 1 " Cost of work " , in table above, shall mean the agreement amount of the work.
2. Rate of recovery in case of non-compliance of the clause be stipulated at

site following rates

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DEPUTY ENGINEER (CIVIL)

Annexure"A"
Quality control tests

Sr.No.	Material	Test	
01.	MasonryStone	1.	Compressive Strength
		2.	CrushingValue
02.	Metal	1.	CrushingValue
		2.	Impact Value
		3.	AbrasionValue
		4.	WaterAbsorption
03.	Bricks	1.	Crushing Strength
		2.	WaterAbsorption
04.	MangloreTiles	1.	Breakingload
		2.	WaterAbsorption
05.	Flooring Tiles	1.	FlexuralStrength
		2.	WaterAbsorption
06.	Glazed Tiles	1.	WaterAbsorption
07.	Cement	1.	Compressive Strength
		2.	Initial Setting time
		3.	Final Setting time
		4.	Specificgravity
		5.	Soundness
		6.	Fineness
		7.	Standard Consistency
08.	Steel	1.	Weight per meter
		2.	Ultimate Tensile stress
		3.	Yieldstress
		4.	Elongation
09.	Granular	1.	Density of compacted layer
		2.	C.B.R.
10.	Lime / Cement stabilized soil sub base	1.	Quality of lime / Cement
		2.	Degree of pulverization
		3.	Lime / cement content
		4.	CDR or uncutined, composite test on a yet of 3 specimens
		5.	Density of Compacted layer
11.	Water Bound Macadam	1.	Aggregate impact Value
		2.	Flakiness index and Elongation Index
12.	Wet Mix Macadam	1.	Impact Value
		2.	Flakiness and Elongation Index
		3.	Density of compacted of Liver
13.	Prime coat / tack coat / Fog spray	1.	Quality of Binder
14.	Seal Coat, Surface Dressing	1.	Quality of Binder
		2.	Impact Value / Los Angeles Abrasion value
		3.	Flakiness and Elongation Index
		4.	Water Absorption
15.	Open graded premix of surfacing/ Close graded premix surfacing	1.	Quality of Binder
		2.	Impact value / Abrasion value
		3.	Flakiness and Elongation Index
		4.	Water absorption

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DEPUTY ENGINEER (CIVIL)

Annexure "B"
Quality control tests and their frequencies

Sr.No.	Material	Test		Frequency oftesting	Remarks
01.	Sand	1.	FitnessModulus	At the beginning and if there is change in source	
		2.	CrushingValue		
02.	MasonryStone	1.	CompressiveStrength	A set of 5 stone for each quarry and for doubtful quality.	
		2.	Specific Gravity		
		3.	Water absorption		
03.	Metal	1.	CrushingValue	One test per 200Cubic Meter or part thereof	MFSCDCL Hand Book IS 56 Part-II
		2.	Impact Value		
		3.	Abrasion Value		
		4.	Water absorption		
		5.	Flakiness Index		
		6.	Sulplling Value		
		7.	Gradation		
04.	Bricks	1.	Crushing Strength	A set of 15 Bricks for each 50,000 consignments or	I.S.1077
		2.	Water absorption		
05.	MangloreTiles	1.	Breakingload	A set of 6 tiles for each 50,000 tiles or part thereof	IS654-1972
		2.	Water absorption		
06.	Flooring Tiles	1.	FlexuralStrength		I.S. 1237-1989
		2.	Water Absorption		
07.	Glazed Tiles, Ceramic and vitrified tiles		Water Absorption	A set of 16 times of each 200 tiles or part thereof	IS - 777
08.	Cement concrete	1.	CompressiveStrength	Upto 5 Cum - 1 Set	MOST Specification 1716
				6-15 Cum - 2 Sets	
				16-30 Cum - 3 Sets	
				31-50 Cum - 4 Sets	
				51 and above - 4 Sets +1 additional set for each additional 50 cum. Or part thereof	
09.	Cement	1.	CompressiveStrength	One test for each consignment of 50 M.T. (1000 bags) or part thereof	I.S. - 269 12269
		2.	InitialSetting-time		
		3.	Final Settingtime		
		4.	Specific Gravity		
		5.	Soundness		
		6.	Fineness		
10.	Steel	1.	Weight per meter	One test for every 5.0 Metric Tonne or part thereof for each diameter	I.S. - 432
		2.	Ultimate Tensilestress		
		3.	Yieldstress		
		4.	Elongation		
11.	Granular	1.	Granular	One test per 200Cum.	MOST Specification Table 900-3.
		2.	Aterberg limits	One test per 200Cum.	
		3.	Moisture content prior to compaction	One test per 250Cum.	
		4.	Density of compacted layer		
		5.	C.B.R.		

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12.	Interlocking concrete paving block	1.	Compressive strength	A set of 8 block for every 10,000blocks	
		2.	Waterabsorption	--do--	
		3.	Flexural test	--do--	
		4.	Resistance to wear	--do--	

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DEPUTY ENGINEER (CIVIL)

ADDITIONAL CONDITIONS OF THE WORK (ELECTRICAL WORK)

1. The Contractor shall submit the Provisional Fire NOC given by Chief Fire officer MFSCDCL before starting the work.
2. The Contractor shall get the list of make/brands approved by Engineer in- charge or any of his authorized representatives will in advance before the execution of work.
3. The Contractor shall produce & submit original manufacture test certificate for the electrical item/ equipment to be used at site as mention in Schedule "B"
4. After the completion of work the contractor shall get necessary final permission from Electrical Inspector & necessary testing from MSEDCL before connecting the installation to license supply.
5. After the completion of work the contractor shall test the entire installation in the presence of Engineer incharge or any of his authorized representatives and submit the test report.
6. The Various permissions should be taken from various govt. dept./local authority time to time by contractor.
7. MSEDCL related work material purchased by contractor should be as per the MSEDCL company specification and approved from concern competent MSEDCL authority & Engineer in charge.
8. Contractor shall get all sanctions/permissions from MSEDCL regarding execution of substation, overhead line etc. required demand charges paid by PWD only.
9. The complete safety of worker during the execution of work is responsibility of contractor. The contractor will have to follow all the safety rules during the execution of work ,the responsibility of compensation will be of the contractor. P.W.D. Department will not responsible for any compensation.
10. Any fees/charges/taxes or penalties towards payment of Government/semi government/local/ private bodies arising during the execution of work is to be borne by the contractor. No refund will be paid for this.
11. The contractor has to maintain the system during the entire period of contract as per existing design in safe manner by adopting all precautions and observing safety rules.
12. The contractor shall have to attend faults, breakdowns and emergency call for 24 hours a day, on all days through his skilled staff during D.L.P.
13. Skilled staff has to be deputed whenever needed and in case of emergency period, the Engineer will intimate the period will in advance.
14. Contractor has to submit the list of skilled staff mentioning their qualifications, ages experience and character with phone numbers.
15. If any part of the complete system is modified of altered with change in design / concept by the contractor. The Executive Engineer will terminate the particular item / full.
16. In case of fatal or non fatal accident occurred to the works during erection and maintenance of system the Department will not be liable to pay for a compensation and its it is duty of contractor to observe all Labor Acts and Rules.

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17. Dully comprehensive contract covers work of replacement of unserviceable / defective operational parts, moving parts switchgears relate in the system, control cables and switchgears etc.
18. After completion of work as built drawing for all work i.e -MEP,HVAC,Civil work etc. Also submit hard copy and soft copy of it in 2 set to the Deputy Civil Engineer and Deputy Electrical Engineer carried out shall be submitted by the tenderer to the Engineer in charge.
19. Electrical work shall comply NBC-2016, NEC-2023, CEA Regulations-2023, CPCB norms& other related statutory provisions.
20. Contractor shall prepare all documents & submit to supply company to take supply meter (connection) to site as per direction given by Engineer-in-charge (Quotation amount will be paid by Department)
21. Contractor should arrange Third party inspection on his own cost, as per directions given in the administrative approval (If required).
22. Contractor should take the photographs of site before start the work, at the time of work & after completion of work. The photographs should be submitted in 3 copies to the Engineer-in-charge.

6.1 PART A SCHEDULE A

Name of Work Repair and Upgradation of Studio 1, 2, 5, 7, 16 & Hospital Building at Dadasaheb
Phalke Chitranagari, Goregaon (East), Mumbai – 400 065

SCHEDULE -A

Schedule showing (Approximately) the materials to be supplied for the work contracted to be executed and preliminary and ancillary works and the rates at which they are to be charged for.

Sr. No	Name ofMaterial	Qty.	Unit	Rates in Figure	Rate in words	Place of Delivery
1	NIL-----					

- Note:- 1. All material is to be brought by the contractor at his own cost. Condition for material to be brought by the Contractor is attached separately.
2. R.C.C. pipes required for the construction of C.D. works (included in this work) should be purchased by the contractor from MFSCDCL approved Vendor/Company only.

Deputy Engineer (Civil)
MFSCDCL Goregaon Mumbai

PRICE VARIATION CLAUSE

If during the operative period of the contract as defined in condition (i) below, there shall be any variation in the consumer price index (New Series) for Industrial workers **for Mumbai** center as percentage the Labor Gazette published by the Commissioner of Labor, Government of Maharashtra and /or in the wholesale price index for all commodities prepared by the office of Economic Adviser, Ministry of industry, Government of India, or in the prices of petrol / oil and Lubricants and major construction materials like bitumen, cement, steel, various types of metal pipes etc., then subject to the other conditions mentioned below, price adjustment on account of –

(1) Labor Component

- (2) Material component
- (3) Petrol, Oil and Lubricants Component
- (4) Bitumen Component
- (5) TMT & Mild, HYSD Steel Component
- (6) Cement Component
- (7) C.I. and D.I. Pipe Component

Calculated as per the formula hereinafter appearing, shall be made. Apart from these, no other adjustments shall be made to the contract price for any reasons whatsoever. Component percentage as given below are as of the total cost of work put to tender. Total of Labor, Material & POL components shall be 100 and other components shall be as per actual.

(1) Labor Component	K1	05.00 %
(2) Material Component	K2	80.00 %
(3) POL Component	K3	15.00 %
(4) Bitumen Components		Actual
(5) TMT/Mild steel Component		Actual
(6) Cement Components		Actual
(7) C.I. and D.I. Pipe Component		NIL

Note: If cement , steel , are supplied on schedule A then respective components shall not be considered. Also, if particular component is not relevant same shall be deleted.

(The price variation clause shown here is just for initial reference only and actual variation shall be implemented at the time of billing as per latest PWD norms as may be required.)

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DEPUTY ENGINEER (CIVIL)

i) **Formula for Labour Component** To be used with Latest IRC recommendations

$$V_1 = 0.85 \times P \times \frac{K_1}{100} \times \frac{L_1 - L_0}{L_0}$$

where =

V_1 = Amount of price variation in Rupees to be allowed.

P = Cost of work done during the quarter under Consideration minus the cost of cement, HYSD/ TMT steel bitumen calculated at the basic star rates as applicable for the Tender, consumed during the quarter under consideration

(1) Cement Rs. 6000.00 Metric Tonne

(2) TMT Steel (FE-500) Rs. 61000.00 Metric Tonne

(3) Asphalt VG-30 grade Rs. 45530.00 Metric Tonne

K_1 = Percentage of Labour Component as indicated above. L_0 = Basic consumer price index for Mumbai Center ascertained as above of the previous calendar month preceding the last date prescribed for receipt of tender, falls.

L_1 = Average consumer price index for Mumbai center ascertained as above during the quarter under consideration.

ii) **Formula for Other Material Component:**

$$V_2 = 0.85 \times P \times \left\{ \frac{K_2}{100} \times \frac{M_1 - M_0}{M_0} \right\}$$

Where = P

V_2 = Amount of price variation in Rupees to be allowed for Materials component.

P = Same as worked out for labour component.

K_2 = Percentage of materials component as mentioned above.

M_0 = Basic wholesale price index shall be average wholesale price index for the quarter preceding the month in which to the last date prescribed for receipt of tender, falls.

M_1 = Average Wholesale price index during the quarter under consideration.

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iii) **Formula for Petrol, Oil and Lubricant component.**

$$V_3 = 0.85 \left\{ \frac{K_3}{100} \times \frac{P_1 - P_0}{P_0} \right\}$$

Where $P =$

$V_3 =$ Amount of price variation in Rupees to be allowed for POL component.

$P =$ Same as worked out for labour component.

$K_3 =$ Percentage of petrol, oil, & Lubricant component.

$P_0 =$ Average price of HSD at Mumbai during the quarter preceding the month in which last date prescribed for receipt of tender, falls.

$P_1 =$ Average price of HSD at Mumbai during the quarter Under consideration.

v. **Formula for Bitumen component:**

$$V_4 = QB (B_1 - B_0)$$

$V_4 =$ Amount of price variation in Rupees to be allowed for Bitumen component

$QB =$ Quantity of Bitumen (VG-30 Grade) in metric tonnes used in the permanent works and approved enabling works during the quarter under consideration.

$B_1 =$ Lowest Price of all the Government / Private refinery on the date of supply of Bitumen.

$B_0 =$ Basic rate of Bitumen in rupees per metric tonne as considered for working out value of P or average ex-refinery price in rupees per metric ton Excluding taxes (GST) of Bitumen for the grade of bitumen under consideration prevailing quarter preceding the month in which the last date prescribed for receipt of tender, falls, whichever is higher.

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v) Formula for HYSD /TMT/Mild Steel component.

$$V_5 = \frac{S_0(SI_1 - SI_0)}{SI_0} \times T \quad \left\{ \right.$$

Where,

- V_5 = Amount of price variation in Rupees to be allowed for TMT steel component
- S_0 = Basic rate of TMT/HYSD/Mild Steel in rupees per metric ton as considered for working out value of P
- SI_1 = Average Steel Index as per RBI Bulletin during the quarter under consideration.
- SI_0 = Average of Steel Index as per RBI Bulletin for the quarter preceding the month in which the last date prescribed for receipt of tender, falls
- T = Tonnage of steel used in the permanent works for the quarter under consideration.

vi) Formula for Cement component:-

$$V_6 = \frac{C_0(CI_1 - CI_0)}{CI_0} \times T \quad \left\{ \right.$$

Where,

- V_6 = Amount of price escalation in Rupees to be allowed for cement component.
- C_0 = Basic rate of Cement in rupees per metric ton as considered for working out value of P
- CI_1 = Average cement index as published in the RBI Bulletin for the quarter under consideration.
- CI_0 = Average of cement Index published in the s RBI Bulletin for the quarter preceding the month in which the last date prescribed for receipt of tender, falls
- T = Tonnage of cement used in the permanent works for the quarter under consideration.

vii) Formula for C.I. / D.I. Pipe component

$$V_7 = Q_4 (D_1 - D_0)$$

Where

- V_7 = Amount of price variation in rupees to be allowed for C.I. / D.I. pipecomponents.
- D_1 = Pig Iron basic price in rupees per tonne considered for working out value of P.
- D_0 = Average pig Iron price in rupees per tonne during the quarter under consideration (published by IISCO)
- Q_d = Tonnage of C.I. / D.I. pipes used in the works during the quarter under consideration.

The following conditions shall prevail:

- i) The operative period the contract shall mean the period commencing from the date of the work order issued to the contractor and ending on the date when the time allowed for the work specified. In the Memorandum under Tender for work expires, taking into consideration the extension of time, if any, for completion the work granted by Engineer –in –charge under the relevant clause of the conditions of contract in cases other than those where such the Engineer in charge as regards the cooperative period of the contract shall be final and binding on the Contractor. Where compensation for liquidated damages is levied on the contractor on account of delay in completion or inadequate progress under the relevant contract provisions the escalation amount for the balance work from the date of levy of such compensation shall be worked out by pegging the indices L_1 , C_1 , S_1 , B_1 , F_1 , and M_1 to levels corresponding to the date from which such compensation is levied.
- ii) The price variation clause shall be applicable to all contractor to B1 / B2 & C form but shall not apply for piece works. The price variation shall be determined during each quarter as per formula given above in this clause.
- iii) The price variation under this clause shall not be payable for the extra items required to be executed during the completion of the work and also on the excess quantities payable under the provisions of clause 38/37 of the contract form B-1, since the rates payable for the extra items or the extra quantities under clause 38/37 are to be fixed as per the current DSR or as mutually agreed, subject to yearly revision till completion of such work. In other words, when the

completion/ execution of extra items as well as extra quantities under clause 38 of the contract form B-1 extends beyond the operative date of the then DSR, the rates payable for the same beyond that date shall be revised with reference to the next current DSR prevalent at that time on year to year basis or revised in accordance with mutual agreement thereon, as provided for in the contract, whichever is less.

- VII) This clause is operative both ways i.e., if the price variation as calculated above is on the plus side, payment on account of the price variation shall be allowed to the Contractor and if it is on the negative side, the Government shall be entitled to recover the same from the contractor and the amount shall be deductible from any amounts due and payable under the contract.
- VIII) To the extent that full compensation for any rise or fall in costs to the Contractor is not entirely covered by the provision of this or other clauses in the contract, the unit rate and prices included in the contract shall be deemed to include amounts to cover the contingency of such other actual rise or fall in costs.
- IX) The contractor shall produce the original Gate Passes / Invoices issued by refinery for claiming price variation (Difference Cost of Bitumen) In case the bitumen is purchased from private agents, the original copies of gate pass / Invoice issued by the refinery to relevant private agent shall be submitted along with this original bill. The gate pass/ invoice shall not be returned by this office.

CERTIFICATE

The above star rates mentioned in this DTP are calculated / workout as per instructions given in Government Resolution No. CAT/06/04/148/ Bldg.2 Dated 16.05.2005, Hence Certified.

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

ADDITIONAL CONDITIONS FOR MATERIALS (CEMENT, M.S., H.Y.S.D. BARS, ETC.) TO BE BROUGHT BY CONTRACTOR.

1. All materials such as cement, Mild Steel, HYSD bars, etc. required for execution of work shall be brought by Contractor at his own cost.
2. The contractor shall maintain the record of these materials (Cement, steel, etc.) in the prescribed proforma and registers as directed by Engineer in charge. The samples of prescribed proforma are attached at the end Page No. 160 to 163. These registers shall be signed by both contractors and representative of Engineer in charge. These registers shall be made available for inspection, verification for the MFSCDCL Departments. As and when required. These registers shall be in the custody of department and shall be maintain by the department.
3. The material required only for this work shall be kept in the Godown at site. No material shall be shifted outside of the go down except for the work for which this agreement is entered without prior approval of the Engineer in charge.
4. The material i.e., cement, steel, bulk asphalt etc. brought on the work site shall be accompanied with the necessary Company/Manufacturing firm's test certificates. In addition, this material shall be tested as per frequency prescribed by the Department and the cost of such testing shall be bourned by the contractor. If the test results are satisfactory, then and then only the material shall be allowed to be used on the work. If the test results are not as per standards, these materials shall be immediately removed from the work site at contractor's cost. In case of cement, If so, requested by the Contractor in writing, materials will be allowed to be used before receipt of the test results but this will be entirely at the risk and cost of the contractor.
5. The contractor shall produce sufficient documentary evidence i.e., bill for the purchase, Octroi receipts etc. for the purchase of material brought on the work site at once if so, requested by the Department.
6. All these materials i.e., cement, steel etc. shall be protected from any damages, rains etc. by the contractor at his own cost.
7. The contractor will have to erect temporary shed of approved specification for storing of above materials at work site at contractor's cost having double lock arrangement (By Double lock it is meant that godown shall always be locked by two locks, one lock being owned & operated by contractor & other by Engineer in charge or his authorized representative and the door shall be openable after both locks are opened)

8. If required, the weighment of cement bags/steel/ bouzers etc. brought by the contractor shall be carried out by the contractor at his own cost.
9. The contractor shall not use cement and other material for the items to be executed outside the scope of this contract except for such ancillary small item as are connected and absolutely necessary for execution of this works as may be decided by the Engineer in charge.
10. The Govt. shall not be responsible for the loss in cement, steel etc. during transit to work site. The cement brought by the contractor at the work site store shall mean 50 kg. equivalent to 0.0347 cubic meter per bag by weight. The rate quoted should correspond to this method of reckoning. In case of ordinary controlled concrete, if cement is found short, the shortage/ shortages will be made good by the contractor at his cost.
- 11. Indemnity:**
The condition regarding indemnity as defined on Page No. 65 at Sr. NO. 4 will apply mutates mutandis in case of material brought by contractor at the site for the execution of the work being executed under this contract.
12. In case the materials brought by the contractor become surplus owing to the change in the design of the work the material should be taken back by the contractor at his own cost after prior permission of the Engineer in charge.
13. All empty cement bags or empty asphalt drums shall be the property of contractor and the same shall be removed immediately after the completion of work.
14. R.C.C. pipes required for the construction of C.D. works (including in this work) should be purchased by the contractor from MSSIDC only. Contractor shall produce necessary proof of purchasing from MSSIDC failing to which the cost of pipe in bill shall be withheld till receipt of proof.

Contractor may procure Bitumen from Government and / or Private refinery and / or from the private bitumen supplier, and / or other producer/ supplier of bitumen provided fulfillment of the following conditions.

1. Contractor shall produce CRC (Consignee receipt certificate) with duly mentioned the name of work clearly for which bitumen is supplied. If the refinery denied mentioning the Name of work on CRC (Consignee receipt certificate) in that case, present procedure of mentioning name of work on gate pass / bitumen Invoice Under the signature of the concerned contractor, Junior / Section Engineer and Deputy Engineer / Sub- Divisional in charge of subdivision.
2. Contractor shall submit / Produce original Bitumen GST Bill Invoice in all copies and one copy of bill will be returned to contractor with duly signed by Deputy Engineer (Civil) for Tax and Audit purpose.
3. In case of delay in submission of such bill by the contractor, the contractor shall be held responsible for delay in payment of bill and no claim on this regard will be entertained by the department.
4. The material purchased from Government and / or private refinery and / or from the private Bitumen Supplier, and / or other producer / Supplier of Bitumen and / opr Company / Manufacturing firms / authorized distributor for cement, steel etc. brought on the work site shall be accompanied with the necessary company / Manufacturing firms test certificates. In addition to this some quantity of these material shall be tested as per norms specified in Indian standard Bureau. Besides that, the material shall be tested as per frequency prescribed.

By the Department and the cost of such testing shall be borne by the contractor. If the test results are satisfactory, then and then only the material shall be allowed to be used on the work. If the test results are not as per acceptable standards, this material shall be immediately removed from the work site at contractor's cost. In case of cement, if so, required by the contractor in writing, cement will be allowed to be used before receipt of the test results but this will be entirely at the risk and cost of the contractor.

5. Contractor shall produce test report of Bitumen Manufacturer of relevant batch as well as test report taken in his own Laboratory 30 % tests shall be done in MFSCDCL. Department's Laboratory and remaining 70 % tests shall be done in the field laboratory erected by the contractor at site. In absence of such field laboratory than tests shall be done in Engineer colleges or Government Laboratory.

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6. Viscosity of Bitumen shall be as per IS 73: 2013 of amended from time to time.
7. Contractor shall produce all the required reports, certificates of bitumen purchased order / Bills to the department, duly self-attested by the contractor himself along with a forwarding letter.
8. Responsibility of Genuineness of Bill produced by contractor in respect of private / Purchases of material shall lies with the contractor only.
9. If bill produced by Contractor in respect of Purchased of material found fake and / or tampered, then Department may take suitable Criminal action against the contractor as per Indian Penal code.
10. If there is any doubts regarding the Genuineness of Bill Produced by the contractor in respect of Purchased of material, Deputy Engineer (Civil) shall have rights to verify or to make enquiry about such bills, and during verification / enquiry, if the same bills / bills is found incorrect or fake of tempered Deputy Engineer (Civil) shall take Criminal action against the contractor as per Indian Penal code, and the Contractor shall also be black listed forever for works in MFSCDCL,.

CONDITION FOR THE MATERIAL BROUGHT BY THE CONTRACTOR

In case of road works, the contractor should submit the sufficient documentary evidence in the form of original copy / copies of challan for the purchase of asphalt from the refinery. It is also made mandatory upon the contractor to submit the affidavit in the form attached (below) as Annexure – B in Envelop No. 1

In the event, contractor being failed to submit the original challans, or, in the event, it is found that the challans submitted by the contractor are not original or fake, he shall be liable for any action deemed fit by the department including action covered under clauses for fraudulent practices. The action may be legal or administrative covering the losses incurred & penalty towards it.

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REGISTER NO.1

FOR RECEIPTS & CONSUMPTION OF CEMENT

Name of Work :-

Balance since last week of the Work Site:

STATEMENT OF RECEIPT AND CONSUMPTION

Date	No of Bags received	No of bags Consumed	Balance No. of Bags at end of day
1	2	3	4

Contractor's Signature

Supervisor's Signature.

REGISTER NO. 2

Chart showing weekly required theoretical consumption and actual consumption of cement bags for workdone actually for the following items.

- 1) Brick Masonry in C.M. 1:6
- 2) RCC M- 10 , M- 15, M-20
- 3) PCC M-8, M-10.
- 4) Others.

ABSTRACTENDING

.....

Sr. No.	Item	Work Done		Theoretical consumption constant (in bags)	Theoretical required consumption constant of cement (in No. of bags)	Cement Actual Consumption (in No. of bags)
		Quantity	Unit			
1	2	3	4	5	6	7

Contractor's Signature

Supervisor's Signature.

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DEPUTY ENGINEER (CIVIL)

REGISTER NO. 1

(Receipt, consumption & balance for months ending

..... Division..... Place of work.....

Name of Work :- _____

Balance since last months	Type and quantities in M.T.					
	Type					
	Quantity					

Daily receipt, Consumption, and balance of steel for week ending.

Date	Receipt of Steel (M.T.)		Consumption of Steel (M.T.)		Balance of each transaction		Abstract of balance steel for each type for week ending	
	Type	Weight in M.T.	Type	Weight in M.T.	Type	Weight in M.T.	Type	Weight in M.T.
	Total		Total		Total		Total	

Contractor Signature
for Issued/ consumed

Signature of J.E.
Sec. Engineer

REGISTER NO. 2

Statement for comparison of steel consumed on each item and theoretical consumption as per drawing for month ending.

Name of Work :- _____

Sr. No.	Item executed	Quantity	Qty. of steel to be consumed as per design drawing (in M.T.)	Actually, consumed steel (in M.T.)

Contractor's signature
for Issued / consumed.

Signature of
J.E./ Engineer

RECOMMENDED MAKES OF MATERIAL

A. Electrical Installation

Sr.No.	Material	Frequency of testing
1.	Transformers	Bharat Bijlee, Crompton Greaves, Pactil, Kirloskar or approved by MSEDCL etc.
2.	HT Switchgear	Siemens, Kirloskar, Crompton Greaves, ABB
3.	MV Switchgear	
a)	Air Circuit Breakers	Siemens, English Electric, L&T, Crompton Greaves, ABB
b)	Moulded Case Circuit Breakers	English Electric, L&T, Crompton Greaves, ABB
c)	Contractors	Siemens, L&T, Crompton Greaves, Cutler Hammer
d)	Meters & Relays	English Electric, Universal, Automatic Electric
e)	Over Loads	Siemens L&T, Cutler Hammer
f)	C.T.	Automatic Electric, Power Pack
g)	Fans	Crompton, Usha, Havells, Bajaj
4.	H.T. Cable	CCI, ICC, Universal, Gloster, Havells, Polycab, Finolex
5.	L.T. Cables	Universal, Glostar, Havells, Polycab, Finolex, K.K. cables, Vishal cables
6.	Cable End Terminations Glands & Lugs	Dowells
7.	Cable Trays	MEK, Sadhana, Metal Perforation Pvt. Ltd.
8.	PF capacitors	
a)	Capacitors	Momays, Asian, Khatau, Junker, Power Cap, TIBCON
b)	Relays	Syntron, Phasitron as approved
c)	Ignitars	L&T, Minilac, Philips, Crompton
9.	Distribution Boards	
a)	Fuses	Siemens, English Electric, L&T,
b)	MCB's	Crompton Greaves, Siemens, MDS, S&G Power, Indo Kopp
c)	Rewirable Fuses	KEW, BOSMA, Crompton greaves, Havell's, Anchor
d)	Dimmers	L & T, Automatic Electric, rider, Anchor, MK, CPL, ROMA
e)	M.S. Conduit	Precession
f)	PVC Conduit	Premium
g)	Wires	Finolex, Filco, V. Plast, Polycab & Anchor
10.	Mirror Optic Fittings	Wipro, Crompton Greaves, Philips, Fixolite.
11.	CFL, PL, LED Lamps fittings	Philips, Crompton Greaves, Wipro, Bajaj

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GENERAL CONDITION FOR ELECTRICAL WORKS

1. All the items occurring in the works and as found necessary in actual execution shall be carried out in workman like manner as per specification given in P.W.D. Hand book (Volume-16) I.F wiring Regulations for buildings. I.B.Act., (late addition) IS code of practice for each item of work and as per the instruction of Dy. Engineer (Elect), In-charge from time to time . Specification herewith attached shall however have the precedence and the contractor/s should please read them carefully.
2. Item must be distinctly understood that the conditions of the contract and specification are intended to be rigidly enforced and no relaxation on the ground of customs prevailing is to be allowed. No extra work will be carried out by the contractor's unless ordered in writing by the Dy. Engineer (Elect) within seven days of receipt of such orders. Extra charges for claim in respect of extra work will not be entertained unless the work to which it relates as clearly without the spirit and meaning of the specifications.

In case of the failure of the contractors to get the rate fixed as above within the specified period as above, the rate that may be fixed by the Dy. Engineer (Elect) shall be binding on the contractor.

3. The contractor shall engage and experience licensed and authorized first class supervisor (Elect.) for the work who should be capable of managing and guiding the work. He will take such orders as may be given to him from time to time and will be responsible for carrying out the same promptly.
4. In case the contractors continue to indulge in doing work contrary to the instructions give to them in the order beck or given in writing by separate communication they will be doing so entirely at their risk and cost and the Engineer –in-charge or his authorized representative shall have the right to stop such work and get the needful done at the contractor's risk and cost. The contractor shall be held responsible for the delay of execution of work and other consequences arising out of nonco9mpliance of the orders given.
5. The contractor/s will have to make is / their own arrangements at his/their own cost for office and stores an safe-guarding the materials dropped to the work and the materials issued by the MFSCDC Ltd. If any.
6. The contractors shall provide all labour, tools, peg, strings and all other materials as required for linking and setting out the cable routs etc. and all tools, laour etc. required to complete the job in all respect for the work without any payment.
7. The contractor shall make their own arrangement at their own expenses all necessary provisions for housing water supply ad sanitary arrangement for his/their employees and pay directly to the authorities concerned all rents/sales tax and other charges. However, water charges at 0.1% of the estimated cost of the word will be recovered from the R.S. bills of the contractor.
8. The rates tendered by the contractor/s shall be inclusive of all taxes, duties, excise, octroi and all other taxes on the materials required for the work and labour and no extra payment shall be made to

the contractor on any account thereof. NO escalation on any account is permissible.

9. The time provided in the contract takes into account all exigencies including monsoon conditions.
10. Every tenderer to give shall be made to give clear possession of the work in the building in one lot. If it is not possible to do so the possession shall be in separate lots for which delay no claim shall be entertained. However, on such account necessary extension of the contract period may be considered on application from the contractor at the right time. The contractor shall show satisfactory progress on the work where clear possession of the site is given and in case of delay action as per terms of contract shall be taken.
11. The contractor shall have to pay all deposit and payment to all concerned authorities for execution of all items of the work under this contract and the same are inclusive of his/their rates.
12. After completion of the job contractor/s shall remove forthwith all the serviceable and unserviceable materials from the site of work and other debris shall be dumped and leveled as ordered within the authorized area, if required or otherwise shall remove the same from site of work, if so ordered without any extra cost.
13. In case of failure on the part of the contractor/s to comply with any of the instructions given in the notice of tender under the tender conditions, the Dy. Engineer (Elect.) to get the work done at the risk and cost of the contractor/s and deduct necessary amount from his/their bills or other dues in the M.F.S.& C.D.C. LTD.
14. The rates quoted in the tender apply to all the details described for the items in the Schedule B and in specifications notes or any other part of the tender. The items shall be treated complete item payable at the tendered rates and nothing extra being payable separately on any account.
15. The sanction schedule of rates for the current year shall be taken into account for any extra item and the same shall be binding on the contractor/s.
16. The contractor/s shall be fully responsible for safe guarding, fittings, fixtures etc. till the work is completed in all respects and handed over to Dy. Engineer(Elect.) of the work in writing.
17. **GUARANTEE:** It is binding on the contractor/s to give the guarantee for repairs and replacement of any part which goes out of order due to manufacturing defects within a period of one year from the date of completion of the work.
18. All the times under the contract must be done as per the direction of Dy. Engineer (Elect.) or his authorized assistants and be easily accessible and capable of being thoroughly inspected.
19. All the materials, accessories and fittings etc. provided by the contractor/s shall be of best quality and shall conform with the standard specification. The materials etc. shall be as per detailed list and the samples shall be submitted accordingly and get approved. If contractor failed to use the approved make of materials, accessories etc. the same will be rejected and replaced at the risk and cost of the contractor/s.

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20. The work shall not be sublet or carried out by a subcontractor Only full competent wireman /skilled workers shall be employed and the work shall be carried out under the direct supervision of the licensed supervisor. The name and the license of he first class Supervisor shall be intimated before commencement of the work to the Dy. Engineer (Elect.) in writing.
21. The work shall be executed in a workman like manner and shall present neat and satisfactory appearance when fully completed.
22. The specification for this work are based on the plans of the building showing the approximate location of all outlets, switches, accessories etc. in the drawings. In case the specification are completely contrary on each other, and if decided by the Dy. Engineer (Elect.) to shift the position of any light points/fain points etc. or to modify the line out the contractor shall have to carry out any alterations without any extra cost as per the instruction of the Engineer-In-chagre.
23. During the execution of any items of work any damage is done to the structural members, finishing of the main work, the same shall be rectified and reinstated to the original store to the entire satisfaction of the Dy. Engineer (Elect) failing which the needful shall be done at the entire risk and cost of the contractor/s and the expenditure incurred shall be recovered from his dues.
24. Before purchasing any accessories, fittings etc. required for the work the contractor shall get the brand and samples approved from the Dy. Engineer (Elect) and in case they faired to do so, the work with such a materials will be liable to be rejected for which the responsibility shall be solely of the contractor/s.
25. All items of the work shall be completely and thoroughly finished in fine workman like manner as per the direction of the Dy. Engineer (Elect) or his authorized representative before the work is handed over to the MFSCDCL. Satisfactory test for the work and materials shall be given by the contractor/s at his own cost.
26. The contractor shall have to obtain necessary NOC from P.W.D. Electrical Inspector if total height of the building is more than 15 meters for which no extra payment shall be made.
27. Every care should be taken to see that the progress on the work as per specification and the work completed within stipulated time and work handed over to MFSCDC Ltd. In writing with inventory and signed by the Supervisory Staff of this office without which the work shall not be treated as completed.
28. The contractor/s should submit the sample consisting of all materials as per the specifications to the Dy. Engineer (Elect) within three days of receipt of the work order and get the same approved before installation of the same on the site of the work.
29. The supervisory staff of the Dy. Engineer (Elect) shall be entitle to remove bad quality and non-specter, non-approved materials for rejection without any extra charges for the same. Any materials beyond approval and deviation from the specified shall have to be replaced free of cost by the contractors.
30. All permissions / approvals from Electrical Inspector, Thane-1 and MSEDCL has to be obtained by the contractor.

DETAILED SPECIFICATION OF ELECTRICAL WORK

5.1 GENERAL SPECIFICATIONS:

The following item wise specification will apply under circumstances to the work to be carried out against this contract and it is to be ensured the contractor shall obtain for himself at his own expenses and on his own responsibility all the information which may be necessary off purpose of competing the tender and for entering into a contract keeping in view the specifications and inspection of same etc.

The tender rates shall include for the cost of materials, erections, construction, commissioning, labour, supervision, tools, planks, transport, all taxes contingencies, breakage, wastage, salaries, scaffolding, maintenance of installation for one year etc., they should be for an item compete in all respect.

The electrical installation shall comply with the requirement of Indian Electricity Act and Rules made there under and also with any other regulation such as these made under fire insurance act they may be applicable.

5.2 MATERIALS:

- a. All materials used on the works shall to the relevant B.I.S. specifications.
- b. The material covered under quality control order shall bear the manufacturing certificate issued by the competent authority under the order.
- c. While carrying out Electrical works latest provisions of I.E. rule must be followed.
- d. All materials and fixtures to be used by the contractor are to be got approved from the Engineer in charge before they are used in the work.
- e. The contractor shall use materials accessories or fitting any one of the makes mentioned in the tender and as approved by the Engineer in charge of the work.
- f. Before the commencement of the work the contractor shall submit detailed drawing in triplicate showing the size of the cubical panel with bus bar arrangements, switchgears, M.C.C.B.'S., Voltmeter, Ammeter, Rotary switch, C.T. along with the connection for the approval of the Deputy Engineer (Electrical.).

5.3 SUPERVISION & QUALITY CONTROL:

The M.F.S. & C.D.C. Ltd. has appointed Engineer in charge to supervise, for quality control & checking the measurement and day to day progress of the electrical works. The contractors shall receive necessary instructions from the Dy. Engineer (Elect.) regarding the work in writing as and when necessary.

Before, the commencement of work, the contractor, shall obtain necessary approval of Electrical materials and accessories required for the work and obtain necessary lay out approved through the Dy. Engineer (Elect.)

The Dy. Engineer (Elect.) shall be overall in charge of the work to maintain good quality and completion of the work in all respects as stipulated in the contract.

CONTRACTOR

Deputy Engineer (Civil)
MFSCDCL Goregaon Mumbai

ADDITIONAL SPECIFICATIONS FOR ET WORKS:

General:

The Electrical Installation work in general shall be carried out in accordance with I.E. Act, IEE wiring regulations for buildings. I.S. code of practice for various types electric works and P.W.D. Handbook (Vol.16). But wherever these specification differ from the above rules, the specifications given below shall be strictly followed.

Point Wiring on T.W. Battens:

The battens shall be of well seasoned teak-wood without knots and shall be impregnated with two coats of shellac varnish before actual use. The thickness of the battons shall be as per I.S. specifications. The T.W. Battons shall be fixed on the walls or ceiling of the buildings by means of PVC Pousgs, and iron screws. The distance in between the crews supporting the battons shall not be more than 60 Cmm (2Ft.). The screws shall be fixed counter – sunk so that the wires fixed on the battens are not scratched or damaged. Bends and curves made of well seasoned teak-wood and duly varnished shall be used at the places where the run of wires is changing the directions. The battens shall be in full length and pieces will not be allowed on the run.

The wires shall be attached to the battens by using tinned brass joint clips of 32 SWG (274 mm thick) and 8 mm wide of suitable size. (or as specified in items) as required and fixed with pure brass nails of 3/8" x 17 SWG and with a spacing not more than 80 mm centre to centre.

T.W. Boards, blacks etc.

All the boards used shall be made of 1st class teak wood will seasoned and will polished. These shall be double fooling type with 2 to 3 Nos. of heavy duty rust proof himtches and 2 Nos. of heavy brass hooks and eyebols of required size. The top planks shall be either T.W. or 6mm thick marine ply. The boards shall be fixed to walls by fixing 4 Nos. of T.W. qutties in the walls and with iron screws. In case, sun mica surfaced boards are specified, the same shall he provided on the above mentioned T.W. Boards with approved quality sun mica laminated sheet and proper adhesive firmly. The T.W. round or square blocks shall be double type and of best quality and of suitable size to suit accessories etc be fixed on. The blocks shall be well polished and the size and quality of T.W. Boards/blocks shall be got approved from the Engineer- In-Charge before actual use on the work.

When PVC casing/ capping system is done, the round blocks shall be of PVC and of heavy duty

and approved quality as directed. The same shall be of appropriate size to suit the accessories to be fixed on and fixed on ceiling by using PVC plugs and iron screws of required size.

Teak-wood quitters for supporting pipes, cables etc. shall be used and shall be of 19mm square tapered of required length and of best seasoned teak-wood and well polished. These shall be rigidly secured to walls by using cement mortar and finished properly. Nowhere the screws shall be hammered while fixing if hammered, such work will be rejected.

Point wiring in PVC Casing and Capping (Trunking) system:

In the alternative if specified or if directed by the Engineer In Charges, the wiring shall be done in PVC casing and capping system. The PVC casing and capping shall be of heavy duty of approved make and of appropriate size and thickness to accommodate required number of wires. The same shall be of white colour with embossing of manufactures name and other details. The casing shall be fixed on walls or ceilings by using PVC plugs and iron screws of required size. The distance between the screws supporting the casing shall not be more than 60mm (2.00feet). Necessary PVC fittings and accessories required for this type of wiring (bends, tees couplings elbows couplers etc.) shall be used as required and as directed by the Engineer In charges.

INSULATED WIRES :

All the wires shall be poly-vinyl chloride insulated having copper/aluminium conductors of standard type and of required cross section area at the minimum 1.5 Sq.m. and of 650 Volts grade ISI grade ISI marked The make type and quality of these wires shall be got approved from the Engineer In charge. The same shall be fixed on buttons or run in PVC Casting/capping as required and/specified in the items of schedule "B" Point wiring in any of the above systems shall be done in looping in system with each point having a separate control. The wiring passing through a porcelain or PVC pipe of required size duly finished and matched with the original wall etc as directed.

ACCESSORIES :

Single pole switches be bakelite porcelain based type, piano type, piano type flush mounting for 5/15 amp. A.C. 250Volts grade as specified in the item of schedule. All the contacts ad springs, screws and other parts in the switches shall be robust and shall be of brass or bronze as per I.S. specification. The switches shall be fixed on the T.W. boards or blocks as the case may be by means of brass screws of suitable size. All switches controlling light points must be placed on phase wire only. The switches and other accessories shall be mounted at the height of 1525 mm from floor level unless and otherwise specified. Single switches shall be fixed on double square blocks 4"x4"x1.5".

Three pin plug sockets shall be either porcelain based bakelite or piano type, flush mounting type for 5/15 amp. A.C. 250Volt grade as specified in item of Schedule. All the plugs sockets must have two pin and one earth terminal of brass/bronze. The earth terminal to be connected to the main earth wire by means of 12 swg. Alluminium wire duly sleeved in the switch boards with PVC sleeve of required size and length. The socket shall be fixed on TW boards by means of pure brass screws of required size.

All the batten holders abgle holders and pendent holders shall be bakelite based either white or of urea of skirt type only with inner pure brass ring for 5 amps. A.C. 250 volts grade. All the contacts and springs shall be of heavy duty brass or bronze. The springs in all type of holders shall be strong enough and shall be capable for making good and firm contacts with the bulbs. Pure brass screws of suitable size.

The ceiling rose shall be bakelite white/urea with all heavy duty brass/bronze connectors, screws etc. suitable for 5 amps. AC 250 Volts grade supply and shall be fixed similarly as that of holders as mentioned above.

Anchor type D.P. Switches must be heavy duty type and equipped with an indicator lamp of best durable quality and shall be porcelain based ivory/white urea cover, 30 Amps. 250 Volts capacity and have all copper/bronze contact, screws and all parts preferably with silverside contacts. The springs shall be of bronze and of robust type and suitable for quick make and break action. It may be noted that if the DP Switch is provided in the meter cupboard or cabine on existing or providing TW Planks for reduction in the rate of Rs. 4.50 per number will be given for not providing the TW Board or Planks as per tender item provision. The DP Switches shall be fixed with brass screws of required size and length as directed. The DP Switches in meter cupboard shall be marked with oil paint the block numbers and polarity as directed. The Contractors shall at their cost give full load testing for the specified current as and instructed by D. Engineer (Electrical).

PVC armoured cable :-

The cables shall be poly vinyl chloride of ISI Mark, heavy duty type with copper/aluminium conductors of specified size as mentioned in the item of schedule and of 1100 Volt grade. Each coil or drum of cable must be accompanied by the makers certificate to that effect setting there the class and all other details as per IS specification and also certificate of having paid excide duty to the concerned authorities of Corporation. The cables shall have marker's name or other means of identification or emboss at heavy meter length of the cable as specified of ISI authorities.

The cable shall be erected on the walls or ceilings and supported on MS spacers of size 3 3/4" (19mm wide) 3/16" (5mm) thick of required length and with MS Clamps 3/4" (19mm) wide and 1/8" (3mm) thick of required length for bunch of cables (from 2 to 8 cables) or GI (14SWG) clamps or heavy duty GI saddles for single cables as directed. The spacing of MS Spacers shall be 30 cms. Centre to centre and at the both ends of the curve where

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cables are bent for changing direction. The MC spacers shall be firmly fixed by means of nettie-fold iron screws of adequate size and PVC plugs. The MS clamps shall be fixed to the spacers by means of round headed GI screws of required size as directed. The cable shall be lead in full length from the source of supply main switches in the meter cabin upto the main switches as directed i.e. one length on joining of cables is permitted unless and otherwise instructed to do so in special cases. The cables passing through the slabs for flooring shall be protected in provided GI pipe for single cable and MS/GI boxes for more cable fabricated out of 14 SWG MS/GI sheets. In either cases the same shall be embedded in the floor in flush with the bottom surface of the slab and brought upto one ft. above the finish floor levels and finished with cement/mortar and smooth plaster upto 3" (75mm) from floor level on all three sides of the box for which nothing extra shall be paid. If the boxes are MS the same shall be of CRCA grade only and painted with one coat of red oxide and 2 coats of enameled paint of approved tinge and quality, before actual erection on site.

The armouring of the cable shall be connected to the earth electrode or main earth by means of G.I. 14 SWG wire, and suitable size heavy duty copper or aluminum earthing clips at all the terminating points as directed and for earthing clips nothing extra shall be paid. A continuous earth wire, GI of 10 SWG shall be run along with cable by using GI bending wire, at regular intervals of 2 ft. as directed. The main earth shall be connected by means of GI wire 14 SWG and terminated in the main switch board. All the GI wires shall be not dipped galvanized plated, iron wires will not be allowed and the name well be liable for rejection if used by the contractor deliberately or through oversight. These specifications include all connection in all accessories etc. Wherever necessary and as directed by the Dy. Engineer (E).

If specified in the item of the item of schedule, and if the conductors are of aluminum the following precautions and remedies shall be followed scrupulously for the better workmanship and durability.

- i) Circular cuts should not be made on the insulation
- ii) The bare conductors shall be handled with care to prevent scratches which may break conductors.
- iii) Clean the conductors and apply liberally a suitable contact grease before inserting it, the terminals.
- iv) Use a proper size screw driver for the tightening the knob and other screws. Connections with aluminum conductors shall not be made without applying grease single white layer of oxide forms on aluminium conductors will impale conductivity.

DPIC, TPIC SWITCHES AND DB'S

The switches shall be of rewirable fuses type of capacity as mentioned in the items of schedule and shall be fixed on angle and frame or TW board as directed. The switches shall be of heavy duty construction totally enclosed dust proof, quick make and break action and capable of carrying continuously the current specified with necessary connections earthing as directed.

Distribution boards shall be of heavy duty MS dust proof of capacity as mentioned in the schedule of items with fused and neutral bar of required capacity and fixed on angle and frame or TW Board as directed with necessary connection, earthing, testing as directed. The make, type and quality shall be got approved from the Dy. Engineer (Electrical).

EARTHING :

GI earth plate of size 60 x 60 x 0.6. Shall be buried in 1.5 meters below ground level near meter cabin as directed duly filled with 30 K.G. charcoal and GI Earth wire *SWG double shall be connected with nut – bolts. The earth wire shall be covered in a GI pipe of 12 mm diameter upto 2 meter length and terminal shall be provided in the meter cabin to connect the earth lead wire with lugging, connections as directed. The work shall be carried out as per IS 3043/1966 and per drawings given therein

CAUTION BOARD:

The caution board shall be of heavy duty citreous enameled GI sheet of 18 SWG of size 150 x 150 cms. As per IS 2551/1961 and shall be erected in position as directed by the Dy. Engineer (Electrical).

FLOURSESCENT FITTINGS : Shall be of white stove enameled box type with 0.8 mm thick MS sheet and shall be one light type with 40 watts tube, starter, polyester, heavy duty copper choke with silicon stamping condenser of adequate capacity. This shall be properly wired upto and erected with lock type holders. Fittings and chokes shall be same make and quality and fixed on two numbers of TW blocks as directed.

M.V. LAMP FITTINGS, BRACKET AND M.V. LAMPS : The M.V. Lamp fittings should be watertight of approved make and similarly CAT. No. Gas – 125 P Glolite. The same shall be complete with inner reflector and clear acrylic cover and closed type wired within 3 pin porcelain holder, copper polyester choke condenser fuse and shall be of same make and quality and fixed on provided bracket as directed.

M.V. Lampas shall be of three pin screw type 250 V. 125/250/400 Watts and shall be of approved quality, make as per tender specifications and list of material and shall be fixed in a position and tested as directed by Dy. Engineer (Elect). Wall bracket shall be painted with one coat of red oxide and two coats of enamel paint of approved quality and tinge. This shall be fixed in a position rigidly by means of 50mm x 50mm x 3 mm thick MS flat (2 Nos.) welded to the pipe as directed and 10 mm dia x 100mm long, grouted nut bolt. The design shall be got approved from Dy. Engineer (Elect) before executing the work.

EARTH WIRE : The earth wire shall be of 10 SWG hot-dipped galvanized and shall be run along with the VC armoured cable as earth wire and shall be connected to the main earth terminal in meter cup-board as directed.

Individual rooms shall be provided earthing by bonding/connecting & running 14 SWG G.I. earth wire from made in earth wire upto the main switch board in each room.

CIRCUIT MAINS AND BOARD WIRING: PVC corrugated flexible pipes of required size and quality with ISI mark shall be used whenever necessary in the meter cupboard with copper wiring as specified in the item of schedule complete with couplings, bakelite or rubber, bushes, sleeves etc. as required and directed shall be used.

MCB'S ISOLATORS, ENCLOSURES ETC : The miniature circuit breakers shall be of adequate capacity as mentioned in the schedule of items and as directed by the Dy. Engineer (Elect) and approved make and fixed in the provided metal clad enclosure or distribution board as directed complete with necessary connections and fixed in position as directed on angle and frame or TW Board as directed. The capacity and type of DBS, Isolators etc. shall be as per item of schedule.

On completion of installation fully, the contractor shall carry out the testing of the same with a megger as per IS code of practice, complete wiring, layout diagrams, megger testing results and earth testing results shall be submitted by contractor to the Dy.Engineer (Elect.) for the satisfactory completion of the work without which the work will not be treated as completed in all respects.

6.4 MOULDED CASE CIRCUIT BREAKER :

The MCCB shall be OTH series (DTH – 400) with thermal release range 500 Volts, with breaking capacity upto 50KA, including fixing and connection & testing complete.

6.5 TRIPLE POLE METAL CLAD HRC FUSE SWITCH :

The switch unit shall be of approved make and quality 500 volts erected with connection & testing as directed.

6.6. P.V.C. ARMORED CABLE 1.1 K.V. GRADE

The PVS aluminum armored cable shall be of 1.1 KV Grade with aluminum conductor PVC insulated, inner sheathed with G.I. flat steel strip armoring and PVC sheathed cable of approved quality and make conforming to IS 1554 (part-I) 1988 code AY (in case of single core) and code AYWY/AYFY/AYY(in case of 4 core cable) ISI mark. The cable shall be in single piece and no jointing is permitted. The cable shall be laid in provided trench after removing stone or any sharp materials or fixed to the wall or pole or structure with the 6mm thick 32mm width MS spacers with continuous earth wire of ordered including lugging connection and testing.

6.7. XLPE CABLE:

The cable shall be stranded aluminum with G.I. steel strip armoring PVC sheathed 11000 V., Grade ISI, marked and conforming to IS with normal temperature 90 C and overload temperature upto 130 C with fair resistance capacity and shall have bending ready of 10 x D (10 times overall dia.)

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6.8 M.S. SHEET :

The M.S. sheet shall be of good quality and of 16 SWG to be used and for fabrication of cubical panels and other boxes. After fabrication the MS sheet shall be cleaned on both sides with acid before applying anticorrosive paint and the with 2 coats of enamel paint. And seven tank process must be followed. Cutting making opening for controlling the switches of fixing accessories shall be done in a workman like manner the complete drawing of cubical panel shall be prepared submitted by the electrical contractor for approval of the Engineer in Charge.

6.9 IRON :

The iron shall be in the form of flats or angle or the channel of various sizes, to suit the requirements. These are to be used for the fabrication of cubical panels, framed etc. for fixing switch gears and accessories. These Iron work or to be cleaned with acid and coated with one coat of red oxide and two coats of enamel paint on the erected imposition.

6.10 COPPER STRIPS:

The copper strip shall be of electro grade for bus bar in the cubical panel the size shall be 50 mm X 10 mm size and for earthing the size shall be used.

The Items include cutting, drilling, fixing with tinned brass nuts bolts and providing installation to bus bars and connection and testing. The earthing strips are to be painted with approved type and quality of paint with connections and fixing as directed.

6.11 SUB-BAR SUPPORT:

The Bus bar support shall be of approved make and quality and bus bar support suitable for 1000 Amps capacity bus bars fixed with tinned brass nut bolts ant required distance in the provided cubical panel board.

6.12 EARTHING:

General:

The earthing shall confirm to the following specification and also refer to the Indian standard. Type of Earth Electrodes:

- a. Plate type earth electrode: This shall be galvanized a cast Iron plate of 60 cm. X 60 cm. X 3 mm. fiat and with bare copper wire of required size as per the Indian standard.
- b. Earth lead : The main earth lead shall be of G.I. strip of 32mm X 6mm thick of R copper trip of 25mm X 3mm fiat and with bare copper wire of required size as per the Indian standard.

c. Location of earth Electrodes: Normally an earth electrode shall not be situated less than 1.5 meter from any building care shall not be situated less than 1.5meter form any building care should be taken that the excavation for earth electrodes may not should be taken that the excavation for earth electrodes may not effect the column footing or foundation of the building or any structure.

d. Method of Installation and Watering: As per the attached drawing G.I. Pipe for of 19mm dia. C Class with funnel attached at the top end of the pipe for watering shall be provided and shall be housed in a masonry enclosure of not less than 30cm X CM x 30cm with a CA frame with CI cover at the top.

The G.I. earth wire of the required size and no's shall be enclosed I 12mm dia. G.I. C class pipe connected or G. I. strip of 32 X 6mm flat or copper strip nut bolts washers etc, and covered with bituminous compound to avoid rusting. The charcosl and salt layers shall be provided in the pit as per the IS as directed by the Engineer in charge. The record distance between electrodes shall not be less than 4mm or as per the Indian Standard specification for electrical sub station of 630 KVA/11.

6.13 AMMETER :

Aluminum lugs shall be heavy duty type made of electro grade aluminium and shall confirmed to IS. This shall be fixed properly by crimping tools of required size and capacity and connected with tinned brass nuts bolts and tested as directed.

6.14 VOLTMETER :

The Voltmeter shall be 0-500 volts/50cycles flush type as approved, to be installed on the provided M.S. box including connection with PVC copper wire complete with testing as directed.

6.15 SELECTOR SWITCH :

This shall be with a primary winding of 100/5-400-5 ratio as approved, with 15 volts Amps burden to be installed inside the cubical panel including connection copper wire complete with testing as directed.

6.16 SELECTOR SWITCH :

This shall be suitable for 3phase A.C. supply, 500 Volts., 50 cycles suitable for voltmeter including connection with PVC copper wire and testing complete.

6.17 PILOT LAMPS :

This shall be of approved make and quality to be fixed on panel board with necessary panel fuses and copper PVC wire connection complete with testing.

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6.18 PRINTED INSTRUCTION CHARTS :

This shall have instructions printed in English and Marathi for training persons suffering from electric shock etc. This charges shall be framed with good quality frame and clear front glass and back covering and to be fixed on the wall as directed.

6.19 RUBBER MATING :

The rubber mating shall be of superior quality with high insulation properties and from the approved manufacturer. This shall be of 6mm thickness and of required breadth and length as approved by the Engineer In-charge.

6.0

SPECIAL CONDITIONS OF THE WORK

POWER SUPPLY

The contractor shall obtain electric supply with construction meter from the electric supply company (BEST), on his own. If any documents are required from the department, to be submitted with, power supply application, shall be provided by the department, on demand. Contractor shall pay all the fees and deposits on his own to the electric supply company (BEST) for construction meter. No payment shall be reimbursed to the contractor, on account of construction meter. The contractor shall pay the electric bills of construction meter time to time. No reimbursement shall made to the contractor on account of electric bills of the construction meter.

The contractor has to process all the documents required for power connection to the building, license for operating elevators, NOC of Fire department, Inspection fees of Electrical inspector, Security deposits for permanent electric connections and meters etc. The payments shall be made on the behalf of and on the name of department. All legal fees and deposits paid shall be reimbursed to the contractor, on the submission of original receipts paid on the name of the department.

DRAWINGS, SPECIFICATIONS AND DEVIATIONS

The drawings and specifications, laid down as per PWD specification and relevant standards of equipment and workmanship shall be observed. Should the tenderer wish to depart from the provisions of the specifications and drawings either on account of manufacturing practice or for any other reasons, he should clearly draw attention in his tender to the proposed points of departures and submit such complete information, drawings and specifications as well enable the relative merits of the deviations to be fully appreciated.

The contractor shall prepare fabrication and working drawings and be got approved by the Executive Engineer, South Mumbai (Electrical Division) approval of the drawings does not relieve the contractor of his responsibility to meet with the intents of the specifications. All such drawings for approval shall be in duplicate.

All tools, tackles, scaffolding and staging required for erection and assembly of the equipment and installation covered by the contractor by the contract shall be obtained by the Contractor himself. All other materials such as foundation bolts, nuts etc. Required for the installation of the plant shall also be supplied and deem to be included in the contract. Contractor shall strictly follow all the safety rules & regulations and shall follow good engineering practices in the course of work. If any loss (Monitory & life)is caused to any person on site, due to negligence of the contractor/his staff/ his workers, the contractor shall be fully responsible for the same and also for the compensation as per the directions of the relevant laws. The contractor shall have insurance this own cost, of the all workers, staff working on the site.

CO-ORDINATIONWITHOTHERAGENCIES

Successful tenderer shall co-ordinate his work with other agencies engaged in, the construction of building.

COMPLETIONOFTENDERSPECIFICATIONS

All fittings, unit, assemblies, accessories, hardware, foundation bolts, terminal lugs for electrical connection, cable glands and miscellaneous materials or accessories or items of work which are useful

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and necessary for efficient assembly and working of the equipment shall be deemed to be included in the tender within the overall cost quoted. The equipment shall be completed in all details whether such details have been mentioned or not.

WORKMANSHIP

The entire work of fabrication, manufacturer assembly and installation of equipment shall conform of high grade workmanship. All the equipment supplied and erected must be able to with stand the Atmospheric condition of

- | | |
|-------------------------------|---|
| (a) Maximum ambient temp. 45C | (b) Maximum relative humidity 98% |
| (c) Corrosive atmosphere | (d) Hot and humid climate close to sea cost |

List of Material for Testing			
Sr. NO.	Name of Article	B.S. No.	Remark
-----As per direction of Engineer in charge-----			

If the report of the above material is found unsatisfactory, same will have to be replaced by the contractor at his own cost even though already erected. The replaced material shall be sent for testing again and testing fee/charges will be borne by the contractor.

TESTING & HANDING OVER

The Contractor shall carry out tests on different equipment as specified in various standards In the presence of representatives of the Engineer in order to enable him to determine whether the plant, equipment and installation is in general, complying with the specifications.

The installation shall be taken over by the Engineers after satisfactory testing along with four sets of documents each consisting of:-

- I. Detailed equipment data as approved by the Engineer.
- II. Manufacturer's maintenance and operating instructions.
- III. Set of drawings, showing plant layouts, piping, ducting etc.
- IV. Approved test readings and certificate of Statutory authorities.
- V. Test report of the contractor as per I.E. Rules.

Submission of the above documentation shall form a pre-condition for the final acceptance of the plant **and installation and final payment.**

PERFORMANCE GUARANTEE

All equipment and the entire installation shall be guaranteed to yield the specified ratings and design conditions plus/minus 3% tolerance. Any equipment found short of the specified ratings by more than the allowable tolerance as determined by the test readings shall be rejected.

The tenderer shall guarantee the following.

- a) Quality, strength and performance of material used.
- b) Mechanical and Electrical strength of all parts under all specified conditions of operation shall with stand for safe operation
- c) Satisfactory operation during the maintenance period of 1 year after completion.
- d) Performance figures and other particulars as specified by the tenderer as per schedule.
- e) Quick free of charge service during guarantee period for repairs and breakdowns.
- f) Successful tenderer will have to furnish performance guarantee on the stamp paper of Rs.500/- for 5% of tendered amount in prescribed proforma enclosed. The cost of the stamp paper shall be borne by the tenderer.

STATUTORY INSPECTIONS

The Contractor shall be fully responsible for meeting all the statutory obligations and local inspectorate pertaining to the works carried out by them. The contractor should prepare all working drawings and obtain approval of competent authority and also have the equipment and installation inspected and get approved. All official fees will be borne and paid by the contractor and if paid by the Department to avoid delay directly against demand in writing from the appropriate authority the Department will recover the same from the contractor. All other expenses for submission and approval of the various and relevant statutory bodies including the above shall be deemed to have been embodied in the tender prices.

COMPLIANCE OF SAFETY CODE

Successful tenderer shall ensure compliance with statutory provision of Safety regulation and departmental requirements of safety codes in respect of labour employed on the work by the tenderer.

In the event of the contractor fails to observe the same, the Department will have liberty to make the necessary arrangement at the cost of the contractor and recover this cost from him. The contractor shall be responsible for any compensation to the workmen payable under the Workmen Compensation Act 1923 duly amended as on date or any other statutory Regulations in force.

A competent authorized and licensed supervisor shall be on the site whenever the contractor's men are at work. The supervisor should ensure that all plant and machinery used on the site are rendered safe for working and meets with the Indian or international safety standards applicable for the use and operation of such machinery.

The supervisor should also ensure that the work men are supplied with and made to use safety appliances such as safety belts, life liners, helmets etc. and those prescribed as I.E. Rules, 1956.

It is entirely the responsibility of the contractor to practice the principles of 'Safety First' during the entire tenure of work with adequate comprehensive insurance covering injury or death to work men or any other persons on site, loss by theft, or damage to materials and property in position or not. The contractor should clear the site of all debris every day to avoid accidents. In case this is not done, the Department may engage necessary labour to maintain the cleanliness of the premises and removal of debris, and debit all or part of the expenditure so incurred to the contractor.

The contractor shall here to, at his own expenses, make all preliminary arrangement as indicated below immediately after the contract is awarded without any loss of time.

He shall construct necessary store sheds with double locking arrangement for the storage of the materials required on the work. The material brought at site for execution of the work shall not be removed without specific permission is obtained from the competent authority in writing.

He shall at his own expenses engage watchman for guarding the materials and the work during day and night against any pilferage or damages and also for prohibiting any trespasser till it is finally handed over to the building authority.

For all temporary electrical connections, contractor should provide healthy condition cables/wires of appropriate capacity without any joints. All the temporary connections shall be taken through RCBO of appropriate capacity. Proper earthing shall be provided for all temporary connections.

While carrying out electric/gas welding work on site, the contractor shall keep fire extinguisher in working condition near the place of welding work.

Note: All codes and standards referred in the specification are latest where not specified otherwise the installation shall generally follow the Indian Standard Codes of Practice or the relevant British Standard Codes of Practice in the absence of corresponding Indian Standards.

WORKING PROCEDURE

- 1) All complaint calls shall have to be attended by Contractor's workers within reasonable time and with fastest possible speed, but in any case, it shall not be extended beyond 24 hours.
- 2) Log Book has to be maintained by the Contractor at site in consultation with the Site Engineer.
- 3) Inspection/ Inspection note with completion report shall have to be maintained in duplicate by the Contractor mentioning all work details and to be signed by contractor's Representative and site in charge by handing over one copy to site in charge.
- 4) Periodically within monthly shall have to be made with respect to work order schedule for regular servicing and inspection and repair if any required.

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- 5) The Contractor shall preferably obtain the signature of Engineer in charge after attending the break down call and inspection/servicing and all work should be carried out with knowledge to in charge.
- 6) Fully comprehensive contract covers work of replacement of unserviceable/ defective operational parts, moving parts switchgears related in the system, control cables and switchgears etc.
- 7) The Contractor has to maintain cleanliness towards respective system, sufficient safety, ethics and politeness in behavior by him/staff.

COMPREHENSIVE CONTRACT COVERS

- 1) Work of repair or replacement of unserviceable operational parts or moving parts such as motor, car, rope, governor, gearbox, pulley, contact relays, switch gears etc.
- 2) Replacement of consumable items such as bulbs, fuses, control cables, lugs, locks with keys etc. and also lubricants, service materials.
- 3) Replacement of gearbox oil periodically with test result.
- 4) Cleaning of the necessary parts periodically with help of required materials with respect to method of construction/ servicing to be decided with Engineer. In charge checking of system and alignment and overhauling.
- 5) Complete installation machine room lift pit etc. shall be maintained neat and in clean manner.
- 6) Painting shall be done once in a year for complete machinery including moving and not moving parts.
- 7) Rewinding of motor and all its preventive maintenance.
- 8) Monthly regular servicing & inspection shall be carried out

7.0

PRICE VARIATION CLAUSE

If during the operative period of the contract as defined in condition (i) below, there shall be any variation in the consumer price index (New Series) for Industrial workers **for Mumbai** center as percentage the Labor Gazette published by the Commissioner of Labor, Government of Maharashtra and /or in the wholesale price index for all commodities prepared by the office of Economic Adviser, Ministry of industry, Government of India, or in the prices of petrol / oil and Lubricants and major construction materials like bitumen, cement, steel, various types of metal pipes etc., then subject to the other conditions mentioned below, price adjustment on account of –

(8) Labor Component

- (9) Material component
- (10) Petrol, Oil and Lubricants Component
- (11) Bitumen Component
- (12) TMT & Mild, HYSD Steel Component
- (13) Cement Component
- (14) C.I. and D.I. Pipe Component

Calculated as per the formula hereinafter appearing, shall be made. Apart from these, no other adjustments shall be made to the contract price for any reasons whatsoever. Component percentage as given below are as of the total cost of work put to tender. Total of Labor, Material & POL components shall be 100 and other components shall be as per actual.

(1) Labor Component	K1	05.00 %
(2) Material Component	K2	80.00 %
(5) POL Component	K3	15.00 %
(6) Bitumen Components		Actual
(8) TMT/Mild steel Component		Actual
(9) Cement Components		Actual
(10) C.I. and D.I. Pipe Component		NIL

Note: If cement , steel , are supplied on schedule A then respective components shall not be considered. Also, if particular component is not relevant same shall be deleted.

i) **Formula for Labour Component** To be used with Latest IRC recommendations

$$V_1 = 0.85 P \frac{K_1}{100} \times \frac{L_1 - L_0}{L_0}$$

where =

V_1 = Amount of price variation in Rupees to be allowed.

P = Cost of work done during the quarter under Consideration minus the cost of cement, HYSD/ TMT steel bitumen calculated at the basic star rates as applicable for the Tender, consumed during the quarter under consideration

(4) Cement Rs. 6000.00 Metric Tonne

(5) TMT Steel (FE-500) Rs. 61000.00 Metric Tonne

(6) Asphalt VG-30 grade Rs. 45530.00 Metric Tonne

K_1 = Percentage of Labour Component as indicated above. L_0 = Basic consumer price index for Mumbai Center ascertained as above of the previous calendar month preceding the last date prescribed for receipt of tender, falls.

L_1 = Average consumer price index for Mumbai center ascertained as above during the quarter under consideration.

ii) **Formula for Other Material Component:**

$$V_2 = 0.85 \left\{ \frac{K_2}{100} \times \frac{M_1 - M_0}{M_0} \right\}$$

Where = P

V_2 = Amount of price variation in Rupees to be allowed for Materials component.

P = Same as worked out for labour component.

K_2 = Percentage of materials component as mentioned above.

M_0 = Basic wholesale price index shall be average wholesale price index for the quarter preceding the month in which to the last date prescribed for receipt of tender, falls.

M_1 = Average Wholesale price index during the quarter under consideration.

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iii) **Formula for Petrol, Oil and Lubricant component.**

$$V_3 = 0.85 \left\{ \frac{K_3}{100} \times \frac{P_1 - P_0}{P_0} \right\}$$

Where $P =$

V_3 = Amount of price variation in Rupees to be allowed for POL component.

P = Same as worked out for labour component.

K_3 = Percentage of petrol, oil, & Lubricant component.

P_0 = Average price of HSD at Mumbai during the quarter preceding the month in which last date prescribed for receipt of tender, falls.

P_1 = Average price of HSD at Mumbai during the quarter Under consideration.

iv) **Formula for Bitumen component:**

$$V_4 = QB (B_1 - B_0)$$

V_4 = Amount of price variation in Rupees to be allowed for Bitumen component

QB = Quantity of Bitumen (VG-30 Grade) in metric tones used in the permanent works and approved enabling works during the quarter under consideration.

B_1 = Lowest Price of all the Government / Private refinery on the date of supply of Bitumen.

B_0 = Basic rate of Bitumen in rupees per metric tonne as considered for working out value of P or average ex-refinery price in rupees per metric ton Excluding taxes (GST) of Bitumen for the grade of bitumen under consideration prevailing quarter preceding the month in which the last date prescribed for receipt of tender, falls, whichever is higher.

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v) **Formula for HYSD /TMT/Mild Steel component.**

$$V_5 = \frac{S_0(SI_1 - SI_0)}{SI_0} \times T \quad \left\{ \right.$$

Where,

- V_5 = Amount of price variation in Rupees to be allowed for TMT steel component
- S_0 = Basic rate of TMT/HYSD/Mild Steel in rupees per metric ton as considered for working out value of P
- SI_1 = Average Steel Index as per RBI Bulletin during the quarter under consideration.
- SI_0 = Average of Steel Index as per RBI Bulletin for the quarter preceding the month in which the last date prescribed for receipt of tender, falls
- T = Tonnage of steel used in the permanent works for the quarter under consideration.

vi) **Formula for Cement component:-**

$$V_6 = \frac{C_0(CI_1 - CI_0)}{CI_0} \times T \quad \left\{ \right.$$

Where,

- V_6 = Amount of price escalation in Rupees to be allowed for cement component.
- C_0 = Basic rate of Cement in rupees per metric ton as considered for working out value of P
- CI_1 = Average cement index as published in the RBI Bulletin for the quarter under consideration.
- CI_0 = Average of cement Index published in the s RBI Bulletin for the quarter preceding the month in which the last date prescribed for receipt of tender, falls
- T = Tonnage of cement used in the permanent works for the quarter under consideration.

vii) **Formula for C.I. / D.I. Pipe component**

$$V_7 = Q_4 (D_1 - D_0)$$

Where

- V_7 = Amount of price variation in rupees to be allowed for C.I. / D.I. pipecomponents.
 D_1 = Pig Iron basic price in rupees per tonne considered for working out value of P.
 D_0 = Average pig Iron price in rupees per tonne during the quarter under consideration (published by IISCO)
 Q_d = Tonnage of C.I. / D.I. pipes used in the works during the quarter under consideration.

The following conditions shall prevail:

- iv) The operative period the contract shall mean the period commencing from the date of the work order issued to the contractor and ending on the date when the time allowed for the work specified. In the Memorandum under Tender for work expires, taking into consideration the extension of time, if any, for completion the work granted by Engineer –in –charge under the relevant clause of the conditions of contract in cases other than those where such the Engineer in charge as regards the cooperative period of the contract shall be final and binding on the Contractor. Where compensation for liquidated damages is levied on the contractor on account of delay in completion or inadequate progress under the relevant contract provisions the escalation amount for the balance work from the date of levy of such compensation shall be worked out by pegging the indices L_1 , C_1 , S_1 , B_1 , F_1 , and M_1 to levels corresponding to the date from which such compensation is levied.
- v) The price variation clause shall be applicable to all contractor to B1 / B2 & C form but shall not apply for piece works. The price variation shall be determined during each quarter as per formula given above in this clause.
- vi) The price variation under this clause shall not be payable for the extra items required to be executed during the completion of the work and also on the excess quantities payable under the provisions of clause 38/37 of the contract form B-1, since the rates payable for the extra items or the extra quantities under clause 38/37 are to be fixed as per the current DSR or as mutually agreed, subject to yearly revision till completion of such work. In other words, when the

completion/ execution of extra items as well as extra quantities under clause 38 of the contract form B-1 extends beyond the operative date of the then DSR, the rates payable for the same beyond that date shall be revised with reference to the next current DSR prevalent at that time on year to year basis or revised in accordance with mutual agreement thereon, as provided for in the contract, whichever is less.

- X) This clause is operative both ways i.e., if the price variation as calculated above is on the plus side, payment on account of the price variation shall be allowed to the Contractor and if it is on the negative side, the Government shall be entitled to recover the same from the contractor and the amount shall be deductible from any amounts due and payable under the contract.
- XI) To the extent that full compensation for any rise or fall in costs to the Contractor is not entirely covered by the provision of this or other clauses in the contract, the unit rate and prices included in the contract shall be deemed to include amounts to cover the contingency of such other actual rise or fall in costs.
- XII) The contractor shall produce the original Gate Passes / Invoices issued by refinery for claiming price variation (Difference Cost of Bitumen) In case the bitumen is purchased from private agents, the original copies of gate pass / Invoice issued by the refinery to relevant private agent shall be submitted along with this original bill. The gate pass/ invoice shall not be returned by this office.

CERTIFICATE

The above star rates mentioned in this DTP are calculated / workout as per instructions given in Government Resolution No. CAT/06/04/148/ Bldg.2 Dated 16.05.2005, Hence Certified.

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

9.0

GUARANTEE BOND FOR PERFORMANCE SECURITY

In consideration of the Governor of Maharashtra (hereinafter referred to as "the Government") having agreed to exempt _____ (hereinafter referred to as "the Contractor") from depositing with the Government in Cash the Sum of Rs. _____ (Rupees _____ only) being the amount of PERFORMANCE SECURITY Deposit payable by the Contractor to the Government under the terms and conditions of the Agreement dated the _____ day of _____ and made between the Government of the one part and the contractor of the other part (Hereinafter referred to as "the said Agreement") for _____ as security for the observance and performance by the contractor of the terms and conditions of the said agreement, on furnishing to the Govt. a guarantee in the prescribed form of a Scheduled Bank in India being in fact these presents in the like sum of Rs _____ (Rupees _____ only), We _____ BANK / LIMITED registered in India under _____ Act and having one of our Local Head Office at _____ do hereby.

1) Guarantee to the Government

a) Due performance and observance by the contractor of the term's covenants and conditions on the part of the contractor contained in the said Agreement, **AND**
b) , Due and punctual payment by the Contractor to the Government of all sums of money, losses, damages, costs, charges, penalties, and expenses payable to the Government by the contractor under or in respect of the said Agreement.

2) Undertake to pay to the Government on demand and without demur and notwithstanding any dispute or disputes raised by the Contractor (s) in any suit or proceeding filed in any Court or Tribunal relating thereto the said Sum of Rs _____ (Rupees _____ only) or such less sum as may be demanded by the Government from us our liability hereunder being absolute and unequivocal and agree that.

3) a) The guarantee herein contained shall remain in full force and effect during the subsistence of the said Agreement and that the same will continue to be

enforceable till all the dues of the Government under or by virtue of the said Agreement have been duly paid and its claims satisfied or discharged and till the Government certifies that the terms and conditions of the said Agreement have been fully properly carried out by the contractor.

b) We shall not be discharged or released from the liability under this Guarantee by reasons of.

i) any change in the constitution of the Bank or the Contractor, or

ii) any arrangement entered into between the Government and the contractor with or without our consent.

iii) any forbearance or indulgence shown to the contractor,

iv) any variation in the terms, covenants or conditions contained in the said Agreement.

v) any time given to the Contractor or

vi) any other conditions or circumstances under which, in law, a surety would be discharged.

c) Our liability hereunder shall be joint and several with that of the Contractor as if we were the Principal debtors in respect of the said Sum of Rs._____(Rupees _____only) AND

d) We shall not revoke this guarantee during its currency except with the previous consent in writing of the Government.

IN WITNESS WHERE OF the Common Seal of _____has been hereunto affixed this _____day of _____2012 The Common seal of _____was pursuant to the resolution of the Board of Directors of the Company dated the _____day of _____herein affixed in the presence of who, in token thereof, have hereto set their respective hands in the presence of-

1) _____

2) _____

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

10.0

**GUARANTEE BOND FOR SECURITY DEPOSIT
(On Stamp paper Worth Rupees 50/-)**

In consideration of the Governor of Maharashtra (hereinafter referred to as "the Governor") having agreed to exempt----- (hereinafter Referred to as "the Contractor") from depositing with the Government in Cash the sum of Rs. -----
.....(Rupees..... only)

Being the amount of security Deposit payable by the Contractor to the Government under the terms and conditions of the Agreement dated the -----
-day of ----- and made between the Government of the one part the contractor of the other part (Hereinafter referred to as; "the said Agreement") for-----as security for the observance and performance by the contractor of the term and conditions of the said agreement on the furnishing the Govt. A guarantee in the prescribed form of a secluded bank in Indian being in fact these presents in the like sum of Rs. ----- (rupees----- under -----
----- Act and having one of our Local Head Office at -----
----- do hereby.

1) Guarantee to the Government

a) Due performance and observance by the contractor of the term's covenants and condition of the part of the contractor contained in the said Agreement **AND**
b) Due and punctual payment by the contractor of the Government of all sums of money, losses, damages, costs, charges, penalties, and expenses payable to the Government by the contractor under or in respect of the said Agreement.

2) Undertake to pay to the Government on demand and without demur and not withstanding any dispute or disputes raised by the contractor in any suit or proceeding filed in any Court or Tribunal relating thereto the said sum of Rs. ----

.....-(Rupees-..... only) or such less

sum as may be demanded by the Government from us liability hereunder being absolute and unequivocal and agree that.

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER

3) a) The guarantee herein contained shall remain in full force and effect during the subsistence of the said Agreement and that the same will continue to be enforceable till all the duties of the Government under or by virtue of the said Agreement have been duly paid and its claims satisfied or discharged and till the Government certifies that the terms and conditions of the said Agreement have been fully properly carried out by the contractor.

b) We shall not be discharged or released from the liability under this guarantee by reasons of

i) Any change in the constitution of the Bank or the contractor or

ii) Any agreement entered into between the Government and the contractor with or without our consent.

iii) Any forbearance or indulgence shown to the contractor.

iv) Any variation in the terms, covenants or conditions contained in the said Agreement; or

v) Any time given to the contractor or

vi) Any other conditions or circumstances under which in law a surety would be discharged.

c) Our liability hereunder shall be joint and several with that of the contractor if we were the principal debtors in respect of the said Sum of Rs ----- (Rupees.....only) and

We shall not revoke this guarantee during its currency except with the previous consent in writing of the Government.

IN WITNESS WHERE OF the Common Seal of -----has been hereunto affixed this----- day of -----200 . The common seal of-----

--- was pursuant to the resolution of the Board of Directors of the Company dated the ----- day of ----- herein affixed in the presence of who in token thereof, have here to set their respective hands in the represented of.

1)

2).....-

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

11.0

DECLARATION OF THE CONTRACTOR

I/We hereby declare that I/We have made myself / ourselves thoroughly conversant with the local conditions regarding all materials such as stones murum, sand etc. and labor on which I/We have based my / our rates for this work. The specifications and lead for this work have been carefully studied and understood by me / us before submitting the tender. I/We undertake to use only the best materials approved by the Deputy Engineer (Civil) -in-charge of the work or his duly authorized representative before starting the work and to abide by his decision.

I hereby undertake to pay the laborer's engaged on the work as per Minimum Wages Act 1998 applicable to the Zone concerned.

Signature of the Contractor

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

12.0

TENDER DRAWINGS

(Please refer **Annexure 2** from the **Chapter 19**)

CONTRACT DRAWINGS

The Contract Drawings provided are preliminary and prepared only for tendering purpose with the tender documents shall be used as a reference only. Contractor should visualize the nature of type of work contemplated and to ensure that the rates and prices quoted by him in the bill of quantities take due consideration of the complexities of work involved during actual execution / consideration as experienced in the field. If required actual drawings shall be prepared & same should be vetted from IIT/NIT/VJTI for the successful execution of work well within the quoted cost only.

The tendered rates / prices for the work shall be deemed to include the cost of preparation, supply and delivery of all necessary drawings, prints, tracings and negatives which the contractor is required to provide in accordance with the contract.

DOCUMENTATION:

If so, ordered by the Executive in Charge/Deputy Engineer (Civil), the contractor will prepare drawings of the work before after execution and will supply original and their copies to the Engineer who will verify and certify these drawings.

Final as constructed drawings shall then be prepared by the contractor and applied in triplicate along with a micro-film of the same to the Engineer for record and reference purpose at the contractor's cost.

CONTRACTOR	NO. OF CORRECTIONS	DEPUTY ENGINEER (CIVIL)
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Tentative Tender Repair/Restoration BOQ as per the Latest Government Norms (PWD/MCGMSpecification)

Name of work: Repair and Upgradation of Studio 1, 2, 5, 7, 16 & Hospital Building at Dadasaheb Phalke Chitranagari, Goregaon (East), Mumbai – 400 065

PART-A SCHEDULE B (Please refer Separated Annexure 1 in Chapter No 16 for % Up or %down in Quoting the Price through Online Price Bid Excel Sheet)

Quantity	I.No.	Description of Item	Rate In		Unit	Amount
			Figures	words		
Part - B (QC & Royalty Charges)						
		Royalty Charges				
967.81		For All Other Minerals - Road	216.18	Rupees Two Hundred Sixteen AndPaise Eighteen Only.	Per Cubic Metre	2,29,729.06
101.71		For All Other Minerals - Box Cell	216.18	Rupees Two Hundred Sixteen AndPaise Eighteen Only.	Per Cubic Metre	21,987.67
		Quality Control Testing charges				
8		1) CEMENT:- Standard Consistency, Fineness, Specific Gravity, Setting Time (Initial & Final), Compressive Strength, Soundness	3770.00	Rupees Six Hundred Ninety And Paise Nil Only.	Per Number	30,160.00
		2) FINE AGGREGATES : Fineness Modulus (Sieve Analysis), Silt & Clay Content	1380.00	Rupees One Thousand One Hundred Seventy And Paise NilOnly.	Per Number	11,040.00
		3) FINE AGGREGATES : Fineness Chloride & Sulphate Content	795.00	Rupees Sixteen Thousand Two Hundred Fifty And Paise Nil Only.	Per Number	6,360.00
		4) FINE AGGREGATES : Silt Factor	850.00	Rupees Seven Thousand Four Hundred Ninety And Paise Nil Only.	Per Number	6,800.00
		5) WATER: PH Value, Sulphate & Chloride Content	3.00	Rupees Three Thousand One Hundred Thirty Five And Paise Nil Only.	Per Number	21.00
		6) STEEL ANTI CORROSIVE TEST: Chemical Resistance Test	2390.00	Rupees Six Hundred Ninety And Paise Nil Only.	Per Number	16,730.00
		7) STEEL ANTI CORROSIVE TEST: Salt Spray Test.	1485	Rupees Two Thousand Six HundredAnd Paise Nil Only.	Per Number	10,395.00
		8) STEEL BAR TESTING: Upto 16 mm	1275	Rupees Two Thousand Twenty And Paise Nil Only.	Per Number	7,650.00
		9) BASIC TEST OF AGGREGATE: Water Absorption, Specific Gravity, Impact Value, Crushing Value	2600	Rupees Eight Hundred Fifty And Paise Nil Only.	Per Number	10,400.00
		10) CONCRETE: Compressive Strength OF C.C. Cube	690	Rupees Six Hundred Ninety And Paise Nil Only.	Per Number	31,050.00
		11) CONCRETE: Concrete Mix Design	13755	Rupees Three Thousand Seven Hundred Seventy and Paise NilOnly.	Per Number	82,530.00
		12) STONE/ RUBBLE: Crushing Value/Compressive Strength, Water Absorption & Specific Gravity	2020	Rupees Six Hundred Ninety And Paise Nil Only.	Per Number	10,100.00
				TOTAL AMOUNT		4,74,952.73

- **Note: The Quoted Rates of Contractor is only applicable to Part A of Schedule B**

Assistant Engineer

MFSCDCL

Deputy Engineer (Civil)

MFSCDCL.Goregaon

Penalty Condition for DLP with FCAMC Period

Contractor has to attend emergency break down calls with skilled staff for 24x7 within 2 hours after in timation & fault shall be nullified before 12 hours after attend ance of the fault failing to do so willim pose the penalty of Rs. 1000.00 Per Day.

Defect Liability Period (For Electrical Work)		
Sub Work	Name of the work	Defect liability period
Sub work-1	Internal Electrification	12 Month for EI & 36 Month for LED fixtures After successful commissioning of system
Sub work-2	LV system	12 Month After successful commissioning of system
Sub work-3	Street Light System	36 Month After successful commissioning of system
Sub work-4	Air Conditioning System	12 Month After successful commissioning of system
Sub work-5	Water PUMP	12 Month After successful commissioning of system
Sub work-6	Lift & Allied works	12 Month After successful commissioning of system
Defect Liability Period (For Civil Work)		
Sub work-1	All Civil Works	12 Month After successful commissioning of system

Affidavit (On Rs.100/- Stamp Paper)

I..... age

Address.....

..... (Authorize signatory to sign the contract), hereby submit, vide this affidavit in truth, that I am the owner of the contracting firm...../

Authorized signatory and I am submitting the documents in envelope no.1 for the purpose of scrutiny of the contract. I hereby agree to the conditions mentioned below:-

1. I am liable for action under penal code for submission of any false/ fraudulent paper/information submitted in the envelope no.1
2. I am liable for action under Indian Penal code if during contract period and defect liability period, any false information, false bill of purchases supporting proof of purchases, proof of testing submitted by my staff, subletting company or by myself, I will be liable for action under Penal code.
3. I am liable for action under Indian Penal Code if any Paper are found false/ fraudulent during contract period and even after the completion of contract (Finalization of Final Bill)

(To be submitted on Stamp paper of Rs.500/-)

MEMORANDUM OF UNDERSTANDING FOR JOINT VENTURE AGREEMENT FOR

Name of work _____

DEED OF PARTNERSHIP

(JOINT VENTURE OF _____ AND _____)

This Memorandum of Understanding for Joint Venture Agreement made and entered into at on his _____ by and between:

Party No.1

1) Prime Contractor _____

AND

Party No.2

2) JV Partner

A) _____

B) _____

C) _____

D) _____

DEFINATIONS :-

In this deed, the following words and expression shall have meanings set out below:

"The Joint Venture" ("JV" for short) shall mean "Joint Venture (JV)" and Joint Venture collectively acting in collaborations for the purpose of this agreement.

"Apex Co-ordination Body (ACB)" shall mean the body comprising Director of the Parties to the Joint Venture"

"The Owner" shall mean Proprietor or Partner or Director.

"The Works" shall mean is:-

Name of work _____

"The Contract" shall mean the contract entered into or to be entered into between the "Joint Venture" and "The Owner" for the works.

JOINT VENTURE (JV)

(Whereas the Parties hereto declare that, they agree and undertake to form a Joint Venture for the purpose of Execution of the works, as an integrated Joint Venture. The JV shall be called as **"JOINT VENTURE"** for short) Provided that the Parties are Not under this agreement entering into any permanent Partnership or Joint Venture to tender or undertake any contract other than the subject works. Nothing herein contained shall be considered to construe the Parties or Partners to constitute either Party the agent of the other.

WITNESSES

WHEREAS **The Deputy Engineer, MFSCDCL Electrical Division, Goregoan**” herein after referred as the **The Deputy Engineer**, have invited Tenders for the work of

Name of work _____

Hereinafter referred as “**The Works**”

Whereas PARTY NO. 1 and PARTY NO. 2 wish to execute the Contract, if awarded as per the terms of this indenture. Now, therefore this Deed of Partnership witnesses as follows :-

- 1) That, these recitals are and shall be deemed to have been part and parcel of the present MOU for JV.
- 2) That, this MOU shall come into force from the date of this MOU i.e. the day of

- 3) That, the operation of this MOU for JV firm concerns and is confined to “the works” only.

- 4) That, the name of the Joint Venture firm shall be _____ **and JV.**

- 5) That, PARTY NO. I and PARTY NO. II shall jointly execute the works according to all terms and conditions as stated in the relevant instructions contained in the Bid Documents / Contract as an integrated JV styled as

Name of work _____

That, this MOU for JV shall regulate the relations between the parties and shall include without being limited to them the Following conditions.

- a) _____ shall be the lead Company In charge of the Joint Venture for all intents and purpose.

- b) The parties hereto shall jointly and severally liable to PWD for all acts, deeds and things pertaining to the Contract. The Contract for the works shall be signed by

Name of Authorized Signatory of _____ **& JV.**

- d) That the Director of one of the parties of the JV, _____ shall be the lead Partner of the JV firm and shall have the Power to Control and Manage the Affairs of the _____ **& JV.**

- e) That, on behalf of the Joint Venture Lead

Partner _____ has the Authority to incur liabilities, Receive instructions and payments, sign and execute the Contract for and on behalf of the Joint Venture. All payments made under the contract shall be made into the Joint Venture's bank account.

- e) One or two Bank accounts shall be opened in the name of JV to be operated by the Joint Signatory by representative of both the Partner of Joint Venture.

- f) That each of the parties to the JV agrees and undertake to place at the disposal of the JV benefits of its individual experience, technical knowledge and skill and shall in all respects bear its share of the responsibility including the provision of information, advice and other assistance required in connection with the works. The share and the participation of the partners in the JV shall broadly be as follows:-

Name of Contractor Share of Percentage

1. **Prime Contractor** _____

2. Other Partners

A) _____

B) _____

C) _____

D) _____

Total 100%

And all rights, interests, liabilities, obligations, works experience and risks (and all net profit or net losses) arising out of the contract shall be shared or borne by the Parties in proportion to these share. Each of the parties shall furnish its proportionate share in any bonds, guarantees, sureties required for the works as well as its proportionate share in working capital and other financial requirements, all in accordance with the decisions of the Apex Coordinating body.

g) Any loan/advances shall be shared by the PARTY NO. I and PARTY NO. II in the ratio of _____ respectively.

h) All funds, finance or working capital required for carrying out and executing, the works or contract shall be procured and utilized by the parties are mutually agreed by them and they shall be liable and responsible for the same. Initial Capital of The JV firm shall be Rs.....

i) The execution of the work on the site will be managed by a Project Manager. The Project Manager shall be authorized to represent the JV on site in respect of matters arising out or under the contract.

j) The PARTY NO. I and PARTY NO. II shall be jointly and severally liable towards the owner for the execution of the contract commitment in accordance with contract conditions.

k) The JV shall be registered with the Registrar of Firms / Company, Maharashtra State. Prior written approval of PWD Maharashtra Govt. shall be obtained before any changes are proposed to be made in this Joint Venture Agreement, once it is registered with the Registrar of firms / Company, Maharashtra State.

l) This Joint Venture Agreement shall not be dissolved till the completion of the defect liability period as stipulated in the Tender Document conditions of the works and till all the liabilities thereof are liquidated.

m) That, no party to the JV has the right to assign any benefit, obligation or liability under the agreement to any third party without obtaining the written consent of the other partner and PWD Maharashtra Govt.

n) Bank account (s) in the name of the Joint Venture firm may be opened with any Nationalized / Scheduled Bank / Banks approved by GoM and the representatives of both partners are authorized to operate upon such accounts jointly.

o) That, the parties to the JV shall be responsible to maintain or cause to maintain proper Books of Accounts in respect of the business of the JV firm and the same shall be closed at the end of the every financial year.

p) That the financial year of the firm shall be the year ended on the 31st day of March every year.

q) That upon closure of the books of account, balance sheet and profit and loss account, as to the state of affairs of the firm, as at the end of the financial year and as to the profit or loss made, or incurred by the firm

CONTRACTOR

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for the year ended on that date respectively, shall be prepared and the same shall be subject to audit by a Chartered Accountant.

LEGAL JURISDICTION

All matters pertaining to or emanating from this JV agreement involving the owner shall be subject to jurisdiction or High Court of Judicature, at Mumbai.

NOTICE AND CORRESPONDANCE

All correspondence and notices to the JV shall be sent to the following address:

IN WITNESS WHERE TO the parties have caused their duly authorized representative to sign below:

Sign for and on behalf of
Prime Contractor

Sign for and on behalf of
JV Partner E.I Work

Sign for and on behalf of
(JV Partner.....)

Sign for and on behalf of
(JV Partner.....)

Sign for and on behalf of
(JV Partner)

Witness

- 1.
- 2.

CONTRACTOR

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DEPUTY ENGINEER (CIVIL)

“UNDERTAKING”

Name of Work

I / We hereby give the undertaking that we have never been Blacklisted / Banned / Suspended by any Govt.-Semi Govt. Department or any other institution / organization.

Name of Contractor. :

Contractor Signature

17.

Annexure 5.

Certificate of Geo-tagging. (Duly signed by Bidder and Dy. Engineer Civil)

1) Name of work Repair and Upgradation of Studio 1, 2, 5, 7, 16 &
Hospital Building at Dadasaheb Phalke Chitranagari,
Goregaon (East), Mumbai – 400 065 (Civil and Electrical
Works)

2) Tender Notice No.-----

3) Name of Person visiting to the site -----

4) Date of Visit -----

5) Time of Visit ----- to -----

I have uploaded geo-tagged photos in envelope no.1 along with thos certificate.

I have visited /studied scope of work, site conditions,verified provisions in Tender
documents, resources available and difficulties / restrictions of site in all respect

(Signature of Bidder /authorized representative)

(Signature of Deputy Engineer Civil)
Deputy Engineer
(Civil/MFSCDCL)
Goregaon Mumbai

Technical Bid Cover Letter

To,
Deputy Engineer (Engineering),
MFSCDCL, Dadasaheb
Phalke Chitranagari,
Goregaon East – 400065

Name of work: Repair and Upgradation of studio 1,2,5,7,16 & Hospital
Building at Dadasaheb Phalke Chitranagari, Goregaon (East)
Mumbai -400065(Civil and Electrical

Sir,
I/We _____ (duly authorised representative of Company/Organization/Firm)
enclose herewith Technical Proposal to be considered for the above work. I/We undertake and hereby
certify that all the particulars submitted as a part of the Technical Proposal and the documents enclosed
therein are true and correct to the best of my/our knowledge and belief. I/We fully understand that if any of
the details are found incorrect/untrue, the offer shall be summarily rejected.

I/We have thoroughly read and understood the Instructions to Offerers/Bidders and the Terms and
Conditions of agreement given in the Offer Document, which in token of acceptance thereof, have been
signed by me/us and I/We hereby agree to duly abide by them. I/We have studied the site conditions, site
constraints and have made my/our own assessment of potential at the location specified by you.

As required by the Terms of Conditions of Offer, I/We submit the earnest money of INR _____/-
online. Furnished the following details of Earnest Money Deposit:

Signature of Authorised Signatory (with official seal) & Date

Name :
Designation :
Address :
Telephone :
Fax :
E-mail address :

ESTIMATE

**ESTIMATE FOR REPAIR AND UPGRADATION OF STUDIO 1,2 & Hospital BUILDING AT DADASAHEB PHALKE
CHITRANAGARI, GOREGAON (EAST), MUMBAI – 400 065**

ABSTRACT SHEET

Item No.	Description	Unit	Qty.	Rate	Amount
A1	Civil Work for upgradation of existing Structure				
1.00	DEMOLITION WORK				
1.01	Removing brick bat coba including stacking the spoils as directed with all leads, lifts etc, complete.	Sqm	QRO	664.65	0.00
1.02	Removing doors and windows with frames and stacking the materials as directed with all leads, lifts etc. complete.	No.	53.00	163.80	8,681.40
1.03	Removing ventilators and small windows with frame and stacking the materials with all leads, lifts etc. complete.	No.	35.00	138.60	4,851.00
1.04	Removing cement tiles, or marble or polished shahabad floor or dado without bed concrete including stacking the materials as directed with all leads, lifts etc. complete	Sqm	2660.00	47.25	1,25,685.00
1.05	Removing earthen, stonewate pipe and stacking them as directed with all leads, lifts etc. complete.	RMT	QRO	23.10	-
1.06	Removing cast iron or wrought iron or A.C. pipe and stacking them as directed with all leads, lifts etc. complete.	RMT	QRO	23.10	-
1.07	Dismantling the R.C.C. Work 1:2:4 and sorting out the materials such as steel etc. as directed and stacking them within the specified lead as directed etc. complete.	Cum	30.00	1523.55	45,706.50
1.08	Removing urinal pans or wash hand basins with frame including disconnecting the sanitary and water supply connections, removing the same carefully and stacking the serviceable materials as and where directed including throwing the unserviceable materials outside etc complete	No	17.00	100.80	1,713.60
1.09	Removing W.C. pans including disconnecting the sanitary and water supply connections, removing and breaking flooring and bed con-crete around pan removing the same carefully and stacking the serviceable materials as adn where directed including throwing the unserviceable materials out side etc. carefully and throwing out the refusal outside etc. complete.	No	13.00	217.35	2,825.55
1.10	Removing chockes and leakages from down take G.I/CI/PVC pipe line on walls floor level by using zoola / scaffolding and rectify the same for functioning with all lifts etc. complete.	No	QRO	328.65	-
1.11	Manualy clearing the chockes from under ground drainage line including Inspection chambers with the help of required tools for propre functioning line chamber to chamber etc. complete.	No	QRO	51.45	-
1.12	Manualy clearing by removeing the chockes from Nahni Trap, Gully Trap, Wash basin unit, Sink and WC with the help of required tools for proper functioning the same etc. complete.	No	QRO	195.30	-

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DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
1.13	Lowering down the debris obtained from breaking and removing the cement plaster / burnt brick masonry of the first floor by any means without causing dust nuisance and damage to structure, stacking the same as and where directed including cleaning the site complete.	Cum	QRO	789.60	-
1.14	Dismantling aluminium/ Gypsum partitions, doors, windows, fixed glazing and false ceiling including disposal of unserviceable surplus material and stacking of serviceable material with in 50 meters lead as directed by Engineer-in-charge.	Sqm	63.00	42.00	2,646.00
1.15	Removing Existing Mangalore tiles / AC / GI / Galvalume Sheets/polycarbonate plain and corrugated sheets from roof / cladding / partitions etc., excluding supporting structure but including scaffolding, handling, transporting, sorting and stacking at site lead up to 150m and or disposing etc complete as directed.	Sqm	2305.00	127.00	2,92,735.00
2.00	EARTHWORK				
2.01	Excavation for foundation in earth, soil of all types, sand, gravel and soft muRmt, including removing the excavated material up to a distance of 50 m. beyond the building area and stacking and spreading as directed, dewatering, preparing the bed for the foundation and necessary back filling, ramming, watering including shoring and strutting etc. complete. (Lift upto 1.5 m.) By Mechanical Means	Cum	296.00	217.35	64,335.60
2.02	Excavation for foundation in earth, soil of all types, sand, gravel and soft muRmt, including removing the excavated material up to a distance of 50 m. beyond the building area and stacking and spreading as directed, dewatering, preparing the bed for the foundation and necessary back filling, ramming, watering including shoring and strutting etc. complete. (Lift 3.0 m. to 4.5 m) By Mechanical Means	Cum	296.00	270.90	80,186.40
2.03	Excavation for foundation in earth, soil of all types, sand, gravel and soft muRmt, including removing the excavated material up to a distance of 50 m. beyond the building area and stacking and spreading as directed, dewatering, preparing the bed for the foundation and necessary back filling, ramming, watering including shoring and strutting etc. complete. (Lift 3.0 m. to 4.5 m) By Mechanical Means	Cum	65.00	343.35	22,317.75
2.04	Providing dry/trap/granite/quartzite/gneiss rubble stone soling 15 cm to 20 cm thick including handpacking and compacting etc.complete.	Cum	18.00	1451.10	26,119.80
3.00	CONCRETE WORK				
3.01	Providing and laying Cast in situ/Ready Mix cement concrete in M15 of trap/granite/quartzite/gneiss metal for foundation and bedding / steps including steel centering, formwork, laying/pumping, compacting, roughening them if special finish is to be provided, finishing uneven and honeycombed surface and curing etc. complete. The Cement Mortar 1:3 plaster is considered for rendering uneven and honeycombed surface, only. Newly laid concrete shall be covered by gunny bag, plastic, tarpaulin etc. (Wooden centering will not be allowed.), with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)	Cum	8.00	7417.28	59,338.24

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
3.02	Providing and laying Cast in situ/Ready Mix cement concrete M-25 of trap / granite/quartzite/ gneiss metal for R.C.C. work in foundations like raft, strip foundations, grillage and footings of R.C.C. columns and steel stanchions etc. including bailing out water, Steel centering, formwork ,cover blocks, laying/pumping, compaction and curing roughening the surface if special finish is to be provided (Excluding reinforcement and structural steel) etc. complete, with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)	Cum	43.00	8362.76	3,59,598.51
3.03	Providing and fixing in position TMT - FE - 500 bar reinforcement of various diameters for R.C.C. pile caps, footings, foundations, slabs, beams columns, canopies, staircase, newels, chajjas, lintels pardis, copings, fins, arches etc. as per detailed designs, drawings and schedules. Including cutting, bending, hooking the bars, binding with wires or tack welding and supporting as required complete.	MT	59.00	94188.15	55,57,100.85
3.04	Providing and applying "high strength, non shrink free flow grout material" i. e. micro concrete (like shrink comp or equivalent) having compressive strength as 400 Kilogram/sq.cm. including finishing the surface and curing for 07 days. Etc complete. The usage of this non shrink concrete with zero slump is to allow to occupy every free space leaving no voids, thereby producing dense concrete with proper bonding with concrete (The quoted rates to be inclusive of all materials, labours, tools & tackles, transportation, taxes etc complete) to be applied for foundation and strengthening of pier etc and as per the direction of Site-In-Charge. (The product like Ultratech/Rendroc (RGL) of FOSROC or its equivalent)	Cum	1.00	70350.00	70,350.00
4.00	PLASTERING AND PAINTING WORK				
4.01	Providing internal cement plaster 12mm thick in single coat in cement mortar 1:3 without neeru finish to concrete or brick surfaces, in all position including scaffolding and curing etc. complete.	Sqm	QRO	317.12	-
4.02	Providing waterproof plaster in W.C. and bath 12 mm thick for dado in cement mortar 1:3 with neat finishing, floating using waterproofing compound at the rate of 1 Kilogram. per bag of cement of approved make and manufacturer and curing etc. complete. (Excluding Tiles) (As directed by Engineer in Charge)	Sqm	QRO	420.02	-
4.03	Providing and applying two coats of synthetic enamel paint of approved colour to new /old structural steel work and wood work in buildings, including scaffolding if necessary, cleaning and preparing the surface (excluding primer coat) etc. complete.	Sqm	QRO	100.80	-
4.04	Providing and applying Texture plaster with finishing with texture material of approved make in 3 to 4 millimeter thickness on previously plastered surface, including Plaster Groove 6mm thickness or Tape Grooves 35 to 45 mm thickness or as required, in all position including preparing the surface, scaffolding etc. complete.	Sqm	896.00	659.40	5,90,822.40
4.05	Providing and applying Two coats of wall care Putty on plastered surface and Ceiling and Walls to prepare surface even and smooth of approved make, etc complete. As directed by Engineer in charge	Sqm	QRO	94.50	-
4.06	Providing and applying two coats of textured synthetic paint of approved shade and quality and one coat of primer before applying textured paint including scaffolding if necessary preparing surface by thoroughly cleaning oil, grease, dirt and other materials as required, etc. complete.	Sqm	QRO	171.15	-

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
4.07	Providing and applying two coats of exterior acryallic emulsion paint confirming to corresponding I.S. of approved manufacture and of approved colour to the plastered surfaces including cleaning, preparing the plaster surface, applying primer coat, scaffolding if necessary, and watering the surface for two days etc complete.	Sqm	QRO	274.05	-
4.08	Providing and applying priming coat on concrete/ masonry/ Asbestos Cement plastered surfaces including scaffolding if necessary, preparing the surface by thoroughly cleaning oil, grease, dirt and other foreign matter and sand papering as required etc. complete.	Sqm	6417.00	37.80	2,42,562.60
4.09	Providing and applying plastic emulsion paint of approved quality, colour and shade to old and new surfaces in two coats including scaffolding, preparing the surface. etc. complete.	Sqm	6051.00	84.00	5,08,284.00
4.10	Providing and applying two coats Apex Ultima Puranature Anti-Pollution Or equivalent approved brand, paint should decomposes organic substances and inorganic gases(NOx, VOC's, CO, SOx, formaldehydes, etc.) in presence of natural or artificial light. It contains Graphene and nanoparticles of titanium oxide. and Absorbs CO2 (4.8 Kilogram/15 l). plaster crack should be filled by Acrylic base Crack seal/Textured Crack filler, Paint has to applied on one coat of Apex Ultima Puranature Anti-Pollution Primer or Equivalent. Warranty Should be given by the Manufaturer The work should be done by the Manufacturer Recommended applicator and he should be able to furnish stage wise onsite technical reports from the concerned company technologist.	Sqm	896.00	390.60	3,49,977.60
4.11	Providing and fixing 450mm x 550mm size superior type Belgium mirror with 16mm dia. nickel plated towel rod etc. complete.	No	QRO	904.05	-
4.12	Providing and Laying hot applied thermoplastic road marking strip on Bituminous Surface of specified shade/ colour of 2.5 mm thick including 1.5 Refractive index reflectorizing glass beads @ 250gm/sqm .Thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC 35:2015. Initial Dry reflectivity RL shall be > 250 mcd/sqm/lux measured in the initial 7 days and sustained reflectivity RL of 100 mcd/sqm/ lux and Qd of 100 mcd/sqm/ lux measured at the end of 2 years by means of a Standard Reflectometer of Zehntner, EasyLux, Delta make capable of measuring RL & QD both according to IRC 35:2015 clause 15.5. The finished surface to be level, uniform, and free from streaks and holes complete as per direction of Engineer-in-charge and in accordance with applicable specifications.(Refer MORTH Clause 803 for technical Specification and Performance for IRC 35:2015).	Sqm	29.00	699.30	20,279.70
5.00	PAVING FLOORING AND DADO				
5.01	Providing and fixing machine cut machine polished 18 mm to 20 mm thick telephone black / Amba White / Cat bary brown / RBI red / Ocean Brown granite stone for treads and risers of steps and staircases of approved colour and shade with rounded moulding and three grooved line for the treads on bed of 1:4 Cement mortar including float filling joints with neat cement slurry curing polishing and cleaning etc. complete.	Sqm	163.00	4398.82	7,17,008.01
5.02	Providing and laying vitrified mirror /glossy finish tiles having size 590 mm to 605 mm x 590 mm to 605 mm of 8 to10 mm thickness and confirming to IS.15622 -2006 (group Bla) of approved make, shade and pattern for dado and skirting in required position fixed in 1:4 cement mortar including neat cement float, filling joints, curing and clearing etc. complete	Sqm	1107.00	2054.93	22,74,807.03

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
5.03	Providing and laying vitrified matt finish tiles having size 590 mm to 605 mm x 605 mm of 8 to 10 mm thickness and confirming IS. 15622-2006 (Group Bla) of approved make, shade and pattern for flooring in required position laid on a bed of 1:4 cement mortar including neat cement float, filling joints, curing and cleaning etc. complete.	Sqm	2461.00	1698.22	41,79,324.77
5.04	Providing and laying vitrified rustic matt stone finish tiles having size 590 mm to 605 mm x 590 mm to 605 mm of 8 to 10mm thickness and confirming to IS. 15622-2006 (Group Bla) of approved make, shade and pattern for flooring in required position laid on a bed of 1:4 cement mortar including neat cement float, filling joints, curing and cleaning etc. complete.	Sqm	QRO	1875.67	-
5.05	Providing and laying vitrified rustic matt stone finish tiles having size 590 mm to 605 mm x 590 mm to 605 mm to 8 to 10mm thickness and confirming to IS. 15622-2006 (Group Bla) of approved make, shade and pattern for dado and skirting in required position fixed in 1:4 cement mortar including neat cement float, filling joints, curing and cleaning. etc. complete.	Sqm	QRO	1954.42	-
5.06	Providing and fixing green marble of 18 to 20 mm thick for door frame/ dado/ window boxing etc. On C.M. 1:6 including filling joints with polymer base filler nosing / moulding the sharp edges wherever necessary, curing, etc. complete.	Sqm	QRO	2503.57	-
5.07	Providing and fixing heavy duty inter locking concrete Grey paving blocks of 60 mm thickness of having a strength of 300 Kilogram/Sq.cm. of approved quality and shape on a bed of crushed sand of 25 to 30 mm thick including skirting joints and cleaning etc. complete.	Sqm	550.00	882.00	4,85,100.00
5.08	Providing and fixing heavy duty inter locking concrete Grey paving blocks of 80 mm thickness of having a strength of 300 Kilogram/Sq.cm. of approved quality and shape on a bed of crushed sand of 25 to 30 mm thick including skirting joints and cleaning etc. complete.	Sqm	QRO	1083.60	-
5.09	Providing and fixing heavy duty inter locking concrete Coloured paving blocks of 60 mm thickness of having a strength of 300 Kilogram/Sq.cm. of approved quality and shape on a bed of crushed sand of 25 to 30 mm thick including skirting joints and cleaning etc. complete	Sqm	QRO	964.95	-
5.10	Providing and fixing heavy duty inter locking concrete Coloured paving blocks of 80 mm thickness of having a strength of 300 Kilogram/Sq.cm. of approved quality and shape on a bed of crushed sand of 25 to 30 mm thick including skirting joints and cleaning etc. complete	Sqm	QRO	1224.30	-
5.11	Providing and laying Vitrified mirror/glossy finish having decorative type of size 590 millimeter to 605 millimeter x 590 millimeter to 605 millimeter of 8 to 10 millimeter thickness (on a existing flooring) with bonding chemical and confirming to IS 15622-2006 (Group Bla) of approved make shade and pattern for flooring in required position laid on a bed of bonding chemical filling joints curing and cleaning etc . complete.	Sqm	QRO	1277.85	-
5.12	Providing and laying Vitrified MATT finish having decorative type of size 600 millimeter x 600 millimeter of 8 to 10 millimeter thickness (on a existing flooring) with bonding chemical and confirming to IS 15622-2006 (Group Bla) of approved make shade and pattern for flooring in required position laid on a bed of bonding chemical filling joints curing and cleaning etc .complete.	Sqm	QRO	1717.80	
5.13	Providing and laying Vitrified RUSTIC MATT STONE finish having decorative type tiles of size 600 millimeter x 600 millimeter of 8 to 10 millimeter thickness (on a existing flooring) with bonding chemical and confirming to IS 15622-2006 (Group Bla) of approved make shade and pattern for flooring in required position laid on a bed of bonding chemical filling joints curing and cleaning etc. complete.	Sqm	QRO	1849.05	

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
5.14	Providing and laying Vitrified STONE EFFECT FINISH having decorative type tiles of size 590 millimeter to 605 millimeter x 590 millimeter to 605 millimeter of 8 to 10 millimeter thickness (on a existing flooring) with bonding chemical and confirming to IS 15622-2006 (Group Bla) of approved make shade and pattern for flooring in required position laid on a bed of bonding chemical filling joints curing and cleaning etc. complete.	Sqm	QRO	1895.25	-
5.15	Providing and laying telephone black / Amba White / Cadburybrown / Ruby red / Ocean Brown granite stone of 18 to 20 mm thick for door frame/ dado/ window boxing etc. On C.M. 1:6 including filling joints with polymer base filler nosing/moulding the sharp edges wherever necessary, curing, etc. complete.	Sqm	QRO	4605.30	-
5.16	Providing & fixing 20mm +/- 2mm thick both side mirror polished approved colour Granite Urinal partitions of 600 mm wide & 1550 mm high with round edges moulding and fixed in C.M. 1:2and filling joints in white cement mixed with pigment to match the colour of granite including curing, cleaning etc.complete.(Basic Rate Rs 3600/sqm)	No.	QRO	6522.00	-
5.17	Providing and fixing white vitreous china flat back half stall urinal of size 580x380x350mm with white PVC automatic flushing cistern,with fittings, standard size C.P. brass flush pipe, spreaders with unions and clamps (all in C.P. brass) with waste fitting as per IS :2556, C.I. trap with outlet grating and other couplings in C.P. brass including painting of fittings and cutting and making good the walls and floors wherever required :				
a.	Range of two half stall urinals with 5 litre P.V.C. automatic flushing cistern.	Each	QRO	16845.00	-
b.	Range of three half stall urinals with 10 litre P.V.C. automatic flushing cistern.	Each	QRO	21081.00	-
5.18	Providing & Fixing in position, Carpet more than 800+ gsm, made with100% stain proof fibres of approved make along with 5mm underlay as per Architectural & Acoustical Design & Instructions & Complete in all aspects including all materials labour,finishing etc complete	Sqm	QRO	1522.50	-
5.19	Providing and fixing 15 to 20mm thk. rough natural stone tiles as specified below of approved quality, pattern and colour for flush/projected skirting and risers including preparing the surface and levelling in the desired line, backing of 20 thk. cement mortar in porportion 1:3, square cut top edge or chamfered top edge in cement mortar 1:3, cement float, machine cutting, leveling, jointing, filling the joints with neat cement or pigment mixed with cement, polishing, finishing, curing etc complete as directed by Engineer In Charge.	Rmt	QRO	603.00	-
6.00	SANITARY FIXTURES				
Note:-	All sanitary fixtuers will be of Hindware/Rocca and C.P fixtures will be Jaguar Make				
6.01	Providing and fixing white vitreous china flat back or wall corner type lipped front urinal basin of 430x260x350mm and 340x410x265mm sizes respectively with automatic flushing cistern with standard flush pipe and C.P. brass spreaders with brass unions and G.I clamps complete, including painting of fittings and brackets, cutting and making good the walls and floors wherever required :				
6.01(a)	Range of two urinal basins with 5 litre white P.V.C. automatic flushing cistern	Each	QRO	9190.00	-

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
6.02	Providing and fixing water closet squatting pan (Indian type W.C. pan) with 100mm sand cast Iron P or S trap, 10 litre low level white P.V.C. flushing cistern, including flush pipe, with manually controlled device (handle lever) conforming to IS : 7231, with all fittings and fixtures complete including cutting and making good the walls and floors wherever required :				
6.02(a)	White Vitreous china Orissa pattern W.C. pan of size 580x440mm with integral type foot rests.				
6.03	Providing and fixing white vitreous china pedestal type water closet (European type W.C. pan) with seat and lid, 10 litre low level white P.V.C. flushing cistern, including flush pipe, with manually controlled device (handle lever), conforming to IS : 7231, with all fittings and fixtures complete including cutting and making good the walls and floors wherever required :				
6.03(a)	W.C. pan with ISI marked white solid plastic seat and lid	Each	13.00	8007.00	1,04,091.00
6.01	Providing and fixing white vitreous china flat back or wall corner type lipped front urinal basin of 430x260x350mm and 340x410x265mm sizes respectively with automatic flushing cistern with standard flush pipe and C.P. brass spreaders with brass unions and G.I clamps complete, including painting of fittings and brackets, cutting and making good the walls and floors wherever required :				
6.01(a)	Range of two urinal basins with 5 litre white P.V.C. automatic flushing cistern	Each	QRO	9190.00	-
6.04	Providing and fixing wash basin with C.I. brackets, 15 mm C.P. brass pillar taps, 32 mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever required :				
6.04(a)	White Vitreous China Wash basin size 630x450 mm with a pair of 15 mm C.P. brass pillar taps.	Each	17.00	3858.00	65,586.00
6.05	Providing and fixing 600x450 mm bevelled edge mirror of superior glass (of approved quality) complete with 6 mm thick hard board ground fixed to wooden cleats with C.P. brass screws and washers complete.	Each	QRO	1919.00	-
6.06	Providing and fixing mirror of superior glass (of approved quality) and of required shape and size with plastic moulded frame of approved make and shade with 6 mm thick hard board backing Rectangular shape 1500x450 mm	Each	QRO	2770.00	-
6.07	Providing and fixing C.P. Brass two way bib cock with flange of approved quality and make.	Each	14.00	1116.00	15,624.00
6.08	Providing and fixing C.P. Handshower (health faucet) 1m. PVC tube with wall hook Jaquar make (Cat. No. ALD 563) including all fixtures, fittings and making good the wall wherever required etc. complete.	No.	14.00	1297.80	18,169.20
6.09	Providing and fixing C.P. Angular stop cock with wall flange Jaquar make or equivalent continental (CAT.NO. CON-059) including necessary sockets/union nut etc. complete. Spec No. As directed by Engineer in charge	No.	15.00	2821.35	42,320.25
6.10	Providing and fixing C.P. pillar cock long neck with aerator jaquar or equivalent make continental (CAT.NO. CON -021) including necessary sockets/union nut etc. complete. Spec No. As directed by Engineer in charge.	No.	15.00	1706.25	25,593.75
6.11	Providing and fixing JAQUAR MAKE, C.P. Towel rail 24" continental (Cat. No. ACN 1111N) including brackets, all fixtures, fittings and making good the wall wherever required etc. complete.	No.	8.00	1022.70	8,181.60
6.12	Providing and fixing JAQUAR MAKE, HOTELIER series Model No. 1551 Toilet Paper Holder Recessed type (S.Steel) including cutting and making good the wall wherever required etc complete	No	13.00	1690.00	21,970.00
6.13	Providing and fixing ISI marked make CP brass liquid soap dispensers with CP brass bracket capacity 250 ml.	No	13.00	2748.00	35,724.00
6.14	Providing & Fixing 100mm diameter Nahani trap Jali in steel finish with necessary fixing required to make the item well functional.	No	13.00	437.00	5,681.00

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
7.00	PLUMBING				
7.01	Providing and fixing on walls/ ceiling/ floor 15 mm dia. CPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	Rmt	QRO	279.30	-
7.02	Providing and fixing on walls/ceiling/floor 20 mm dia. CPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	Rmt	99.00	325.50	32,224.50
7.03	Providing and fixing on walls/ ceiling/ floor 25 mm dia. CPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	Rmt	QRO	393.75	-
7.04	Providing and fixing on walls/ ceiling/ floor 32 mm dia. CPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	Rmt	26.00	452.55	11,766.30
7.05	Providing and fixing on walls /ceiling/ floor 40 mm dia. CPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	Rmt	3.00	565.95	1,697.85
7.06	Providing and fixing on walls/ ceiling/ floor 50 mm dia. CPVC pipe with necessary fittings, remaking good the demolished portion etc. complete.	Rmt	4.00	778.05	3,112.20
7.07	Providing and fixing on walls/ceiling/floor 20 mm dia. uPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	Rmt	48.00	303.45	14,565.60
7.08	Providing and fixing on walls/ ceiling/ floor 25 mm dia. uPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	Rmt	12.00	372.75	4,473.00
7.09	Providing and fixing on walls/ ceiling/ floor 32 mm dia. uPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	Rmt	60.00	432.60	25,956.00
7.10	Providing and fixing on walls /ceiling/ floor 40 mm dia. uPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	Rmt	6.00	546.00	3,276.00
7.11	Providing and fixing on walls/ ceiling/ floor 50 mm dia. uPVC pipe with necessary fittings, remaking good the demolished portion etc. complete.	Rmt	30.00	758.10	22,743.00
7.12	Providing, fixing and testing heavy quality gun metal or brass ball valve with screwed ends 20kgm class on GI or copper pipe lines (Leader/ZOLOTO make) 20 mm (3/4") dia.	No	16.00	794.00	12,704.00
7.13	Providing, fixing and testing heavy quality gun metal or brass ball valve with screwed ends 20kgm class on GI or copper pipe lines (Leader/ZOLOTO make) 25 mm (1") dia.	No	QRO	1088.00	-

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NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
7.14	Providing, fixing and testing heavy quality gun metal or brass ball valve with screwed ends 20kgm class on GI or copper pipe lines (Leader/ZOLOTO make) 32 mm (1 1/4") dia.	No	12.00	1582.00	18,984.00
7.15	Providing, fixing and testing heavy quality gun metal or brass ball valve with screwed ends 20kgm class on GI or copper pipe lines (Leader/ZOLOTO make) 40 mm (1 1/2") dia.	No	QRO	2443.00	-
7.16	Providing, fixing and testing heavy quality gun metal or brass ball valve with screwed ends 20kgm class on GI or copper pipe lines (Leader/ZOLOTO make) 50 mm (2") dia.	No	2.00	3227.00	6,454.00
7.17	Providing and fixing in position uPVC/SWR (Soil/Waste/Rain) pipe of type-B 75 mm dia. in any position including all fittings and accessories, making joints / connections water tight with solvent cement, scaffolding if necessary and making good the damages if any (excluding excavation and refilling the trenches) etc. complete as specified and directed.(All fittings and accessories like clamps,etc. should be of same brand. No separate payment shall be made for fittings and accessories).	Rmt	191.00	271.00	51,761.00
7.18	Providing and fixing in position uPVC/SWR (Soil/Waste/Rain) pipe of type-B 110 mm dia. in any position including all fittings and accessories, making joints / connections water tight with solvent cement, scaffolding if necessary and making good the damages if any (excluding excavation and refilling the trenches) etc. complete as specified and directed.(All fittings and accessories like clamps,etc. should be of same brand. No separate payment shall be made for fittings and accessories).	Rmt	324.00	414.00	1,34,136.00
7.19	Providing and fixing in position uPVC/SWR (Soil/Waste/Rain) pipe of type-B 160 mm dia. in any position including all fittings and accessories, making joints / connections water tight with solvent cement, scaffolding if necessary and making good the damages if any (excluding excavation and refilling the trenches) etc. complete as specified and directed.(All fittings and accessories like clamps,etc. should be of same brand. No separate payment shall be made for fittings and accessories).	Rmt	437.00	981.00	4,28,697.00
7.20	Booster Pump system (At Terrace Level)	SET	1.00	420000.00	4,20,000.00
	Supply, Installation, Testing And Commissioning Of Compact Self Contained Skid Mounted factory fitted & factory tested Hydropneumatic Booster Pump System As Follows: In-Line, Multisage, centrifugal pumps with SS-304 casing and impeller and SS-316 shaft, CI base & head TEFC motor (with mechanical seal) (Vendor to submit performance curves and technical catalog of the proposed model for review & information) The pump shall be selected for performance at best efficiency point. However, the pump selection shall be suitable for performance with set point @ + 20% of the rated head. Flow rate : As described below Head : As described below Mtr Purpose : Domestic/ Flush/ DM/ Drinking water supply External Pump mounted or wall mounted microprocessor PID controller and frequency inverter integrated in a single body or as separate components 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 protocol through RS485 port (Variable Frequency Drive).				

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
	System should be capable to compensate for frictional losses at lower flows. All alarms should be displayed in the controller. System should be equipped with dry running protection. Quantity : 1 Nos. Complete (Skid mounted wall mounted / floor mounted) electrical control panel comprising of all accessories such as PLCs, pressure switches, pressure transducers, control wiring and any other necessary imports etc. (list to be provided by the vendor). Panel Should be with IP 54 Class of protection. Precharged diaphragm pressure vessel with food grade membrane, charging connection, connected to outlet header with necessary flanges, gaskets, isolating valves, nuts/bolts etc complete. Set of accessories such as pressure switches, pressure transducers, inter connecting power and control cabling etc. complete Including accessories like NRVs, Y Stainer, isolating valves, SS-304 (non-Magnetic) suction and delivery header, pressure gauge, MS base frame (Synthetic enamel painted over a coat of primer) etc. Booster Pump System (1 Set = 1W + 1S)				
8.00	DOORS AND WINDOWS				
8.01	Solid Core Flush door Single leaf Providing and fixing factory made solid core flush door in single leaf 35 mm thick, decorative types, of exterior grade, as per detailed drawings, conforming to I.S.:2202 - 1962 (Revised) with approved face veneers on both faces with/without glazing and venetians in the positions shown on the drawings or as directed, all necessary beads, moulding and lipping, holdfasts, mat finish stainless steel fixtures fastenings , finishing with french-polish/ waxing complete. (without door frame).(Sample to be got approved from Ex.Engineer before use) Commercial Hard Wood shutter	Sqm	66.15	2887.50	1,91,008.13
8.02	Solid Core Flush door Double leaf Providing and fixing factory made solid core flush door shutters in double leaves 35mm thick,decorative type of exterior grade, as per detailed drawings, conforming to I.S.: 2202 – 1966 (Revised) including approved face veneers on both sides, without glazing and venetians including mat finish stainless steel fixtures and fastening, stoppers and finishing with french polishing etc. (Excluding door frame)(Sample to be got approved from Ex. Engineer before use) Commercial Hard Wood shutter	Sqm	56.70	3255.00	1,84,558.50
8.03	Providing and fixing in position. (as per I.S.1868 / 1982) Aluminium sliding window of two tracks with rectangular pipe having overall dimension 63.50 x 38.10 x 1.02 mm at weight 0.547 Kilogram/One Running Metre. and window frame bottom track section 61.85 x 31.75 x 1.20 mm at weight 0.695 Kilogram/One Running Metre. Top and side track section 61.85 x 31.75 x 1.30 mm at weight 0.659 Kilogram/One Running Metre. The shutter should be of bearing bottom 40 x 18 x 1.25 mm at weight 0.417 Kilogram/One Running Metre. Inter locking section 40 x 18 x 1.10 mm at weight 0.469 Kilogram/One Running Metre. And handle section 40 x 18 x 1.25 mm at weight 0.417 Kilogram/One Running Metre. and top section 40 x 18 x 1.25 mm at weight 0.417 Kilogram/Running metre. As per detailed drawings and as directed by Engineer in charge with all necessary Aluminium sections fixtures and fastenings such as roller bearing in nylon casting and self locking catch fitted in vertical section of shutter including 5	Sqm	31.20	5752.95	1,79,492.04

	mm thick plain glass with all required screws and nuts etc, complete. With colour Anodising with box.				
8.04	Providing and fixing in position powder coated aluminium louvered windows / ventilator of various sizes with powder coating as per detailed drawing and specifications including aluminium frames 80 x 38 mm x 1.22 mm box type, 5 mm thick sheet glass louvers, of approved quality etc. complete.	Sqm	4.86	3640.35	17,692.10
9.00	INTERIOR WORK				
9.01	Providing and fixing in position Gypsum board false ceiling with 12.5 mm thick Gypsum boards, screwed/fixd to the under structure of suspended G.I. Grid constructed and suspended from the main ceiling consisting of ceiling sections of size 25 x 50 mm maximum center to center distance of 600 milimetre perimeter channel and intermediate channels at maximum center to center distance 1200 milimetre galvanized grid should be fixed to reinforced cement concrete slab. The gypsum board should be fixed to galvanized iron grid with necessary screws. The boards should be taped and filled from underside to give smooth, seamless ceiling. The rate should include necessary additional ceiling sections and intermediate channels. Additional intermediate channels should be fixed to strap hangers for additional support to prevent strapping at every 1200 milimetre item to be completed in all respect including necessary sleeves for ducts finishing of joints cut outs, painting including labour, material, lifts etc. all complete.	Sqm	QRO	1857.45	9.01
9.02	PRIVIDING AND FIXING MODULAR ACOUCTICAL WOODEN WALL PANELLING: Of nominal width 100 / 150mm, having 80mm wide panel with 20mm reveal having a thickness of 15mm thickness and length 2400 mm. The panel shall be made of a Moisture resistant fibre board substrate having a minimum density of 595 Kg/m3 with a laminated facing as per the approved shade (Portland Maple, Sea Beech, Siam Wood & Mystique Walnut) and a melamine balancing layer on the reverse side. The panel shall have 0.7mm PVC edge banding along the length side with a similar finish as that of the face. The back of the panel shall have a black acoustic felt to cover the reveal of 20mm to attain an NRC of 0.4 for 150mm. / 0.5 for 100mm. module (Average value of Absorption Co-efficient readings taken at 250 Hz, 500 Hz, 1000 Hz and 2000 Hz) as per ASTM C423. The panels shall provide a Humidity Resistance (RH) of 70% with camber limit less than 1mm/1000mm and bow less than 1mm/300mm. The back of the panels shall be profile-grooved to receive 3600mm special main beam carrier with integrated factory fitted clips for installation. SUSPENSION: The panels shall be upward mounted on 24 mm wide T - section flanges having rotary stitching along the length of the beam with a web height of 43mm. The Main Beam shall have integrated (factory fitted) locking clips installed at 100 / 150mm centre to centre distance. The deflection loading of the main beam tested as per ASTM C635 (Deflection limit less than L/360) shall be at least 21.4kg/m. The end details of the main beam shall be made of pre hardened steel and fixed to the ends with 3 point fixing. All main beam to main beam connection shall have a pull out strength of more than 100kg. The T Sections shall be made of hot dipped galvanized steel of 100 gsm as per IS 277 (2003) and pre-painted steel with baked polyester paint with OT bending capability. Installation should be carried out as per Manufacturer recommended procedure. The grid shall be installed with suspension system of Manufacturer make.	Sqm	QRO	11428.20	9.02
9.03	Removing existing soundproofing panels along with ensulation materials to clean the surface of walls, stacking them at the designated place and dispose the same as directed.	Sqm	5576.00	28.00	1,56,128.00

9.04	Providing & Fixing False Ceiling comprising of following material including fixing in galvanized steel sections with white color coated cap comprised of main tee 34 mm x 24 mm (heavy duty as per ASTM C - 635 standard tested) with pre-punched cross tee slots (at every 100 mm c/c) to be placed at 1200 mm c/c, suspended with 4 mm GI (TATA MAKE) straightened wire at every 1.2 mtr, other end of the wire provided with GI J hook & nut. All the false ceiling panels around the perimeter of the false ceiling & around the RCC columns shall rest on the perimeter G.I. molding of size 19 mm x 19 mm which is fixed to the walls with help of rawal plug & GI screw at the same level as false ceiling. The cross tee of 1200 mm length (26 mm x 24 mm wide Heavy duty) shall be locked in main tee at every 600 mm c/c. to form grid of 600 x 1200 mm. Further 600 mm long tee need to be locked in to 1200 mm tee to make the final grid of 600 mm X 600 mm, including making provision for cutouts and / or trap door for electrical and mechanical systems, etc complete as directed by Engineer In charge. With Armstrong or equivalent Orca Lay in metal ceiling System consisting of 600x600mm Lay in tiles of pre coated galvanised steel in 0.5/0.4 mm thickness in white colour with standard perforation of 2.5mm dia & open area of 16%. The back of the tile should have black acoustical fleece with NRC of 0.70 & CAC 36 with life time warrantee against sag in module size 595 mm X 595 mm at required height above FFL	Sqm	5576.00	1924.00	107,28,224.00
10.00	REBARING AND ANCHORING BOLTS				
10.01	Providing and fixing the Chemical Anchor Fasteners as specified below of Hilti Make or equivalent confirming to IS 1367 (Part 3) at required locations and level including drilling the hole, cleaning with blow pump and anchoring the bolt with chemical as per manufacturers specifications etc. complete as directed by Engineer In Charge.				
10.01(a)	M12 x 110 foil capsule (HVU) & M12 x 160 Rod	Nos	QRO	327.00	-
10.01(b)	M16 x 125 foil capsule (HVU) & M16 x 190 Rod	Nos	QRO	433.00	-
11.00	ELEVATION TREATMENT				
11.01	Supply, fixing and installation of 4mm thick Aluminium Composite Panel (ACP) of approved colour for external cladding in combination of solid and metallic colours, including all necessary Framework, support and complete weather sealing as per architectural drawing. The Aluminium Composite Panel (ACP) should be made out of thermoplastic core of low-density polyethylene LDPE (100% virgin mix), sandwiched between two aluminium sheets of ALLOY GRADE- 5000 series, each not less than 0.50 mm thick, total thickness of aluminium composite panels not to be less than 4 mm, the exposed surface thereof shall have Stove lacquered finishing coat not less than (26 + - 2) micron (containing minimum 70% kynar 500 based PVDF) of colour and shade as per architectural design. The inside surface (facing the building exterior surface) shall have polyester based powder coating not less than 25 Micron with protective peel-off foil on the exterior face (peel off film will in no case leave any adhesive mark over the composite panel surface after it is peeled off). The supporting framework shall be made out of 50 mm X25mm X 3mm thick Aluminium section to be spaced horizontally and vertically for fixing of panel of size 900 mm X 1200 mm and fixed to the building structure as per design through 50mm X50mm X5 mm MS angle clamps prefixed to masonry or slab, columns with Hilti make anchor fastener screws. The fixing of panel to be done with the help of VHB tapes and screws and all the sealing of joints to be done with weather sealant Silicon as directed by Engineer-in-charge. (Prior permission of S.E. is necessary before inclusion of this item in estimate).	Sqm	3370.00	3347.00	1,12,79,390.00

11.02	Design, supply, fabrication & erection of approved structural glazing using specially designed Vertical Mullion & Horizontal Transoms of Required size & as per architect's approved Grid work with aluminium rectangular sections to be fixed in masonry at interval of each floor on concrete slab with 80 mm x 100 mm x 5mm thick galvanized M & Langle fixed on wall side with raw bolt size of 10 mm x 90 mm with necessary bolts & washers / nuts for the plumb the linelevels. the glass panel's shall be fixed on a specially designed architectural sub- frame using Dow Corning 995 strural sealant & GE Silicon (SSG - 4000) sub frame would be fixed on main frame grid in amanner that no aluminium frame is visible from outside & groovesbetween the glass panel shall be filled with weather sealant of Dow corning 789 / GE Sil proof to made it air tight, water proof & dustfree thus giving it a flush look outside. Glass will be of 6 mm thick Glaverbel reflective type with heat strengh ened toughened.	Sqm	2204.00	4168.00	91,86,272.00
12.00	MISCELLANIOUS WORK				
12.01	Providing water proof bedding for flooring of Bath and WC 25 mm thick in C.M. 1:3 including using approved water proofing compound in specified proportion as per manufacturers specifications for per bag of cement including leveling, curing and covering 10 years guarantee on court fee stamp paper of Rs.500/- including ponding test etc.complete. As directed by Engineer in charge.	Sqm	QRO	451.50	-
12.02	Providing, fabricating & fixing in position S.S. 304 grade pipe railing for staircase consisting of 18 gauge 50 mm dia. S.S.pipe as top rail,18 gauge 40 mm dia S.S. pipe as verticals, 18 gauge 25 mm dia as secondary rails, including fixing the verticals to the staircase pardi by means of base plate with socket & anchor fasteners,grinding the welded portion smooth,buffing, protecting the railing members by means of wrappers during construction etc. complete as directed by the Engineer in charge	RMT	QRO	2892.00	-
12.03	Providing and fabricating structural steel work in rolled sections like joists, channels, angles, tees etc. as per detailed design and drawings or as directed including cutting, fabricating, hoisting, erecting, fixing in position making riveted / bolted /welded connections without connecting plates, braces etc. and including one coat of anticorrosive paint and over it two coats of oil painting of approved quality and shade etc. complete.	Mt	112.16	106936.20	1,19,94,391.94
12.04	Providing & Fixing 15 mm thick solid white acrylic laser cut out Logo etc complete.(as per client / Architectural approval)	Sq.In	QRO	27.00	-
12.05	Directional signage Design, supply, fabrication and fixing acrylic multilingual Braille (raised dots) directional signboards of size 6" x 9" designed as per accessibility standards and having 4mm thick acrylic base plate with Upper Case San Serif words made of white acrylic non glare cut out letters of height 15mm raised not less than 0.8mm above base plate and the equivalent word written in Hindi with Devnagri non glare acrylic letters of height 15mm raised not less than 0.8mm above base plate and having a non glare acrylic cut arrow pointing in the required direction. Each signboard to be fixed as per manufacturers specifications on the wall at the approved location and at a height of 1200mm from FFL and as per the directions by the engineer in charge.	No.	3.00	1714.65	5,143.95
Item No.	Description	Unit	Qty.	Rate	Amount
12.06	Providing and casting insitu or precast tapering R.C.C. M-20 Barrier type Kerb without gutter (as per IRC 861983) embedded 125 mm below ground level over M-10 PCC finished neatly with C.M. 1:2, setting the same in C.M. 1:2, including the required excavation in any strata and removing the excavated stuff any where in city and redoing the surface as specified and	Rmt	185.00	581.70	1,07,615.00

	directed by Engineering In-charge. Using Concrete Batching and Mixing Plant.				
12.07	Disposal of building rubbish / malba / similar unserviceable, dismantled or waste materials by mechanical means including loading, transporting, unloading to approved municipal dumping ground or as approved by Engineer-in-charge, beyond 50 m initial lead, for all loads including all lifts involved. For 25 Km Lead	Cum	79.00	616.35	48,691.55
13.00	FURNITURE				
13.01	Stool for Lab and Class-IV Providing and fixing 4 legged Lab stool, Legs made of 16 Guage 45 MM Outer dimension MS Pipe, Duly painted, With a 304 Grade Stainless steel 12 inch wide seat with a 1 inch collar, Height adjustment via a screw. as per design and drawing and instructions of Engineer in charge.	No.	23.00	2747.85	63,200.55
13.02	Providing and supplying center pivot, revolving, Mid back chair Depth-45cm, width-50cm, height- 105cm to 115cm & seat height- 45cm to 55cm. (+/- 2cm) with five legged metal / moulded nylon base with push back arrangement. Chairs shall have high density moulded, 360 revolving on suitable base, gas lift , heavy duty twin wheel castors to take min 80 kg/castor with two -pneumatic height adjustment one piece moulded type polypropylene armrest etc. complete. The chair shall be provided with approved tapestry upto Rs 300/m with necessary beading wherever required. All metal work shall be Epoxy Polyester Powder Coated and as directed by Architect in charge. The over all appearance of the product shall be as per photograph. All metal work shall be Epoxy Polyester Powder Coated and as directed by Architect in charge.	No	17.00	12500.00	2,12,500.00
13.03	Providing and Supplying Reception table of overall size 1650 X 750 X 750 mm made out of 19 mm thick Marine ply (IS 710 : 2010) top Sides and apron having Top and bottom horizontal patta. The table shall be externally and internally finished with 4mm thick group match veneer pattern with grooves including necessary lipping moulding and hardware. 5 mm thick toughened glass modesty shall be provided with 50 X 30 mm BTC wood frame etc. complete. Antitermite treatment to marine ply and all wooden accessories on both sides for full faces before the joineries melamine polish on french polish base coat, hardware as per drawings. etc. all complete as per Architects Drawing.	No	1.00	40512.00	40,512.00
13.04	Providing table top of required size fixed at a standard table top height of up to 750mm min. (including table top thickness) to Modular partition. Table top shall be made of 25mm thick Marine ply (IS 710 : 2010) , FIRE RETARDENT laminate on all sides / surfaces. All edges of the work surface shall be provided with machine pressed PVC edge banding of 2mm thickness etc. complete. Table top to be principally mounted from the partition frame with suitable MS powder coated brackets which should be integrated into the partition frame etc. complete.				
a	900 X 450	No	1.00	2106.00	2,106.00
b	900 X 600	No	1.00	2808.00	2,808.00
c	1050 X 450	No	QRO	2457.00	-
d	1050 X 600	No	6.00	3276.00	19,656.00
e	1200 X 450	No	1.00	2808.00	2,808.00
f	1200 X 600	No	1.00	3744.00	3,744.00
g	1350 X 600	No	QRO	4212.00	-
h	1500 X 600	No	QRO	4680.00	-
13.05	Providing table top of required size fixed at a standard table top height of upto 750mm min (including table top thickness). Table top shall be made of 25mm thick Marine ply (IS 710 : 2010), FIRE RETARDENT laminate on all sides/ surfaces. All edges of the work surface shall be provided with machine pressed PVC edge banding of 2mm thickness etc. complete. Table top to be principally mounted from the partition frame with suitable MS powder coated brackets which should				

	be integrated into the partition frame. Gable End Supports of approved profile and design between tables consisting of 18mm Marine ply (IS 710 : 2010) panels duly edge bound (to be integrated with the partition. Adjustable levellers to be provided to supports.) etc. complete.				
a	1500 X 600 & side 900 x 600	No	5.00	13608.00	68,040.00
13.06	Providing and positioning bunk bed made out of approved colour,powder coated, M.S. (IS 513:2008) pipe frame and angle supports.Two end frames shall be made out of 16 guage and 40 mm dia M.S pipes as vertical supports and 16 guage 25 mm dia M.S pipes along with 40 x 40 x 6 mm M.S angle lateral frame to recieve 12mm thk marine grade ply base for 100 mm thk ,100 density coir mattress etc. complete. Edges of the base ply shall be sealed with 6mm thk T.W lipping. Two nos of 25 mm dia 16 guage pipe supports shall be provided to support both the base ply and ladder and with necessary Nylon bushers for pipe ends touching to floor and with approved colour powder coating and complete as per the instructions of the Architect or Engineer in charge. Note: This item shall be made in knock down type of arrangement.	No	16.00	66018.00	10,56,288.00
13.07	Stitching of Curtains for windows and doors and fixing the same withapproved fabric and buttons, accessories, etc complete.	Sqm	2.00	253.00	506.00
13.08	Providing and supplying Modular CUPBOARD made up of required size. Top made of 25mm Marine ply (IS 710 : 2010), having post formed decorative laminate of 0.8mm on top and FIRE RETARDENT laminate on all sides / surfaces etc. complete. Sides, Sides in 25mm thk Marine ply (IS 710: 2010). Adjustable shelf made in 25mm thk Marine ply (IS 710 : 2010) placed on standard shelf pins etc. complete. Storage Back made of 9mm thick Marine ply (IS 710 : 2010) etc. Sides, Shutters, Bottom, adjustable shelf, finished 2mm thick machine pressed PVC Edge banding of required size etc. Hardware set to include 110 degree opening self-closing box hinges, Counter Sunk screw, S.S.Brush Finished, Handles L' Clips Selves support etc. complete. Multipurpose lock, Levelling Bolt with inserts etc. complete. Aluminium furniture feet – Round tube, diameter 40 mm with 100 mm height with suitable finish to match handles" Shape SS Brush finished handles as indicated in the drawing, suitable locking provision etc. complete.				
a	900 x 450 x 1200 - 2 SHELVES	No	8.00	16065.00	1,28,520.00
b	900 x 450 x 1800 - 4 SHELVES	No	22.00	23814.00	5,23,908.00
13.09	Providing Step-On Pedal Dustbin/Waste Bin with lid constructed of 100% virgin, Strong and durable plastic of approved make and colour Capacity 6 ltr/10 Ltr				
a	Capacity 6 lit	No	16.00	400.00	6,400.00
b	Capacity 10 lit	No	QRO	450.00	-
13.10	Providing & fixing of Storage cabinet, made of 18mm thick commercial plywood of approved make on Storage top and facia shall be finished with 4mm thick teak veneer & high gloss PU coat & made of 12mm thick plywood all outer sides & surfaces shall be finished 1mm thick laminate approved make & colour.	Sqm	1.92	12000.00	23,040.00
	All other finishes shall be done as per detail drawings and as per instructions of architect / owner. Sides & bottom shall be made of 18mm thick plywood & back side shall be made of 6mm thick plywood, intermediate shelf shall be made of 18mm thick plywood. Self top & bottom surface shall be finished with french polish. All the inside surfaces shall be finished with shall be finished 1mm thick laminate approved make & color/ enamel paint of approved make and color. The work shall be measured base on area of front elevation of each storage unit. The rate to include all materials, labour, transport, taxes, delivered and placed in position at site of work. As per approved hardware.				
14.00	HORTICULTURE WORK				

14.01	Planting Shrubbery on Soft/Hard surface: Filling Red Hill Earth & Cow Dung Manure in the excavated area mixing in 2:1 proportion, watering, weeding after every watering before planting the shrub, leveling, providing and planting well grown, healthy, bushy shrubs including transport and unloading as per specified variety and sizes, planting at desired location and specified distances, maintaining for 1 month after completion of plantation and replacement of casualties till 1 month.					0.00
14.01(b)	Fox tail palm Bag size (10" x 12") Height Of Plant (3 to 4 ft..)	No	QRO	210.00	-	
14.02	POTTED PLANTS: Providing and displaying a combination of seasonal flower plants and indoor plants (minimum ht. 30 cm) developed fresh and healthy leaves in plastic pot to the satisfaction of client/ Architect. Scope includes adding good suitable plants with soil, new pots, garden cleaning, pots neatly placed in position, carrying of waste mulch, insert new garden soil with compost mixed, addition of cocopeat to hold moisture, all general garden care service. The period of the contract shall be six months. Plants will be property of owner after contract period. Activities included in the scope of work shall include strumming, laying, sweeping, watering, weeding, applying fertilizers, pesticides, planting trees/plants, cleaning and waste disposal. The required consumables for the service for the contract period 6 months shall include fertilizers, pesticides, seeds, good earth, plants/trees- flower, foliage, herb, shrub, bamboo etc., machinery, pots/container – plastic pots 12 inch dia. size. The service provider will quote cost inclusive of scope and selected consumables. List of approved plants and specification of plants is enclosed as under.					
14.02 (a)	Bird of Paradise Potted 3-4ft height	No	3.00	338.00	1,014.00	
14.02 (b)	Areca Palm Potted 3-4ft height	No	3.00	338.00	1,014.00	
14.02 (c)	Bougainvillea Potted 3-4ft height	No	3.00	238.00	714.00	
14.02 (d)	Coleus potted 3-4ft height	No	4.00	188.00	752.00	
14.02 (e)	Catharanthus– Pink and white Flower 3-4ft height	No	4.00	173.00	692.00	
		Total - Rs.	6,38,64,678.31			
		Say - Rs.	6,38,64,678.00			
A2	Repair Work for existing Structure					
15.00	STRUCTURAL REPAIR					
15.01	Repairing of honey combed or spilling area by chipping out the damaged spalled or honey combed portion of concrete upto rusted rebars, cleaning of all rust, scale and loose materials, scaffolding, compressed air machinery etc. complete.(item includes use of air compressor, chipping machine and scaffolding for height 8 to 10 meter)	Sqm	5197.00	833.70	43,32,738.90	

Item No.	Description	Unit	Qty.	Rate	Amount
15.02	Removing corrosion of steel reinforcement by mechanical means like wire brushing, chipping to remove loose rust and then applying rust removal solution by using brush application, leaving the surface for at least 15 to 30 minutes, then removing loose materials by scrubbing or with brush. After detachment of loose scales reddish rusted surface is still left exposed, this has to be retreated or as per approved manufacturers specifications. (Note:- Consider surface area of concrete for payment)	Sqm	5197.00	46.00	2,39,062.00
15.03	Anticorrosive treatment to expose reinforcement in two coats with time interval of minimum 4 hours between each coat. The application shall be done by brush	Kg	5197.00	595.35	30,94,033.95
15.04	Providing and fixing in position TMT-FE-500 bar reinforcement of various diameters for R.C.C. pile caps, footings, foundations, slabs, beams columns, canopies, staircase, newels, chajjas, lintels pardis, copings, fins, arches etc. as per detailed designs, drawings and schedules. including cutting, bending, hooking the bars, binding with wires or tack welding and supporting as	Kg	55.00	94188.15	51,80,348.25

	required complete.				
15.05	Repairing to the existing RCC structural members (vertical or horizontal) using ready mix Polymer Modified Mortar (Fibre reinforced structural grade repair mortar) of approved brand where the thickness of repair is upto 15 mm. It can be used for carrying out extensive repairs to beams, columns, slab, and other structural elements, repairing of structural members subjected to repetitive loading for strengthening. Procedure for carrying out repair Polymer Modified Mortar – Surface preparation- (separate payment shall be made) All loose traces of concrete or mortar, dust, grease oil, etc. must be removed. Damaged or contaminated concrete shall be removed to obtain a keyed aggregate exposed surface. Non-impact/ vibrating cleaning methods, e.g. grit or high pressure water blasting are recommended. Clean all exposed reinforcement to a minimum grade of Sa 2 according to ISO 8501-1 / ISO 2944-4. Ensure all visible portions of the reinforcing bar is clean. Where reinforcing bars are corroded, cut back the concrete around the reinforcing bars, Grit blast to remove corrosion products from around reinforcing bars and coat with approved epoxy coating for corrosion protection or any other protective coating as recommended by the Structural Engineer to protect from corrosion. Replace the affected part of rebar if the diameter after grit blasting is found reduced by more than 20% of the original diameter on the advice of the structural engineer responsible for the works. Bond Coat- (separate payment shall be made only for bond coat used for old surface to new surface) Providing & applying One coat of structural grade epoxy bond coat by brush conforming to ASTM-C-882-87 to the prepared concrete surface to be repaired / strengthened and repairing with PMM shall be done when the surface is tacky. Mixing - Only full bags are mixed. Damaged or opened bags should not be used. Mix the ready-mix Polymer Modified Mortar in a forced action pan mixer, or with a helical paddle attached to a low speed (300-600rpm) mixer for 3 minutes until a lump free, thixotropic consistency is achieved. Only use clean water. Mixing water needed: 3.75 to 4.25 litres per 25kg bag or as recommended by the Manufacturer of Polymer Modified Mortar. Allow the mortar to rest for 2 - 3 minutes and then remix briefly before pouring into formwork. If temperature more than 40°C then use chilled water for mixing.	Sqm	1366.00	3063.00	41,84,058.00
	Mortar application- The minimum temperatures must be maintained during application and for at least 24 hours thereafter for optimum curing of the product. The prepared substrate should be presoaked, preferably for 24 hours, but at least 2 hours before applying Polymer Modified Mortar. The surface must be saturated surface dry, but without standing water. Polymer Modified Mortar can be spray-or hand-applied. Apply mixed product directly to the prepared damp substrate, or wet on wet onto the primed surface. Spraying the material with the necessary pressure will ensure good adhesion of the material. A thin scrape coat or contact layer before building up to the required thickness, wet on wet, will improve adhesion especially in case of hand application. Apply to the desired layer thickness upto 15 mm and level using a screeding bar, trowel or wooden board. Smoothing with a trowel or finishing by float or sponge can be done as soon as the mortar has begun to stiffen. Protective coatings Subsequent coatings of any anticarbonation barriers or silane impregnations should be applied if recommended by the Structural Engineer. Plaster- (No separate payment shall be made) The repaired surface shall be matched to the surrounding surface by providing required thickness of plaster internal or external plaster. Curing Minimum 7 days curing shall be done to the newly repaired area using any suitable				

	method.Required Compressive strength (ASTM C109 7cm cube) Ready Mix Polymer Modified Mortar used on site shall be sent for testing of compressive strength and minimum strength required to be achieved is as follows – 1 Day-15 MPa, 3 Day-25 MPa, 7 Day-35 MPa, 28 Day-45 MPa.				
15.06	Repairing to the existing RCC structural members (vertical or horizontal) using ready mix Polymer Modified Mortar (Fibre reinforced structural grade repair mortar) of approved brand where the thickness of repair is upto 30 mm in two layers. It can be used for carrying out extensive repairs to beams, columns, slab, and other structural elements, repairing of structural members subjected to repetitive loading for strengthening. Procedure for carrying out repair Polymer Modified Mortar – Surface preparation- (separate payment shall be made) All loose traces of concrete or mortar, dust, grease oil, etc. must be removed. Damaged or contaminated concrete shall be removed to obtain a keyed aggregate exposed surface. Non-impact/ vibrating cleaning methods, e.g. grit or high pressure water blasting are recommended. Clean all exposed reinforcement to a minimum grade of Sa 2 according to ISO 8501-1 / ISO 2944-4. Ensure all visible portions of the reinforcing bar is clean. Where reinforcing bars are corroded, cut back the concrete around the reinforcing bars, Grit blast to remove corrosion products from around reinforcing bars and coat with approved epoxy coating for corrosion protection or any other protective coating as recommended by the Structural Engineer to protect from corrosion. Replace the affected part of rebar if the diameter after grit blasting is found reduced by more than 20% of the original diameter on the advice of the structural engineer responsible for the works. Bond Coat- (separate payment shall be made only for bond coat used for old surface to new surface) Providing & applying One coat of structural grade epoxy bond coat by brush conforming to ASTM-C-882-87 to the prepared concrete surface to be repaired / strengthened and repairing with PMM shall be done when the surface is tacky.	Sqm	2464.00	5866.00	1,44,53,824.00
	Mixing - Only full bags are mixed. Damaged or opened bags should not be used. Mix the ready-mix Polymer Modified Mortar in a forced action pan mixer, or with a helical paddle attached to a low speed (300-600rpm) mixer for 3 minutes until a lump free, thixotropic consistency is achieved. Only use clean water. Mixing water needed: 3.75 to 4.25 litres per 25kg bag or as recommended by the Manufacturer of Polymer Modified Mortar. Allow the mortar to rest for 2 - 3 minutes and then remix briefly before pouring into formwork. If temperature more than 40°C then use chilled water for mixing. Protective coatings Subsequent coatings of any anticarbonation barriers or silane impregnations should be applied if recommended by the Structural Engineer. Plaster- (No separate payment shall be made) The repaired surface shall be matched to the surrounding surface by providing required thickness of plaster internal or external plaster. Curing Minimum 7 days curing shall be done to the newly repaired area using any suitable method. Required Compressive strength (ASTM C109 7cm cube) Ready Mix Polymer Modified Mortar used on site shall be sent for testing of compressive strength and minimum strength required to be achieved is as follows – 1 Day-15 MPa, 3 Day-25 MPa, 7 Day-35 MPa, 28 Day-45 MPa. Mortar application- The minimum temperatures must be maintained during application and for at least 24 hours thereafter for optimum curing of the product. The prepared substrate should be presoaked, preferably for 24 hours, but at least 2 hours before applying Polymer Modified Mortar. The surface must be saturated surface				

	dry, but without standing water. Polymer Modified Mortar can be spray- or hand-applied. Apply mixed product directly to the prepared damp substrate, or wet on wet onto the primed surface. Spraying the material with the necessary pressure will ensure good adhesion of the material. A thin scrape coat or contact layer before building up to the required thickness, wet on wet, will improve adhesion especially in case of hand application. Apply to the desired layer thickness upto 15 mm and level using a screeding bar, trowel or wooden board. Smoothing with a trowel or finishing by float or sponge can be done as soon as the mortar has begun to stiffen. Protective coatings Subsequent coatings of any anticarbonation barriers or silane impregnations should be applied if recommended by the Structural Engineer. Plaster- (No separate payment shall be made) The repaired surface shall be matched to the surrounding surface by providing required thickness of plaster internal or external plaster. Curing Minimum 7 days curing shall be done to the newly repaired area using any suitable method. Required Compressive strength (ASTM C109 7cm cube) Ready Mix Polymer Modified Mortar used on site shall be sent for testing of compressive strength and minimum strength required to be achieved is as follows – 1 Day-15 MPa, 3 Day-25 MPa, 7 Day-35 MPa, 28 Day-45 MPa.				
15.07	Providing and applying epoxy mortar for repairs to cracked portions of RCC columns, piers, beams, girders, diaphragms, slabs, parapets etc. including chipping the loose cracked concrete, cleaning the surface and removing the rust thoroughly and completely by means of wire brushes, sand blasting and washing with water etc. rebuilding the section by first applying one coat of epoxy primer coat of araldite / GY 257 and hardener HY840 in 100:50 proportion by weight, applying epoxy mortar prepared by mixing araldite, hardener and quartzite sand in 100:50:900 proportion by weight in required shape and	Kg	1500.00	459.00	6,88,500.00
	architectural finishes, if any, finishing the surface smooth including applying a seal coat of araldite and hardener in 100:50 proportion by weight with stiff nylon bristle brush etc. complete as specified as directed.				
15.08	Repairing to the existing RCC structural members (vertical or horizontal) using ready mix Micro Concrete of approved brand where the thickness of repair is more than 30 mm and upto 115 mm. It can be used for carrying out extensive repairs to beams, columns and other structural elements, repairing of structural members subjected to repetitive loading & for Jacketing of beams, columns and other structural elements for strengthening.Procedure for carrying out repairing/jacketing using ready mix micro concrete- Surface preparation- (separate payment shall be made) All loose traces of concrete or mortar, dust, grease oil, etc. must be removed. Damaged or contaminated concrete shall be removed to obtain a keyed aggregate exposed surface. Non-impact/ vibrating cleaning methods, e.g. grit or high pressure water blasting are recommended. Cut the edges of the repair vertically to a minimum depth of 20 mm. Clean all exposed reinforcement to a minimum grade of Sa 2 according to ISO 8501-1 / ISO 2944-4. Ensure back of reinforcing bar is also clean. Where reinforcing bars are corroded, cut back the concrete to at least 20mm behind the reinforcing bars and coat old and new with approved epoxy coating for corrosion protection Water Powder ration Grit blast around the reinforcing bars to remove corrosion products or any other method recommended by Engineer In charge or Structural Consultant. Replace the affected part of reinforcing bar if the diameter after grit blasting is found reduced by more than 20% of the original diameter on the advice of the structural engineer responsible for the works. Bond Coat- (separate payment shall be made) Providing & applying One coat of structural grade epoxy bond coat	Kg	196322.00	41.00	80,49,202.00

	by brush conforming to ASTM-C-882-87 to the prepared concrete surface to be repaired / strengthened and micro concreting pouring shall be done when the surface is tacky. Formwork – (No separate payment shall be made)The forms must be of good quality, treated with a chemical release agent for smooth release, provided with water drain holes, strong and well braced to withstand the fluid pressure of the mortar until it hardens.Mixing - Only full bags are mixed. Damaged or opened bags should not be used. Mix the ready mix Micro Concrete in a forced action pan mixer, or with a helical paddle attached to a low speed (300-600rpm) mixer for 3 minutes until a lump free, flowable consistency is achieved. Only use clean water. Mixing water needed: 3.25 to 3.75 litres per 25kg bag or as recommended by the Manufacturer of Micro Concrete. Allow the mortar to rest for 2 - 3 minutes and then remix briefly before pouring into formwork. If temperature more than 40°C then use chilled water for mixing. Mortar application-The minimum temperatures must be maintained during application and for at least 24 hours thereafter for optimum curing of the product. The prepared substrate should be presoaked, preferably for 24 hours, but at least 2 hours before applying Ready Mix Micro Concrete ensure all water is removed from formwork prior to installation and formwork is resealed. Ready Mix Micro Concrete should be pumped or poured into the prepared formwork until the void is filled. Pumping is recommended for larger pours. Do not vibrate Ready Mix Micro Concrete as it could lead to segregation. The formwork should be removed after 1-3 days and a curing compound applied.				

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
	If subsequent coats are to be applied the use of clear polythene is recommended for the first three days after removal of formwork. For repairs beyond 80mm to 100mm in thickness, extend Ready Mix Micro Concrete with up to 25kg of 5-12mm sized washed, saturated surface-dry (SSD), graded low absorption, high density aggregates. Protective coatings- (separate payment shall be made) Subsequent coatings of any anticarbonation barriers or silane impregnations should be applied if recommended by the Structural Engineer. Curing -Minimum 7 days curing shall be done to the newly repaired/jacketed area using any suitable method. Required Compressive strength (ASTM C109 7cm cube) Ready Mix Micro Concrete used on site shall be sent for testing of compressive strength and minimum strength required to be achieved is as follows –1 Day-15 MPa, 3 Day-25 MPa, 7 Day-35 MPa, 28 Day-40 MPa. Note- Payment is to be made by weight premixed of micro concrete product consumed as per site register records.				
15.09	Providing and laying insitu / ready mix M35 grade RCC jacketing work around the existing piers of bridges etc. complete. (with fully automatic micro processor based PLC with SCADA enabled concrete batch mix plant / pan mixer with fine aggregates of required specifications (VSI sand finely washed etc), height of 8 to 10 meter).	Cum	108.00	8986.79	9,70,572.90
15.10	Providing & applying structural grade epoxy approved bond coat prior to application of any type of mortar confirming to IS codes or equivalent to ensure bond between old concrete & new concrete by brush application etc complete.	Sqm	5197.00	774.90	40,27,155.30
15.11	Sealing of cracks/porous concrete by injection process through nipples/Grouting complete as per Technical specification Cement Grout	Kg	1800.00	261.00	4,69,800.00
15.12	Providing Grouting of nozzles with Low Viscosity Epoxy grout including material, labour complete in all respect.	Kg	30.00	1741.95	52,258.50
15.13	Providing and inserting nipples with approved fixing compound after drilling holes for grouting as per Technical specifications including subsequent cutting/removal and sealing of the hole as necessary of nipples after completion of grouting with Cement/Epoxy	Each	510.00	215.00	1,09,650.00
16.00	JACKETING				
16.01	Dismantling brick masonry in lime or cement mortar and stacking the materials as directed with all leads, lifts etc.	Cum	77.00	351.75	27,084.75
16.02	Providing second class Burnt Brick masonry with conventional/ I.S. type bricks in cement mortar 1:6 in superstructure including striking joints, raking out joints, watering and scaffolding etc. Complete	Cum	53.00	9060.75	4,80,219.75
16.03	Removing rich mix cement concrete including stacking the spoils as directed with all leads, lifts etc, complete.	Cum	31.00	976.50	30,271.50
16.04	Excavation for foundation in earth, soil of all types, sand, gravel and soft murum, including removing the excavated material upto a distance of 50m. beyond the building area and stacking and spreading as directed, dewatering, preparing the bed for the foundation and necessary backfilling, ramming, watering including shoring and strutting etc. complete. (Lift upto 0.00 to 1.50 m.) By Manual Means	Cum	7.00	250.95	1,756.65
16.05	Providing dry/ trap/ granite/ quartzite/ gneiss rubble stone soling 15cm to 20cm thick including hand packing and compacting etc. complete	Cum	4.00	1817.49	7,269.96

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
16.06	Providing and laying Cast insitu/ Ready Mix cement concrete in M15 of trap/ granite/ quartzite/ gneiss metal for foundation and bedding/ steps including steel centering, formwork, laying/ pumping, compacting, roughening them if special finish is to be provided, finishing uneven and honey combed surface and curing etc. complete. The Cement Mortar 1:3 plaster is considered for rendering uneven and honey combed surface, only. Newly laid concrete shall be covered by gunny bag, plastic, tarpaulin etc. (Wooden centering will not be allowed.), with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)	Cum	4.00	7417.28	29,669.12
16.07	Shear Connectors: Make 10/12 mm dia holes using heavy duty electrically operated hammer drills in the concrete of RCC members to a depth of about 75 mm at 500 mm c/c or at suitable grid in zig-zag fashion, clean the holes using air jet and fix pre- fabricated 100 x 50 mm L-shape 8 mm dia rebar using Anti Corrosive protective coating so that 75 mm out of 100 mm is inserted inside the concrete and 25 mm remain outside along with 50 mm bend. The shear connectors are used to tie the additional reinforcement bars	Nos.	13902.00	561.00	77,99,022.00
17.00	SLAB RECASTING WORK				
17.01	Providing and laying Cast in situ/ Ready Mix cement concrete M-25 of trap/ granite/ quartzite/ gneiss metal for R.C.C. slabs and landings as per detailed designs and drawings including steel centering, formwork, cover blocks, laying/ pumping, compaction finishing the formed surfaces with cement mortar 1:3 of sufficient minimum thickness to give a smooth and even surface or roughening if special finish is to be provided and curing etc. complete, (Excluding reinforcement and structural steel). with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)	Cum	30.00	15533.21	4,65,996.30
18.00	WATERPROOFING WORK				
18.01	Removing brick bat coba including stacking the spoils as directed with all leads, lifts etc, complete.	Cum	269.00	664.65	1,78,790.85
18.02	Lowering down the debris obtained from breaking and removing the cement plaster/ burnt brick masonry of the first floor by any means without causing dust nuisance and damage to structure, stacking the same as and where directed including cleaning the site complete	Cum	269.00	789.60	2,12,402.40
18.03	Water proofing treatment to the chajja after removing old plaster and roughening the surface and finishing the top surface with 20mm thk. 1:2 c.s. plaster with approved water proofing compounds and neat cement finish, the rate also includes for 1:3 c.s. facia of chajja to match the new surface(actual area treated will be paid).	Sqm	15.00	394.00	5,910.00
18.04	Providing and applying of MARISEAL 250 or equivalent approved make of Polyurethane coating in two coats for terrace waterproofing having more than 400 % elongation at break. The final curing time shall be of 7 days. The Water Vapor Permeability shall be more than 25 gr/m ² /day. The service temperature shall be of 30 to 90 Deg Cel and the adhesion to concrete properties shall be more than 1.5 N/mm ² . The coating shall be highly permanent elastic, cold applied and cold curing, one component polyurethane membrane. The coating shall have mechanical, chemical, thermal, UV and natural element resistance properties. The MARISEAL 710 Polyurethane Primer or equivalent approved make solvent based primer shall be used for quick drying. The MARISEAL FABRIC or equivalent approved make shall be used as a reinforcing fabric for liquid applied waterproofing membranes.	Sqm	1535.00	1716.00	26,34,060.00

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
18.05	Removing the tar or coba and disposing of the material as directed etc. complete.	Sqm	1708.00	27.30	46,628.40
18.06	Providing and laying APP (Atactic Polypropylene Polymer) modified prefabricated five layer 3 mm thick water proofing membrane, black finished reinforced with non-woven polyester matt consisting of a coat of bitumen primer for bitumen membrane @ 0.40 litre/sqm by the same membrane manufacture of density at 25°C, 0.87-0.89 kg/ litre and viscosity 70-160 cps. Over the primer coat the layer of membrane shall be laid using Butane Torch and sealing all joints etc, and preparing the surface complete. The vital physical and chemical parameters of the membrane shall be as under : Joint strength in longitudinal and transverse direction at 23°C as 650/450N/5cm. Tear strength in longitudinal and transverse direction as 300/250N. Softening point of membrane not less than 150°C. Cold flexibility shall be upto -2°C when tested in accordance with ASTM, D - 5147. The laying of membrane shall be got done through the authorised applicator of the manufacturer of membrane 22.20.1 3 mm thick	Sqm	1708.00	459.00	7,83,972.00
19.01	Removing the existing cement plaster of any thickness without causing dust nuisance and stacking the debris upto a distance of 50 metres or spreading in the compound and cleaning the site etc. complete.	Sqm	7805.00	54.60	4,26,153.00
19.02	Providing sand faced plaster externally in cement mortar using approved screened sand, in all positions including base coat of 15mm thick in cement mortar 1:4 using waterproofing compound at 1 Kilogram per cement bag curing the same for not less than 2 days and keeping the surface of the base coat rough to receive the sand faced treatment 6 to 8 mm thick in cement mortar 1:4 finishing the surface by taking out grains and curing for fourteen days scaffolding etc.complete.	Sqm	4019.00	701.02	28,17,399.38
19.03	Providing internal cement plaster 12mm thick in single coat in cement mortar 1:4 without neeru finish to concrete or brick surfaces, in all positions including scaffolding and curing etc. complete.	Sqm	3344.00	305.57	10,21,826.08
19.04	Providing internal cement plaster 6mm thick in a single coat in cement mortar 1:4 without neeru finish to concrete surface in all positions including scaffolding and curing etc. complete.	Sqm	950.00	220.07	2,09,066.50
20.00	TILING				
20.01	Removing mosaic, cement marble, granites non-slippery, tandur, kotah, shahabad stone or Indian Pattern stone, glazed tiles in flooring and dado including bedding brick bat coba etc., and delivering materials in Ward Office and carting away unserviceable materials.	Sqm	440.00	315.00	1,38,600.00
20.02	Providing and laying ceramic tiles of having size 30cm.x30cm. and confirming to corresponding I.S. for dado and skirting in required position with ready made adhesive mortar of approved quality on plaster of 1:2 cement mortar including joint filling with white/ colour cement slurry cleaning curing etc. complete.	Sqm	440.00	1333.24	5,86,625.60
21.00	PAINTING				
21.01	Providing and applying two coats of flat oil paint of approved colour and shade to internal/ external plastered surfaces including scaffolding if necessary, cleaning and preparing the surface (excluding primer coat) etc. complete.	Sqm	3900.00	106.05	4,13,595.00
21.02	Providing and applying priming coat over new/old steel and other metal surfaces including preparing the surface by thoroughly cleaning oil, grease, dirt and other foreign matter and scoured with wire brushes, fine steel wool, scrappers and sand paper, scaffolding etc.complete.	Sqm	5802.00	38.85	2,25,407.70
21.03	Providing and applying two coats of flat oil paint of approved colour to the old structural steel work and iron work previously painted in building including scaffolding, if necessary, cleaning and preparing the surface (excluding primer coat) etc. complete.	Sqm	5802.00	89.25	5,17,828.50

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
21.04	Providing and applying white-wash in two coats on old / new plastered or masonry surfaces and asbestos cement sheets including scaffolding and preparing the surface by brushing and brooming down etc. complete.	Sqm	7411.00	12.60	93,378.60
21.05	Providing and applying two coats Apex Ultima Puranature Anti-Pollution Or equivalent approved brand, paint should decomposes organic substances and inorganic gases (NOx, VOC's, CO, SOx, formaldehydes, etc.) in presence of natural or artificial light. It contains Graphene and nano particles of titanium oxide. and Absorbs CO2 (4.8 Kilogram/15l). plaster crack should be filled by Acrylic base Crack seal/ Textured Crack filler, Paint has to be applied on one coat of Apex Ultima Puranature Anti-Pollution Primer or Equivalent. Warranty Should be given by the Manufacturer The work should be done by the Manufacturer Recommended applicator and he should be able to furnish stage wise on site technical reports from the concerned company technologist.	Sqm	1265.00	390.60	4,94,109.00
21.06	Providing and applying priming coat on concrete/ masonry/ Asbestos Cement plastered surfaces including scaffolding if necessary, preparing the surface by thoroughly cleaning oil, grease, dirt and other foreign matter and sand papering as required etc.complete.	Sqm	3900.00	37.80	1,47,420.00
22.00	STAIRCASE				
22.01	Removing existing barbed wire fencing/pipe railing of any height, including posts & carting away the same to Ward Chowky & stacking the same neatly as directed.	RMT	30.00	25.00	750.00
22.02	Dismantling the R.C.C. Work 1:2:4 and sorting out the materials such as steel etc. as directed and stacking them within the specified lead as directed etc. complete.	Cum	26.00	1523.55	39,612.30
22.03	Providing and laying Cast insitu/ Ready Mix cement concrete in M15 of trap/ granite/ quartzite/ gneiss metal for foundation and bedding/ steps including steel centering, formwork, laying/ pumping, compacting, roughening them if special finish is to be provided, finishing uneven and honey combed surface and curing etc. complete. The Cement Mortar 1:3 plaster is considered for rendering uneven and honey combed surface, only. Newly laid concrete shall be covered by gunny bag, plastic, tarpaulin etc. (Wooden centering will not be allowed.), with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)	Cum	5.00	7417.28	37,086.40
22.04	Providing and laying Cast in situ/ Ready Mix cement concrete in M-25 of trap/ quartzite/ granite/ gneiss metal for R.C.C. Waist slab, and steps of staircases as per detailed design and drawings or as directed including steel centering, plywood/ steel formwork, steel props, laying/ pumping, compaction, finishing uneven and honey combed surface with C.M. 1:3 of sufficient minimum thickness to give a smooth and even surface or roughening the surface if special finishis to be provided and curing etc. complete. (Excluding reinforcement, including cover block). (Newly laid concrete shall be covered by gunny bag, plastic, tarpaulin etc.) with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)	Cum	26.00	13567.61	3,52,757.86
22.05	Providing and Fixing mat finish stainless steel (of 302 grade) railing with top pipe of 50mm dia. and vertical pipe of 38mm dia at 0.60m c/c or as required and horizontal pipes of 25mm dia in three rows, all pipes of 2mm thick including buffing, fabricating fixtures and fastening including pipe base of appropriate diameter and ball base of 75mm dia above newel post of 75mm diameter etc. complete (Prior approval of sample and brand by Ex.Engineer is necessary before use)	Rmt	30.00	3722.25	1,11,667.50

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
22.06	Providing and laying machine cut machine polished machine cut Kota stone slabs 20 to 25 mm thick for treads and risers of steps and staircases, with rounded nosing for the treads on a bed of 1:4 cement mortar including cement float, filling joints with neat cement slurry, curing, polishing and cleaning etc. complete.	Sqm	25.00	1668.82	41,720.50
22.07	Providing and laying Polished Kota stone flooring With Hand-Cut Polished Kota Stones 25mm to 30mm thick and required width in plain/diamond pattern on bed of 1:6 Cement mortar including cement float, filling joints with neat cement slurry, curing, cleaning and Mirror Polishing etc. complete Note-Water absorption for kota stone should not exceed 0.05%. (Item to be used with prior permission of Superintending Engineer)	Sqm	43.00	1785.16	76761.88
22.08	Providing and fixing in required position skirting or dado of polished Kotah Stone slab 25mm to 30mm thick fixed on base on plaster of cement mortar 1:4 including cement float, filling joints with cement slurry, curing rubbing, polishing and cleaning complete.	Sqm	4.00	1579.77	6319.08
23.00	ROOFING WORK				
23.01	Removing Existing Mangalore tiles / AC / GI / Galvalume Sheets / polycarbonate plain and corrugated sheets from roof / cladding / partitions etc., excluding supporting structure but including scaffolding, handling, transporting, sorting and stacking at site lead up to 150m and or disposing etc complete as directed.	Sqm	176.00	127.00	22,352.00
23.02	Providing & installing flashings in 0.5mm pre painted galvalume steel (PPGL) Approved Make - Kingspan Jindal or equivalent	kg	11.00	252.00	2,772.00
23.03	Providing and fixing in position UV resistant, fire retardant, virtually unbreakable and temperature resistant (-40° C to +130° C) Polycarbonate corrugated sheet of 2mm thickness for roof of approved make to match the roof profile at any height with G.I. J hooks bolts of G.I. clamps nuts & bolts or with self drilling fastener and EPDM washer etc. complete as directed.	Sqm	65.00	1825.00	1,18,625.00
24.00	FABRICATION WORK				
24.01	Providing and fabricating structural steel work in rolled sections like joists, channels, angles, tees etc. as per detailed design and drawings or as directed including cutting, fabricating, hoisting, erecting, fixing in position making riveted/ bolted/ welded connections without connecting plates, braces etc. and including one coat of anticorrosive paint and over it two coats of oil painting of approved quality and shade etc. complete.	MT	7.00	106936.20	7,48,553.40
25.00	MISCELLANEOUS				
25.01	Dismantling steel work in built up sections in angles, tees, flats and channels of rolling shutters, grills, gates, fencing, hoardings, including all gusset plates, bolts, nuts, cutting rivets, welding etc. including dismembering and stacking within 50metres lead.	Kg	8216.00	4.00	32,864.00
25.02	Providing and fixing 900 mm high S.S. 304 Grade Stainless steel railing with 40mm diameter and 1.5mm thick at top, 40mm diameter and 1.5mm thick vertical supports spaced at 1.5m center to center and 8mm thick toughened glass including fabricating, fixtures, erecting, necessary welding, grinding, finishing, buffing to stainless steel pipe etc. complete.	Rmt	12.00	4939.20	59,270.40
25.03	Removing cast iron or wrought iron or A.C. pipe and stacking them as directed with all leads, lifts etc. complete.	Rmt	200.00	23.10	4,620.00
25.04	Providing and fixing P.V.C. Rain water pipes of 110mm outer diameter and having wall thickness of 2.2 to 2.7 mm confirming to I.S.13592-1992 including proper rain water receiving recess with P.V.C. plug, bend, necessary fittings, such as, offsets, shoes, including fixing the pipe on wall using approved wooden cleats projecting 25mm to 40mm from face of wall a fixing with clips of approved	Rmt	200.00	597.45	1,19,490.00

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
	quality and One Number, filing the joint using rubber gasket with solvent cement and properly resting the shoe of pipes on C.C. or masonry blocks, including necessary scaffolding and maintenance for 3 yrs for any leakages or dislocations of pipes. All the P.V.C. fittings and additional 2 piece socket clips shall be got approved from engineer in charge etc. complete.				
25.05	Removal of plants/ ficus grown by pulling out root system embedded in masnory, cutting stem and application of high/ gur/ lime formulation as specified by the Architect or other patented chemical biocide treatment such as biocide 'Glycel' (iso proplamine salt of glyphosate) or other chemical as specified by the Engineer in charge etc. complete.	Nos.	83.00	239.40	19,870.20
25.06	Providing antitermite treatment to the sides of flooring of the existing building as per I.S.6313 (Part-III) by punching holes 6mm dia. drilled at a distance of 30cm. centre to centre and injecting one percent of chlorodane emulsion concentrate at the rate of 50 ml per hole and sealing by filling putty etc. complete covering 2 years guarantee on bond paper.	Nos.	1261.00	27.30	34,425.30
25.07	Providing and fixing Jute Kantan (Tarat) screen to the scaffold-ing for external guniting as directed including removing the same after the work is over etc. complete.	Sqm	4346.00	71.40	3,10,304.40
25.07	Disposal of building rubbish / malba / similar unserviceable, dismantled or waste materials by mechanical means including loading, transporting, unloading to approved municipal dumping ground or as approved by Engineer-in-charge, beyond 50 m initial lead, for all loads including all lifts involved. For 25 Km Lead	Cum	417.00	616.35	2,57,017.95
				Total - Rs.	6,82,44,107.01
				Say - Rs.	6,82,44,108.00
26.00	ROYALTY				
25.01	Royalty Charges for Sand are to be paid to the contractor after producing receipt of royalty paid to the Govt. for the material used for this work.	Sqm	376.63	237.37	89,401.14
25.02	Royalty Charges for Other Minerals are to be paid to the contractor after producing receipt of royalty paid to the Govt. for the material used for this work.	Sqm	4.00	216.18	864.72
				Total - Rs	90,265.86
27.00	TESTING				
26.01	BASIC TEST OF CEMENT:- Standard Consistency, Fineness, Specific Gravity, Setting Time (Initial & Final), Compressive Strength, Soundness.	Test	4.00	3770.00	15,080.00
26.02	FINE AGGREGATES : Carrying out test of Fineness Modulus (Sieve Analysis), Silt & Clay Content	Test	4.00	1380.00	5,520.00
26.03	FINE AGGREGATES : Carrying out test of Fineness Chloride & Sulphate Content	Test	4.00	795.00	3,180.00
26.04	FINE AGGREGATES : Carrying out test of Silt Factor.	Test	4.00	850.00	3,400.00
26.05	WATER: PH Value, Sulphate & Chloride Content.	Test	3.00	1115.00	3,345.00
26.06	STEEL ANTI CORROSIVE TEST: Chemical Resistance Test. (Set of 8 Bars).	Test	3.00	2390.00	7,170.00
26.07	STEEL ANTI CORROSIVE TEST: Salt Spray Test (4 Cycles) (Set of 2 Bars).	Test	3.00	1485.00	4,455.00
26.08	STEEL BAR TESTING: Upto 16 mm (Set of 3 Bars)	Test	3.00	1275.00	3,825.00
26.09	BASIC TEST OF AGGREGATE: Water Absorption, Specific Gravity, Impact Value, Crushing Value.	Test	4.00	2600.00	10,400.00
26.10	CONCRETE: Compressive Strength OF C.C. Cube (Set of 3 cubes).	Test	20.00	690.00	13,800.00
26.11	CONCRETE: Concrete Mix Design (With all Tests on basic materials).	Test	4.00	13755.00	55,020.00
26.12	STONE/ RUBBLE: Crushing Value/Compressive Strength, Water Absorption & Specific Gravity,	Test	3.00	2020.00	6,060.00
		TOTAL – Rs.			1,31,255.00

	Name of Work : Repair and Upgradation of Studio 5 at Goregaon Filmcity				
ABSTRACT SHEET					
Item No.	Description	Unit	Qty.	Rate	Amount
A1	Civil Work for upgradation of existing Structure				
1.00	DEMOLITION WORK				
1.01	Removing doors and windows with frames and stacking the materials as directed with all leads, lifts etc. complete.	No.	0.00	163.80	0.00
1.02	Removing ventilators and small windows with frame and stacking the materials with all leads, lifts etc. complete.	No.	0.00	138.60	0.00
1.03	Removing cement tiles, or marble or polished shahabad floor or dado without bed concrete including stacking the materials as directed with all leads, lifts etc. complete	Sqm	0.00	47.25	0.00
1.04	Removing earthen, stonewate pipe and stacking them as directed with all leads, lifts etc. complete.	RMT	Quote Rate Only	23.10	0.00
1.05	Removing cast iron or wrought iron or A.C. pipe and stacking them as directed with all leads, lifts etc. complete.	RMT	Quote Rate Only	23.10	0.00
1.06	Dismantling the R.C.C. Work 1:2:4 and sorting out the materials such as steel etc. as directed and stacking them within the specified lead as directed etc. complete.	Cum	Quote Rate Only	1523.55	0.00
1.07	Removing urinal pans or wash hand basins with frame including disconnecting the sanitary and water supply connections, removing the same carefully and stacking the serviceable materials as and where directed including throwing the unserviceable materials outside etc complete	No	0.00	100.80	0.00
1.08	Removing W.C. pans including disconnecting the sanitary and water supply connections, removing and breaking flooring and bed con-crete around pan removing the same carefully and stacking the serviceable materials as adn where directed including throwing the unserviceable materiasls out side etc. carefully and throwing out the refusal outside etc. complete.	No	0.00	217.35	0.00
1.09	Removing chockes and leakages from down take G.I/CI/PVC pipe line on walls floor level by using zoola / scaffolding and rectify the same for functioning with all lifts etc. complete.	No	Quote Rate Only	328.65	0.00
1.10	Manually clearing the chockes from under ground drainage line including Inspection chambers with the help of required tools for propre functioning line chamber to chamber etc. complete.	No	Quote Rate Only	51.45	0.00
1.11	Manually clearing by removeing the chockes from Nahni Trap, Gully Trap, Wash basin unit, Sink and WC with the help of required tools for proper functioning the same etc. complete.	No	Quote Rate Only	195.30	0.00
1.12	Lowering down the debris obtained from breaking and removing the cement plaster / burnt brick masonry of the first floor by any means without causing dust nuisance and damage to structure, stacking the same as and where directed including cleaning the site complete.	Cum	Quote Rate Only	789.60	0.00
1.13	Dismantling aluminium/ Gypsum partitions, doors, windows, fixed glazing and false ceiling including disposal of unserviceable surplus material and stacking of serviceable material with in 50 meters lead asdirected by Engineer-in-charge.	Sqm	0.00	42.00	0.00
1.14	Dismantling & removing existing sanitary fixtures like bib cocks, shower head, accessories, water supply, sanitary, drainage pipes & fittings & carting away from the complex as per the rules and regulations of the Owner.	LS	0.00	5000.00	0.00
1.15	Removal of steel railing and refixing of railing to submersible bridges including cleaning and repainting etc complete	Rmt	0.00	531.30	0.00
2.00	EARTH WORK				

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
2.01	Excavation for foundation in earth, soil of all types, sand, gravel and soft muRmt, including removing the excavated material up to a distance of 50 m. beyond the building area and stacking and spreading as directed, dewatering, preparing the bed for the foundation and necessary back filling, ramming, watering including shoring and strutting etc.(Lift upto 1.5m) complete.	Cum	490.90	217.35	1,06,696.00
2.02	Excavation for foundation in earth, soil of all types, sand, gravel and soft muRmt, including removing the excavated material up to a distance of 50 m. beyond the building area and stacking and spreading as directed, dewatering, preparing the bed for the foundation and necessary back filling, ramming, watering including shoring and strutting etc.(Lift from 1.5 to 3m) complete.	Cum	490.90	270.90	1,32,984.00
2.03	Excavation for foundation in earth, soil of all types, sand, gravel and soft muRmt, including removing the excavated material up to a distance of 50 m. beyond the building area and stacking and spreading as directed, dewatering, preparing the bed for the foundation and necessary back filling, ramming, watering including shoring and strutting etc.(Lift from 3 to 4.5m) complete.	Cum	108.00	325.08	35,108.00
2.04	Providing dry/trap/granite/quartzite/gneiss rubble stone soling 15 cm to 20 cm thick including handpacking and compacting etc.complete.	Cum	39.43	1451.10	57,213.00
3.00	CONCRETE WORK				
3.01	Providing and laying Cast in situ / Ready Mix cement concrete in M15 of trap / granite / quartzite / gneiss metal for steps including steel centering, formwork, laying / pumping, compacting, roughening them if special finish is to be provided, finishing uneven and honey combed surface and curing etc. complete. The Cement Mortar 1:3 plaster is considered for rendering uneven and honey combed surface, only. Newly laid concrete shall be covered by gunny bag, plastic, tarpaulin etc.(Wooden centering will not be allowed.), with fully automatic microprocess or based PLC with SCADA enabled reversible DRmt Typemixer / concrete Batch mix plant (Panmixer) etc. complete. With fine aggregate (Natural Sand / Crushed sand VSI Grade finely washed etc)	Cum	17.14	6676.95	1,14,459.00
3.02	Providing and laying Cast in situ/Ready Mix cement concrete M-25 of trap / granite/quartzite/ gneiss metal for R.C.C. work in foundations like raft, strip foundations, grillage and footings of R.C.C. columns and steel stanchions etc. including bailing out water, Steel centering, formwork ,cover blocks, laying/pumping, compaction and curing roughening the surface if special finish is to be provided (Excluding reinforcement and structural steel) etc. complete, with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)	Cum	91.12	8362.76	7,61,981.00
3.03	Providing and fixing in position TMT - FE - 500 bar reinforcement of various diameters for R.C.C. pile caps, footings, foundations, slabs, beams columns, canopies, staircase, newels, chajjas, lintels pardis, copings, fins, arches etc. as per detailed designs, drawings and schedules. including cutting, bending, hooking the bars, binding with wires or tack welding and supporting as required complete.	MT	79.78	94188.15	75,14,293.00
3.04	Providing and applying "high strength, non shrink free flow grout material" i. e. micro concrete (like shrink comp or equivalent) having compressive strength as 400 Kilogram/sq.cm. including finishing the surface and curing for 07 days. Etc complete. The usage of this non shrink concrete with zero slump is to allow to occupy every free space leaving no voids, thereby producing dense concrete with proper bonding with concrete	Cum	0.40	70350.00	27,859.00

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
	(The quoted rates to be inclusive of all materials, labours, tools & tackles, transportation, taxes etc complete) to be applied for foundation and strengthening of pier etc and as per the direction of Site-In-Charge. (The product like Ultratech/Rendroc (RGL) of FOSROC or its equivalent)				
4.00	PLASTERING AND PAINTING WORK				
4.01	Providing internal cement plaster 12mm thick in single coat in cement mortar 1:3 without neeru finish to concrete or brick surfaces, in all position including scaffolding and curing etc. complete.	Sqm	Quote Rate Only	317.12	0.00
4.02	Providing waterproof plaster in W.C. and bath 12 mm thick for dado in cement mortar 1:3 with neat finishing, floating using waterproofing compound at the rate of 1 Kilogram. per bag of cement of approved make and manufacturer and curing etc. complete. (Excluding Tiles) (As directed by Engineer in Charge)	Sqm	Quote Rate Only	406.35	0.00
4.03	Providing and applying two coats of synthetic enamel paint of approved colour to new /old structural steel work and wood work in buildings, including scaffolding if necessary, cleaning and preparing the surface (excluding primer coat) etc. complete.	Sqm	Quote Rate Only	100.80	0.00
4.04	Providing and applying Two coats of wall care Putty on plastered surface and Ceiling and Walls to prepare surface even and smooth of approved make, etc complete. As directed by Engineer in charge	Sqm	197.20	94.50	18,635.00
4.05	Providing and applying two coats of textured synthetic paint of approved shade and quality and one coat of primer before applying textured paint including scaffolding if necessary preparing surface by thoroughly cleaning oil, grease, dirt and other materials as required, etc. complete.	Sqm	Quote Rate Only	171.15	0.00
4.06	Providing and applying two coats of exterior acraylic emulsion paint confirming to corresponding I.S. of approved manufacture and of approved colour to the plastered surfaces including cleaning ,preparing the plaster surface, applying primer coat ,scaffolding if necessary , and watering the surface for two days etc complete.	Sqm	Quote Rate Only	274.05	0.00
4.07	Providing and applying priming coat on concrete/ masonry/ Asbestos Cement plastered surfaces including scaffolding if necessary, preparing the surface by thoroughly cleaning oil, grease, dirt and other foreign matter and sand papering as required etc. complete.	Sqm	Quote Rate Only	37.80	0.00
4.08	Providing and applying plastic emulsion paint of approved quality, colour and shade to old and new surfaces in two coats including scaffolding, preparing the surface. etc. complete.	Sqm	197.20	84.00	16,565.00
4.09	Providing and applying two coats Apex Ultima Puranature Anti-Pollution Or equivalent approved brand, paint should decomposes organic substances and inorganic gases(NOx, VOC's, CO, SOx, formaldehydes, etc.) in presence of natural or artificial light. It contains Graphene and nanoparticles of titanium oxide. and Absorbs CO2 (4.8 Kilogram/15 l). plaster crack should be filled by Acrylic base Crack seal/Textured Crack filler, Paint has to applied on one coat of Apex Ultima Puranature Anti-Pollution Primer or Equivalent. Warranty Should be given by the Manufaturer The work should be done by the Manufacturer Recommended applicator and he should be able to furnish stage wise onsite technical reports from the concerned company technologist.	Sqm	569.79	390.60	2,22,561.00
4.10	Providing and Laying hot applied thermoplastic road marking strip on Bituminous Surface of specified shade/ colour of 2.5 mm thick including 1.5 Refractive index reflectorizing glass beads @ 250gm/sqm .Thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC 35:2015. Initial Dry reflectivity RL shall be > 250 mcd/sqm/lux measured in the initial 7 days and sustained reflectivity RL of 100 mcd/sqm/ lux and Qd of 100 mcd/sqm/ lux measured at the end of 2 years by means of a Standard Reflectometer of Zehntner, Easylux, Delta make capable of measuring RL & QD both according to	sqm	23.00	699.30	16,084.00

Item No.	Description	Unit	Qty.	Rate	Amount
	IRC 35:2015 clause 15.5. The finished surface to be level, uniform, and free from streaks and holes complete as per direction of Engineer-in-charge and in accordance with applicable specifications.(Refer MORTH Clause 803 for technical Specification and Performance for IRC 35:2015).				
5.00	PAVING FLOORING AND DADO				
5.01	Providing and fixing machine cut machine polished 18 mm to 20 mm thick telephone black / Amba White / Cat bary brown / RBI red / Ocean Brown granite stone for treads and risers of steps and staircases of approved colour and shade with rounded moulding and three grooved line for the treads on bed of 1:4 Cement mortar including float filling joints with neat cement slurry curing polishing and cleaning etc.	Sqm	0.00	4398.82	0.00
5.02	Providing and laying vitrified mirror /glossy finish tiles having size 590 mm to 605 mm x 590 mm to 605 mm of 8 to 10 mm thickness and confirming to IS.15622 -2006 (group Bla) of approved make, shade and pattern for dado and skirting in required position fixed in 1:4 cement mortar including neat cement float, filling joints, curing and clearing etc. complete	Sqm	0.00	1332.82	0.00
5.03	Providing and laying vitrified matt finish tiles having size 590 mm to 605 mm x to 605 mm of 8 to 10 mm thickness and confirming IS. 15622-2006 (Group Bla) of approved make, shade and pattern for flooring in required position laid on a bed of 1:4 cement mortar including neat cement float, filling joints, curing and cleaning etc. complete.	Sqm	0.00	1698.22	0.00
5.04	Providing and laying vitrified rustic matt stone finish tiles having size 590 mm to 605 mm x 590 mm to 605 mm of 8 to 10mm thickness and confirming to IS. 15622-2006 (Group Bla) of approved make, shade and pattern for flooring in required position laid on a bed of 1:4 cement mortar including neat cement float, filling joints, curing and cleaning etc. complete.	Sqm	Quote Rate Only	1875.67	0.00
5.05	Providing and laying vitrified rustic matt stone finish tiles having size 590 mm to 605 mm x 590 mm to 605 mm to 8 to 10mm thickness and confirming to IS. 15622-2006 (Group Bla) of approved make, shade and pattern for dado and skirting in required position fixed in 1:4 cement mortar including neat cement float, filling joints, curing and cleaning. etc. complete.	Sqm	Quote Rate Only	1954.42	0.00
5.06	Providing and fixing green marble of 18 to 20 mm thick for door frame/ dado/ window boxing etc. On C.M. 1:6 including filling joints with polymer base filler nosing / moulding the sharp edges wherever necessary, curing, etc. complete.	Sqm	0.00	2485.35	0.00
5.07	Providing and fixing heavy duty inter locking concrete Grey paving blocks of 60 mm thickness of having a strength of 300 Kilogram/Sq.cm. of approved quality and shape on a bed of crushed sand of 25 to 30 mm thick including skirting joints and cleaning etc. complete.	Sqm	150.00	882.00	1,32,300.00
5.08	Providing and fixing heavy duty inter locking concrete Grey paving blocks of 80 mm thickness of having a strength of 300 Kilogram/Sq.cm. of approved quality and shape on a bed of crushed sand of 25 to 30 mm thick including skirting joints and cleaning etc. complete.	Sqm	Quote Rate Only	1083.60	0.00
5.09	Providing and fixing heavy duty inter locking concrete Coloured paving blocks of 60 mm thickness of having a strength of 300 Kilogram/Sq.cm. of approved quality and shape on a bed of crushed sand of 25 to 30 mm thick including skirting joints and cleaning etc. complete	Sqm	Quote Rate Only	964.95	0.00
5.10	Providing and fixing heavy duty inter locking concrete Coloured paving blocks of 80 mm thickness of having a strength of 300 Kilogram/Sq.cm. of approved quality and shape on a bed of crushed sand of 25 to 30 mm thick including skirting joints and cleaning etc. complete	Sqm	Quote Rate Only	1224.30	0.00

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
5.11	Providing and laying Vitrified mirror/glossy finish having decorative type of size 590 millimeter to 605 millimeter x 590 millimeter to 605 millimeter of 8 to 10 millimeter thickness (on a existing flooring) with bonding chemical and confirming to IS 15622-2006 (Group Bla) of approved make shade and pattern for flooring in required position laid on a bed of bonding chemical filling joints curing and cleaning etc . complete.	Sqm	Quote Rate Only	1296.07	0.00
5.12	Providing and laying Vitrified MATT finish having decorative type of size 600 millimeter x 600 millimeter of 8 to 10 millimeter thickness (on a existing flooring) with bonding chemical and confirming to IS 15622-2006 (Group Bla) of approved make shade and pattern for flooring in required position laid on a bed of bonding chemical filling joints curing and cleaning etc .complete.	Sqm	Quote Rate Only	1736.02	0.00
5.13	Providing and laying Vitrified RUSTIC MATT STONE finish having decorative type tiles of size 600 millimeter x 600 millimeter of 8 to 10 millimeter thickness (on a existing flooring) with bonding chemical and confirming to IS 15622-2006 (Group Bla) of approved make shade and pattern for flooring in required position laid on a bed of bonding chemical filling joints curing and cleaning etc. complete.	Sqm	Quote Rate Only	1867.27	0.00
5.14	Providing and laying Vitrified STONE EFFECT FINISH having decorative type tiles of size 590 millimeter to 605 millimeter x 590 millimeter to 605 millimeter of 8 to 10 millimeter thickness (on a existing flooring) with bonding chemical and confirming to IS 15622-2006 (Group Bla) of approved make shade and pattern for flooring in required position laid on a bed of bonding chemical filling joints curing and cleaning etc. complete.	Sqm	Quote Rate Only	1913.47	0.00
5.15	Providing and laying telephone black / Amba White / Cadburybrown / Ruby red / Ocean Brown granite stone of 18 to 20 mm thick for door frame/ dado/ window boxing etc. On C.M. 1:6 including filling joints with polymer base filler nosing/moulding the sharp edges wherever necessary, curing, etc. complete.	Sqm	Quote Rate Only	4623.52	0.00
5.16	Providing & fixing 20mm +/- 2mm thick both side mirror polished approved colour Granite Urinal partitions of 600 mm wide & 1550 mm high with round edges moulding and fixed in C.M. 1:2and filling joints in white cement mixed with pigment to match the colour of granite including curing, cleaning etc.complete.(Basic Rate Rs 3600/sqm)	No	Quote Rate Only	6522.00	0.00
6.00	SANITARY FIXTURES				
Note:-	All sanitary fixtuers will be of Hindware/Rocca and C.P. fixtures will be Jaguar Make				
6.01	Providing and fixing white vitreous china flat back or wall corner type lipped front urinal basin of 430x260x350mm and 340x410x265mm sizes respectively with automatic flushing cistern with standard flush pipe and C.P. brass spreaders with brass unions and G.I clamps complete, including painting of fittings and brackets, cutting and making good the walls and floors wherever required :				
6.01(a)	Range of two urinal basins with 5 litre white P.V.C. automatic flushing cistern	Each	Quote Rate Only	9774.00	0.00
6.02	Providing and fixing water closet squatting pan (Indian type W.C. pan) with 100mm sand cast Iron P or S trap, 10 litre low level white P.V.C. flushing cistern, including flush pipe, with manually controlled device (handle lever) conforming to IS : 7231, with all fittings and fixtures complete including cutting and making good the walls and floors wherever required :				
6.02(a)	White Vitreous china Orissa pattern W.C. pan of size 580x440mm with integral type foot rests.	Each	0.00	7810.00	0.00

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
6.03	Providing and fixing white vitreous china pedestal type water closet (European type W.C. pan) with seat and lid, 10 litre low level white P.V.C. flushing cistern, including flush pipe, with manually controlled device (handle lever), conforming to IS : 7231, with all fittings and fixtures complete including cutting and making good the walls and floors wherever required :				
6.03(a)	W.C. pan with ISI marked white solid plastic seat and lid	Each	0.00	8007.00	0.00
6.04	Providing and fixing wash basin with C.I. brackets, 15 mm C.P. brass pillar taps, 32 mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever require :				
6.04(a)	White Vitreous China Wash basin size 630x450 mm with a pair of 15 mm C.P. brass pillar taps.	Each	0.00	3850.00	0.00
6.05	Providing and fixing 600x450 mm bevelled edge mirror of superior glass (of approved quality) complete with 6 mm thick hard board ground fixed to wooden cleats with C.P. brass screws and washers complete.	Each	Quote Rate Only	1919.00	0.00
6.06	Providing and fixing mirror of superior glass (of approved quality) and of required shape and size with plastic moulded frame of approved make and shade with 6 mm thick hard board backing				
6.07	Providing and fixing wall mixer with overhead shower, shower arm, hand shower with wall bracket having flow rate up to 12 liters/minutes of Jaquar/Cera/Hindware /Perryware or equivalent make including all necessary pipes, fittings etc. complete as directed by Engineer In Charge. (Make shall conform to manufacturer's Green product and shall got approved from the Engineer In Charge.)	Each	0.00	5759.25	0.00
6.08	Providing and fixing C.P. Brass two way bib cock with flange of approved quality and make.	Each	0.00	1116.00	0.00
6.09	Providing and fixing 15 mm diameter PVC Aqua kraft type of approved make super jet spray with flange 2 in 1 faucet 1.50 metre long including all accessories etc complete	No	0.00	808.50	0.00
6.10	Providing and fixing C.P. Angular stop clock with wall flange Jaquar make or equivalent continental (CAT.NO. CON-059) including necessary sockets/union nut etc. complete. Spec No. As directed by Engineer in charge	No	0.00	2821.35	0.00
6.11	Providing and fixing C.P. pillar cock long neck with aerator jaquar or equivalent make continental (CAT.NO. CON -021) including necessary sockets/union nut etc. complete. Spec No. As directed by Engineer in charge.	No	0.00	1706.25	0.00
6.12	Providing and fixing JAQUAR MAKE, C.P. Towel rail 24" continental (Cat. No. ACN 1111N) including brackets, all fixtures, fittings and making good the wall wherever required etc. complete.	No	0.00	1329.00	0.00
6.13	Providing and fixing JAQUAR MAKE, HOTELIER series Model No. 1551 Toilet Paper Holder Recessed type (S.Steel) including cutting and making good the wall wherever required etc complete	No	0.00	1690.00	0.00
6.14	Providing and fixing ISI marked make CP brass liquid soap dispensers with CP brass bracket capacity 250 ml.	No	0.00	2748.00	0.00
6.15	Providing & Fixing 100mm diameter Nahani trap Jali in steel finish with necessary fixing required to make the item well functional.	No	0.00	437.00	0.00
7.00	PLUMBING				
7.01	Providing and fixing on walls/ ceiling/ floor 15 mm dia. CPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	Rmt	Quote Rate Only	279.30	0.00

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
7.02	Providing and fixing on walls/ceiling/floor 20 mm dia. CPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	Rmt	0.00	325.50	0.00
7.03	Providing and fixing on walls/ ceiling/ floor 25 mm dia. CPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	Rmt	Quote Rate Only	393.75	0.00
7.04	Providing and fixing on walls/ ceiling/ floor 32 mm dia. CPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	Rmt	0.00	452.55	0.00
7.05	Providing and fixing on walls /ceiling/ floor 40 mm dia. CPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	Rmt	Quote Rate Only	565.95	0.00
7.06	Providing and fixing on walls/ ceiling/ floor 50 mm dia. CPVC pipe with necessary fittings, remaking good the demolished portion etc. complete.	Rmt	Quote Rate Only	778.05	0.00
7.07	Providing and fixing on walls/ceiling/floor 20 mm dia. uPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	Rmt	0.00	303.45	0.00
7.08	Providing and fixing on walls/ ceiling/ floor 25 mm dia. uPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	Rmt	0.00	372.75	0.00
7.09	Providing and fixing on walls/ ceiling/ floor 32 mm dia. uPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	Rmt	0.00	432.60	0.00
7.10	Providing and fixing on walls /ceiling/ floor 40 mm dia. uPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	Rmt	0.00	546.00	0.00
7.11	Providing and fixing on walls/ ceiling/ floor 50 mm dia. uPVC pipe with necessary fittings, remaking good the demolished portion etc. complete.	Rmt	0.00	803.25	0.00
7.12	Providing and fixing in position uPVC/SWR (Soil/Waste/Rain) pipe of type-B 75 mm dia. in any position including all fittings and accessories, making joints / connections water tight with solvent cement, scaffolding if necessary and making good the damages if any (excluding excavation and refilling the trenches) etc. complete as specified and directed.(All fittings and accessories like clamps,etc. should be of same brand. No separate payment shall be made for fittings and accessories).	Rmt	0.00	271.00	0.00
7.13	Providing, fixing and testing heavy quality gun metal or brass ball valve with screwed ends 20kgm class on GI or copper pipe lines (Leader/ZOLOTO make) 20 mm (3/4") dia.	No	0.00	794.00	0.00
7.14	Providing, fixing and testing heavy quality gun metal or brass ball valve with screwed ends 20kgm class on GI or copper pipe lines (Leader/ZOLOTO make) 25 mm (1") dia.	No	Quote Rate Only	1088.00	0.00

Item No.	Description	Unit	Qty.	Rate	Amount
7.15	Providing, fixing and testing heavy quality gun metal or brass ball valve with screwed ends 20kgm class on GI or copper pipe lines (Leader/ZOLOTO make) 32 mm (1 1/4") dia.	No	0.00	1582.00	0.00
7.16	Providing, fixing and testing heavy quality gun metal or brass ball valve with screwed ends 20kgm class on GI or copper pipe lines (Leader/ZOLOTO make) 40 mm (1 1/2") dia.	No	Quote Rate Only	2443.00	0.00
7.17	Providing, fixing and testing heavy quality gun metal or brass ball valve with screwed ends 20kgm class on GI or copper pipe lines (Leader/ZOLOTO make) 50 mm (2") dia.	No	Quote Rate Only	3227.00	0.00
7.18	Providing and fixing in position uPVC/SWR (Soil/Waste/Rain) pipe of type-B 75 mm dia. in any position including all fittings and accessories, making joints / connections water tight with solvent cement, scaffolding if necessary and making good the damages if any (excluding excavation and refilling the trenches) etc. complete as specified and directed.(All fittings and accessories like clamps,etc. should be of same brand. No separate payment shall be made for fittings and accessories).	Rmt	0.00	271.00	0.00
7.19	Providing and fixing in position uPVC/SWR (Soil/Waste/Rain) pipe of type-B 110 mm dia. in any position including all fittings and accessories, making joints / connections water tight with solvent cement, scaffolding if necessary and making good the damages if any (excluding excavation and refilling the trenches) etc. complete as specified and directed.(All fittings and accessories like clamps,etc. should be of same brand. No separate payment shall be made for fittings and accessories).	Rmt	0.00	414.00	0.00
7.20	Providing and fixing P.V.C. Rain water pipes of 160mm outer diameter and having wall thickness of 2.2 to 2.7 mm confirming to I.S. 13592-1992 including proper rainwater receiving recess with P.V.C. plug, bend, necessary fittings, such as, offsets, shoes, including fixing the pipe on wall using approved wooden cleats projecting 25mm to 40mm from face of wall a fixing with clips of approved quality and One Number ,filing the joint using rubber gasket with solvent cement and properly resting the shoe of pipes o C.C. or masonry blocks, including necessary scaffolding and maintenance for 3 yrs for any leakages or dislocations of pipes. All the P.V.C. fittings and additional 2 piece socket clips shall be got approved from engineer in charge etc. complete.	Rmt	29.00	1555.05	45,096.00
7.21	Supplying, laying, jointing & testing UPVC Drainage class pipes of FoamcoreAstral(SN 8) or equivalent make in solvent cement joint including leveling with cutting the pipe to required length, roughining of pipe at wall joint including socket as directed: 200 mm pipe	Rmt	58.00	1400.00	81,200.00
7.22	Booster Pump system (At Terrace Level) Supply, Installation, Testing And Commissioning Of Compact Self Contained Skid Mounted factory fitted & factory tested Hydropneumatic Booster Pump System As Follows: In-Line, Multisage, centrifugal pumps with SS-304 casing and impeller and SS-316 shaft, CI base & head TEFC motor (with mechanical seal) (Vendor to submit performance curves and technical catalog of the proposed model for review & information) The pump shall be selected for performance at best efficiency point. However, the pump selection shall be suitable for performance with set point @ + 20% of the rated head. Flow rate : As described below Head : As described below Mtr Purpose : Domestic/ Flush/ DM/ Drinking water supply	No	0.00	460000.00	0.00

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
	External Pump mounted or wall mounted microprocessor PID controller and frequency inverter integrated in a single body or as separate components 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 protocol through RS485 port (Variable Frequency Drive). System should be capable to compensate for frictional losses at lower flows. All alarms should be displayed in the controller. System should be equipped with dry running protection. Quantity : 1 Nos. Complete (Skid mounted wall mounted / floor mounted) electrical control panel comprising of all accessories such as PLCs, pressure switches, pressure transducers, control wiring and any other necessary imports etc. (list to be provided by the vendor). Panel Should be with IP 54 Class of protection. Precharged diaphragm pressure vessel with food grade membrane, charging connection, connected to outlet header with necessary flanges, gaskets, isolating valves, nuts/bolts etc complete. Set of accessories such as pressure switches, pressure transducers, inter connecting power and control cabling etc. complete Including accessories like NRVs, Y Stainer, isolating valves, SS-304 (non-Magnetic) suction and delivery header, pressure gauge, MS base frame (Synthetic enamel painted over a coat of primer) etc. Booster Pump System (1 Set = 1W + 1S) 170 LPM @ 18 MTR (STUDIO 5)				
8.00	DOORS AND WINDOWS				
8.01	Solid Core Flush door Single leaf Providing and fixing factory made solid core flush door in single leaf 35 mm thick, decorative types, of exterior grade, as per detailed drawings, conforming to I.S.:2202 - 1962 (Revised) with approved face veneers on both faces with/without glazing and venetians in the positions shown on the drawings or as directed, all necessary beads, moulding and lipping, holdfasts, mat finish stainless steel fixtures fastenings, finishing with french-polish/ waxing complete. (without door frame).(Sample to be got approved from Ex.Engineer before use) Commercial Hard Wood shutter	Sqm	0.00	2887.50	0.00
8.02	Solid Core Flush door Double leaf Providing and fixing factory made solid core flush door shutters in double leaves 35mm thick,decorative type of exterior grade, as per detailed drawings, conforming to I.S.: 2202 – 1966 (Revised) including approved face veneers on both sides, without glazing and venetians including mat finish stainless steel fixtures and fastening, stoppers and finishing with french polishing etc. (Excluding door frame)(Sample to be got approved from Ex. Engineer before use) Commercial Hard Wood shutter	Sqm	Quote Rate Only	3255.00	0.00
8.03	Providing and fixing in position anodised (as per IS 1868/1982) Aluminium fixed staggered (Z Type) Ventilator with aluminium rectangular pipe 63 mm x 38.10 mm x 1.22 mm at weight 0.650 Kilogram/One Running Metre, Aluminium angle of size 15 mm x 15 mm x 1 mm,aluminium channel of 9 mm sizes, S.S.mosquito net of 304 Grade,4 mm thick float glass per detailed drawing and as directed by Engineer in charge etc.complete.	Sqm	0.00	4148.55	0.00
9.00	INTERIOR WORK				
9.01	Providing and fixing in position Gypsum board false ceiling with 12.5 mm thick Gypsum boards, screwed/fixed to the under structure of suspended G.I. Grid constructed and suspended from the main.	Sqm	0.00	1857.45	0.00

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
	ceiling consisting of ceiling sections of size 25 x 50 mm maximum center to center distance of 600 milimetre perimeter channel and intermediate channels at maximum center to center distance 1200 milimetre galvanized grid should be fixed to reinforced cement concrete slab. The gypsum board should be fixed to galvanized iron grid with necessary screws. The boards should be taped and filled from underside to give smooth, seamless ceiling. The rate should include necessary additional ceiling sections and intermediate channels. Additional intermediate channels should be fixed to strap hangers for additional support to prevent strapping at every 1200 milimetre item to be completed in all respect including necessary sleeves for ducts finishing of joints cut outs, painting including labour, material, lifts etc. all complete				
9.02	Providing and fixing false ceiling with eco-friendly light weight calcium silicate tiles of Spintone/cosmos surface textured "Aerolite " make or equivalent of size 595 x 595mm having 15 mm thick densified microlook edge and 100% humidity resistance, incombustible as per BS 476 Part IV and thermal conductivity 0.043 w/m° KC and NRC 0.50 placed in true horizontal level suspended grid of size 600x600 mm made from hot dipped GI steel sections on Sillhoutte profile, rotary stitched double webbed white with 6mm reveal profile (white/black), where in main T runner of size 24 mm x 38mm and 0.33 mm thick @ 1200mm center to center and cross T of size 24mm X 28 mm and 0.33 mm thick, 1200 mm long spaced between main tee at 600 mm centre to centre and secondary cross T of Size 24mm X 28 mm x 0.33 thick of length 600 mm to be inter locked at middle of the first cross T in each panel to form grids of 600 mm x 600 mm and resting on periphery wall profile wall section 24 mm x 24mm x 0.40 thickness and laying false ceiling for services like diffusers grills including cutting, making opening for light fitting, fixtures, smoke detectors etc. wherever required, main tee runner to be suspended form ceiling using G.I. soffit cleats of size 25 x 35 x 1.6 mm of required length fixed to the ceiling with 12.5mm dia and 50 mm long dash fastener, 4 mm dia G.I adjustable rods with good quality G.I level adjustment clips of 85 X 30 X 0.8mm spaced at 1200 mm center to center along main tee all complete at all heights as per specifications, drawings and as per direction of Engineer - in - Charge.	Sqm	0.00	2374.00	0.00
9.03	PROVIDING AND FIXING MODULAR ACOUCTICAL WOODEN WALL PANELLING: Of nominal width 100 / 150mm, having 80mm wide panel with 20mm reveal having a thickness of 15mm thickness and length 2400 mm. The panel shall be made of a Moisture resistant fibre board substrate having a minimum density of 595 Kg/m3 with a laminated facing as per the approved shade (Portland Maple, Sea Beech, Siam Wood & Mystique Walnut) and a melamine balancing layer on the reverse side. The panel shall have 0.7mm PVC edge banding along the length side with a similar finish as that of the face. The back of the panel shall have a black acoustic felt to cover the reveal of 20mm to attain an NRC of 0.4 for 150mm. / 0.5 for 100mm. module (Average value of Absorption Co-efficient readings taken at 250 Hz, 500 Hz, 1000 Hz and 2000 Hz) as per ASTM C423. The panels shall provide a Humidity Resistance (RH) of 70% with camber limit less than 1mm/1000mm and bow less than 1mm/300mm. The back of the panels shall be profile-grooved to receive 3600mm special main beam carrier with integrated factory fitted clips for installation.	Sqm	Quote Rate Only	11386.20	0.00

Item No.	Description	Unit	Qty.	Rate	Amount
	SUSPENSION: The panels shall be upward mounted on 24 mm wide T - section flanges having rotary stitching along the length of the beam with a web height of 43mm. The Main Beam shall have integrated (factory fitted) locking clips installed at 100 / 150mm centre to centre distance. The deflection loading of the main beam tested as per ASTM C635 (Deflection limit less than L/360) shall be at least 21.4kg/m. The end details of the main beam shall be made of pre hardened steel and fixed to the ends with 3 point fixing. All main beam to main beam connection shall have a pull out strength of more than 100kg. The T Sections shall be made of hot dipped galvanized steel of 100 gsm as per IS 277 (2003) and pre-painted steel with baked polyester paint with OT bending capability. Installation should be carried out as per Manufacturer recommended procedure. The grid shall be installed with suspension system of Manufacturer make.				
9.05	Providing & Fixing False Ceiling comprising of following material including fixing in galvanized steel sections with white color coated cap comprised of main tee 34 mm x 24 mm (heavy duty as per ASTM C - 635 standard tested) with pre-punched cross tee slots (at every 100 mm c/c) to be placed at 1200 mm c/c, suspended with 4 mm GI (TATA MAKE) straightened wire at every 1.2 mtr, other end of the wire provided with GI J hook & nut. All the false ceiling panels around the perimeter of the false ceiling & around the RCC columns shall rest on the perimeter G.I. molding of size 19 mm x 19 mm which is fixed to the walls with help of rawal plug & GI screw at the same level as false ceiling. The cross tee of 1200 mm length (26 mm x 24 mm wide Heavy duty) shall be locked in main tee at every 600 mm c/c. to form grid of 600 x 1200 mm. Further 600 mm long tee need to be locked in to 1200 mm tee to make the final grid of 600 mm X 600 mm, including making provision for cutouts and / or trap door for electrical and mechanical systems, etc complete as directed by Engineer In charge. With Armstrong or equivalent Orcal Lay in metal ceiling System consisting of 600x600mm Lay in tiles of pre coated galvanised steel in 0.5/0.4 mm thickness in white colour with standard perforation of 2.5mm dia & open area of 16%. The back of the tile should have black acoustical fleece with NRC of 0.70 & CAC 36 with life time warrantee against sag in module size 595 mm X 595 mm at required height above FFL	Sqm	2676.00	1924.00	51,48,624.00
10.00	REBARING AND ANCHORING BOLTS				
10.01	Providing and fixing the Chemical Anchor Fasteners as specified below of Hilti Make or equivalent confirming to IS 1367 (Part 3) at required locations and level including drilling the hole, cleaning with blow pump and anchoring the bolt with chemical as per manufacturers specifications etc. complete as directed by Engineer In Charge.				
10.01(a)	M12 x 110 foil capsule (HVU) & M12 x 160 Rod	Nos	795.00	327.00	2,59,965.00
10.01(b)	M16 x 125 foil capsule (HVU) & M16 x 190 Rod	Nos	265.00	433.00	1,14,745.00
10.01(c)	M20 x 170 foil capsule (HVU) & M20 x 240 Rod	Nos	265.00	579.00	1,53,435.00
11.00	ELEVATION TREATMENT				
11.01	Designing, providing & Fixing (at all levels) in position factory made precast Glass fiber reinforced polymer (GFRP) and structural reinforcing the same as required as per approved manufacture's specification and as per approved drawings. The thickness of GFRP panel should not be less than 5mm with minimum 5 m thick GRP pads acting as inbuilt stiffeners, Fire resistant Resin of GP grade shall be used of approved make. Colour and texture should be approved by Engineer in charge. Fixing of Including making frame over the Primary main structure by using suitable MS sections. GFRP panel on primary structure shall be done by dry cladding method with the help of SS screw fixtures, MS angle cleats,	Sqm	3033.81	11000.00	3,33,71,952.00

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
	fissures plug and Dowel pin etc. in proper alignment, line and level as per the approved drawing, Finishing with GFRP powder filling the joints with paintable silicon sealant neatly between GFRP panel and primary structure to provide one piece look including moulding and cornice at junction of column and beams as per approved drawing, including necessary MS abrication work to support GFRP structure, necessary scaffolding at all levels and staging etc. Including painting with one coat of primer and minimum two coats of paint in Duco finished with one protective coat of lacker, complete as per manufactures specification. The rate shall include all necessary scaffolding, anchoring/bolting and necessary civil/ fabrication work as per Standard specifications as per approved design and as directed by Engineer-in-charge. GFRP decorative emblem with details shall be as per drawing and carvings as shown in 3 dimension up to a thickness of 150 mm with scroll designs, floral designs, dentals, flutings etc., Item to include checking all surfaces for proper line and level etc. complete. Item includes preparing up to 2 samples for the Architects approval. Item to include making of the clay model and mould for the decorative cornice and supply of the decorative cornice as per approved sample executed in fiber glass material.				
12.00	MISCELLANIOUS WORK				
12.01	Providing water proof bedding for flooring of Bath and WC 25 mm thick in C.M. 1:3 including using approved water proofing compound in specified proportion as per manufacturers specifications for per bag of cement including leveling, curing and covering 10 years guarantee on court fee stamp paper of Rs.500/- including ponding test etc.complete. As directed by Engineer in charge.	Sqm	Quote Rate Only	477.01	0.00
12.02	Providing, fabricating & fixing in position S.S. 304 grade pipe railing for staircase consisting of 18 gauge 50 mm dia. S.S.pipe as top rail,18 gauge 40 mm dia S.S. pipe as verticals, 18 gauge 25 mm dia as secondary rails, including fixing the verticals to the staircase pardi by means of base plate with socket & anchor fasteners,grinding the welded portion smooth,buffing, protecting the railing members by means of wrappers during construction etc. complete as directed by the Engineer in charge	Rmt	0.00	2892.00	0.00
12.03	Providing and fabricating structural steel work in rolled sections like joists, channels, angles, tees etc. as per detailed design and drawings or as directed including cutting, fabricating, hoisting, erecting, fixing in position making riveted / bolted /welded connections without connecting plates, braces etc. and including one coat of anticorrosive paint and over it two coats of oil painting of approved quality and shade etc. complete.	MT	43.90	106936.20	46,94,354.00
12.04	Providing & Fixing 15 mm thick solid white acrylic laser cut out Logo etc complete . (as per client / Architectural approval)	Sqm	Quote Rate Only	27.00	0.00
12.05	Directional signage Design, supply, fabrication and fixing acrylic multilingual Braille (raised dots) directional signboards of size 6" x 9" designed as per accessibility standards and having 4mm thick acrylic base plate with Upper Case San Serif words made of white acrylic non glare cut out letters of height 15mm raised not less than 0.8mm above base plate and the equivalent word written in Hindi with Devnagri non glare acrylic letters of height 15mm raised not less than 0.8mm above base plate and having a non glare acrylic cut arrow pointing in the required direction. Each signboard to be fixed as per manufacturers specifications on the wall at the approved location and at a height of 1200mm from FFL and as per the directions by the engineer in charge.	No.	1.50	1714.65	2,572.00

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
12.06	Providing and casting insitu or precast tapering R.C.C. M-20 Barrier type Kerb without gutter (as per IRC 861983) embedded 125 mm below ground level over M-10 PCC finished neatly with C.M. 1:2, setting the same in C.M. 1:2, including the required excavation in any strata and removing the excavated stuff any where in city and redoing the surface as specified and directed by Engineering In-charge. Using Concrete Batching and Mixing Plant.	Rmt	120.00	581.70	69,804.00
12.07	Disposal of building rubbish / malba / similar unserviceable, dismantled or waste materials by mechanical means including loading, transporting, unloading to approved municipal dumping ground or as approved by Engineer-in-charge, beyond 50 m initial lead, for all loads including all lifts involved. For 25 Km Lead	Cum	26.76	616.35	16,493.49
13.00	HORTICULTURE WORK				
13.01	Planting Shrubbery on Soft/Hard surface: Filling Red Hill Earth & Cow Dung Manure in the excavated area mixing in 2:1 proportion, watering, weeding after every watering before planting the shrub, leveling, providing and planting well grown, healthy, bushy shrubs including transport and unloading as per specified variety and sizes, planting at desired location and specified distances, maintaining for 1 month after completion of plantation and replacement of casualties till 1 month.				
13.01(a)	Golden Duranta Bag size (10" x 10") Height Of Plant (30 cm to 45 cm)	No	30.00	36.75	1,103.00
13.01(b)	Fox tail palm Bag size (10" x 12") Height Of Plant (3 to 4 ft.)	No	10.00	220.50	2,205.00
13.02	POTTED PLANTS: Providing and displaying a combination of seasonal flower plants and indoor plants (minimum ht. 30 cm) developed fresh and healthy leaves in plastic pot to the satisfaction of client/ Architect. Scope includes adding good suitable plants with soil, new pots, garden cleaning, pots neatly placed in position, carrying of waste mulch, insert new garden soil with compost mixed, addition of cocopeat to hold moisture, all general garden care service. The period of the contract shall be six months. Plants will be property of owner after contract period. Activities included in the scope of work shall include strumming, laying, sweeping, watering, weeding, applying fertilizers, pesticides, planting trees/plants, cleaning and waste disposal. The required consumables for the service for the contract period 6 months shall include fertilizers, pesticides, seeds, good earth, plants/trees- flower, foliage, herb, shrub, bamboo etc., machinery, pots/container – plastic pots 12 inch dia. size. The service provider will quote cost inclusive of scope and selected consumables. List of approved plants and specification of plants is enclosed as under.				
13.02 (a)	Bird of Paradise Potted 3-4ft height	No	Quote Rate Only	338.00	0.00
13.02 (b)	Areca Palm Potted 3-4ft height	No	50.00	338.00	16,900.00
13.02 (c)	Bougainvillea Potted 3-4ft height	No	Quote Rate Only	238.00	0.00
13.02 (d)	Coleus potted 3-4ft height	No	Quote Rate Only	188.00	0.00
13.02 (e)	Catharanthus– Pink and white Flower 3-4ft height	No	Quote Rate Only	173.00	0.00

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
13.03	Artificial plants - Providing and fixing vertical garden mat made up of 100% pure PE Material with leaves including fixing the same on façade/walls at approved location with all necessary tools, tackles, Nails, Ties, fixtures and frames as per directions of engineer incharge. (size 600x400x30mm).	No	217.00	420.00	91,140.00
14.00	FURNITURE				
14.01	Providing and supplying center pivot, revolving, Mid back chair Depth-45cm, width-50cm, height- 105cm to 115cm & seat height- 45cm to 55cm. (+/- 2cm) with five legged metal / moulded nylon base with push back arrangement. Chairs shall have high density moulded, 360 revolving on suitable base, gas lift , heavy duty twin wheel castors to take min 80 kg/castor with two - pneumatic height adjustment one piece moulded type polypropylene armrest etc. complete. The chair shall be provided with approved tapestry upto Rs 300/m with necessary beading wherever required. All metal work shall be Epoxy Polyester Powder Coated and as directed by Architect in charge. The over all appearance of the product shall be as per photograph. All metal work shall be Epoxy Polyester Powder Coated and as directed by Architect in charge.	No.	0.00	12500.00	0.00
14.02	Supply, Installation, Testing & Commissioning of Adjustable Slotted angle racks for Material storage in dressing rooms, design shall be strictly as per the drawings, made from 20 gauge plates and 14 gauge angles. Rate shall include all necessary accessories, hardware components, transportation, installation, structural components, making good the scratches made during installation etc. as directed by the Engineer In charge. RACK DIMENSIONS - 1200 MM (length) X 400 MM (width) X 2100 MM (height) It will be divided into 4 (four) compartments / loading levels. Each compartment shall have load bearing capacity of each rack 100 Kg	No.	0.00	3500.00	0.00
14.03	Providing and fixing mirror of superior glass (of approved quality) and of required shape and size with plastic moulded frame of approved make and shade with 6 mm thick hard board backing : (Rectangular shape 1500x600 mm)	No.	0.00	3026.67	0.00
14.04	Providing table top of required size fixed at a standard table top height of up to 750mm min. (including table top thickness) to Modular partition. Table top shall be made of 25mm thick Marine ply (IS 710 : 2010) , FIRE RETARDENT laminate on all sides / surfaces. All edges of the work surface shall be provided with machine pressed PVC edge banding of 2mm thickness etc. complete. Table top to be principally mounted from the partition frame with suitable MS powder coated brackets which should be integrated into the partition frame etc. complete. (1200 X 600)	No.	0.00	3744.00	0.00
14.05	Single Bed @ 2025LX 1000DX 650H Providing and fixing Single Bed of Size 2025Lx1000Dx650H with mattress and pillow. Understructure: - The legs are made of Square tube of size 25 x 25mm made out of MS with a thickness of 1.2 mm. The legs should have corner brackets welded to it at two levels. The corner brackets are made of 2mm thick CRCA having a L shaped structure to join the side panels and headboard to the leg. Three nos. of Horizontal stiffeners are provided at equal intervals. The stiffeners are made of Square tube of size 25 x 25mm made out of MS with a thickness of 1.2mm. The middle Horizontal Stiffener has a leg attached to it to transfer the load to the ground and add to the strength and stability of the complete structure. This leg is also made of Square tube of size 25 x 25mm made out of MS with a thickness of 1.2mm.	No.	0.00	20335.35	0.00

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
	All Metal components to undergo 7 tank treatment process and should be powder coated to the thickness of minimum 50 Microns DFT. Side Panel: - The side panels are made up of 18mm thick Prelam Particle Board with both side decorative laminate. All exposed edges are sealed with 2mm thick PVC edge Banding. The overall width of the side panel is 150mm. The side panels have 18mm thick prelam particle board Baton running for required length to add rigidity to the structure. Head Board :- The head board is made up of 18mm thick Prelam Particle Board with both side decorative laminate. All exposed edges are sealed with 2mm thick PVC edge Banding. The head board size to be considered as 1000 x 650mm. Foot Board :- The foot board is made up of 18mm thick Prelam Particle Board with both side decorative laminate. All exposed edges are sealed with 2mm thick PVC edge Banding. The head board size to be considered as 1000 x 450mm. Bed Base: - The Bed Base is made up of 12mm thick Prelam Particle Board with both side White laminate.				
14.06	Providing & Fixing Dressing Table of size 600LX 900DX 750H. The Dressing table unit is made up of 18mm thick Prelam Particle Board with both side decorative laminate. All exposed edges are sealed with 2mm thick PVC edge Banding. The unit has one drawer and one shelf. The dressing table has a mirror of 4mm thick pasted on 18mm thick prelm particle board attached to the base unit. The mirror size considered is 900 x600 htx 4(t). The mirror has been pasted using high quality 3M sticker Mirror to have fframe metal /prelaminated board .	No.	0.00	20497.05	0.00
14.07	Providing and supplying Modular CUPBOARD made up of required size. Top made of 25mm Marine ply (IS 710 : 2010), having post formed decorative laminate of 0.8mm on top and FIRE RETARDENT laminate on all sides / surfaces etc. complete. Sides, Sides in 25mm thk Marine ply (IS 710 : 2010). Adjustable shelf made in 25mm thk Marine ply (IS 710 : 2010) placed on standard shelf pins etc. complete. Storage Back made of 9mm thick Marine ply (IS 710 : 2010) etc. Sides, Shutters, Bottom, adjustable shelf, finished 2mm thick machine pressed PVC Edge banding of required size etc. Hardware set to include 110 degree opening self- closing box hinges, Counter Sunk screw, S.S.Brush Finished, Handles L' Clips Selves support etc. complete. Multipurpose lock, Levelling Bolt with inserts etc. complete. Aluminium furniture feet – Round tube, diameter 40 mm with 100 mm height with suitable finish to match handles" Shape SS Brush finished handles as indicated in the drawing, suitable locking provision etc. complete	No.	0.00	16065.00	0.00
14.08	Providing and supplying corner table of required size with top made of 8mm thick bevelled glass and under structure made of 18mm thick Marine ply (IS 710 : 2010) with all exposed edge are finished with 2mm thick machine pressed PVC edge banding in matching colour. (Rehau Make/or Equivalent) for better impact resistance etc. complete. Nylon button stopper to hold glass top in position, Nylon bushers etc. complete.	No.	0.00	4806.00	0.00
		Total - Rs.		5,33,01,254.49	
		Say - Rs.		5,33,01,255.00	
A2	Repair Work for existing Structure				
15.00	STRUCTURAL REPAIR				
15.01	Repairing of honey combed or spilling area by chipping out the damaged spalled or honey combed portion of concrete upto rusted rebars, cleaning of all rust, scale and loose materials, scaffolding, compressed air machinery etc. complete.(item includes use of air compressor, chipping machine and scaffolding for height 8 to 10 meter)	Sqm	305.00	833.70	2,54,278.50

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
15.02	Removing corrosion of steel reinforcement by mechanical means like wire brushing, chipping to remove loose rust and then applying rust removal solution by using brush application, leaving the surface for at least 15 to 30 minutes, then removing loose materials by scrubbing or with brush. After detachment of loose scales reddish rusted surface is still left exposed, this has to be retreated or as per approved manufacturers specifications. (Note:- Consider surface area of concrete for payment)	Sqm	305.00	46.00	14,030.00
15.03	Anticorrosive treatment to expose reinforcement in two coats with time interval of minimum 4 hours between each coat. The application shall be done by brush.	Sqm	305.00	595.35	1,81,581.75
15.04	Providing and fixing in position TMT-FE-500 bar reinforcement of various diameters for R.C.C. pile caps, footings, foundations, slabs, beams columns, canopies, staircase, newels, chajjas, lintels pardis, copings, fins, arches etc. as per detailed designs, drawings and schedules.including cutting, bending, hooking the bars, binding with wires or tack welding and supporting as required complete.	MT	12.00	94188.15	11,30,257.80
15.05	the advice of the structural engineer responsible for the works. Bond Coat- (separate payment shall be made only for bond coat used for old surface to new surface) Providing & applying One coat of structural grade epoxy bond coat by brush conforming to ASTM-C-882-87 to the prepared concrete surface to be repaired / strengthened and repairing with PMM shall be done when the surface is tacky. Mixing - Only full bags are mixed. Damaged or opened bags should not be used. Mix the ready-mix Polymer Modified Mortar in a forced action pan mixer, or with a helical paddle attached to a low speed (300-600rpm) mixer for 3 minutes until a lump free, thixotropic consistency is achieved. Only use clean water. Mixing water needed: 3.75 to 4.25 litres per 25kg bag or as recommended by the Manufacturer of Polymer Modified Mortar. Allow the mortar to rest for 2 - 3 minutes and then remix briefly before pouring into formwork. If temperature more than 40°C then use chilled water for mixing. thereafter for optimum curing of the product. The prepared substrate should be presoaked, preferably for 24 hours, but at least 2 hours before applying Polymer Modified Mortar. The surface must be saturated surface dry, but without standing water. Polymer Modified Mortar can be spray- or hand-applied. Apply mixed product directly to the prepared damp substrate, or wet on wet onto the primed surface. Spraying the material with the necessary pressure will ensure good adhesion of the material. A thin scrape coat or contact layer before building up to the required thickness, wet on wet, will improve adhesion especially in case of hand application. Apply to the desired layer thickness upto 15 mm and level using a screeding bar, trowel or wooden board. Smoothing with a trowel or finishing by float or sponge can be done as soon as the mortar has begun to stiffen. Protective coatings Subsequent coatings of any anticarbonation barriers or silane impregnations should be applied if recommended by the Structural Engineer. Plaster- (No separate payment shall be made) The repaired surface shall be matched to the surrounding surface by providing required thickness of plaster internal or external plaster.	Sqm	53.00	3063.00	1,62,339.00

Item No.	Description	Unit	Qty.	Rate	Amount
	Curing Required Compressive strength (ASTM C109 7cm cube) Minimum 7 days curing shall be done to the newly repaired area using any suitable method. Ready Mix Polymer Modified Mortar used on site shall be sent for testing of compressive strength and minimum strength required to be achieved is as follows – 1 Day-15 MPa, 3 Day-25 MPa, 7 Day-35 MPa, 28 Day-45 MPa.				
15.06	Repairing to the existing RCC structural members (vertical or horizontal) using ready mix Polymer Modified Mortar (Fibre reinforced structural grade repair mortar) of approved brand where the thickness of repair is upto 30 mm in two layers. It can be used for carrying out extensive repairs to beams, columns, slab, and other structural elements, repairing of structural members subjected to repetitive loading for strengthening. Procedure for carrying out repair Polymer Modified Mortar – Surface preparation- (separate payment shall be made) All loose traces of concrete or mortar, dust, grease oil, etc. must be removed. Damaged or contaminated concrete shall be removed to obtain a keyed aggregate exposed surface. Non-impact/ vibrating cleaning methods, e.g. grit or high pressure water blasting are recommended. Clean all exposed reinforcement to a minimum grade of Sa 2 according to ISO 8501-1 / ISO 2944-4. Ensure all visible portions of the reinforcing bar is clean. Where reinforcing bars are corroded, cut back the concrete around the reinforcing bars, Grit blast to remove corrosion products from around reinforcing bars and coat with approved epoxy coating for corrosion protection or any other protective coating as recommended by the Structural Engineer to protect from corrosion. Replace the affected part of rebar if the diameter after grit blasting is found reduced by more than 20% of the original diameter on the advice of the structural engineer responsible for the works. Bond Coat- (separate payment shall be made only for bond coat used for old surface to new surface) Providing & applying One coat of structural grade epoxy bond coat by brush conforming to ASTM-C-882-87 to the prepared concrete surface to be repaired / strengthened and repairing with PMM shall be done when the surface is tacky. Mixing - Only full bags are mixed. Damaged or opened bags should not be used. Mix the ready-mix Polymer Modified Mortar in a forced action pan mixer, or with a helical paddle attached to a low speed (300-600rpm) mixer for 3 minutes until a lump free, thixotropic consistency is achieved. Only use clean water. Mixing water needed: 3.75 to 4.25 litres per 25kg bag or as recommended by the Manufacturer of Polymer Modified Mortar. Allow the mortar to rest for 2 - 3 minutes and then remix briefly before pouring into formwork. If temperature more than 40°C then use chilled water for mixing. Mortar application- The minimum temperatures must be maintained during application and for at least 24 hours thereafter for optimum curing of the product. The prepared substrate should be presoaked, preferably for 24 hours, but at least 2 hours before applying Polymer Modified Mortar. The surface must be saturated surface dry, but without standing water. Polymer Modified Mortar can be spray- or hand-applied. Apply mixed product directly to the prepared damp substrate, or wet on wet onto the primed surface. Spraying the material with the necessary pressure will ensure good adhesion of the material.	Kg	91.00	5866.00	5,33,806.00

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
	A thin scrape coat or contact layer before building up to the required thickness, wet on wet, will improve adhesion especially in case of hand application. Apply to the desired layer thickness upto 15 mm and level using a screeding bar, trowel or wooden board. Smoothing with a trowel or finishing by float or sponge can be done as soon as the mortar has begun to stiffen. Protective coatings Subsequent coatings of any anticarbonation barriers or silane impregnations should be applied if recommended by the Structural Engineer. Plaster- (No separate payment shall be made) The repaired surface shall be matched to the surrounding surface by providing required thickness of plaster internal or external plaster. Curing Minimum 7 days curing shall be done to the newly repaired area using any suitable method. Required Compressive strength (ASTM C109 7cm cube) Ready Mix Polymer Modified Mortar used on site shall be sent for testing of compressive strength and minimum strength required to be achieved is as follows – 1 Day-15 MPa, 3 Day-25 MPa, 7 Day-35 MPa, 28 Day-45 MPa.				
15.07(A)	Providing and applying epoxy mortar for repairs to cracked portions of RCC columns, piers, beams, girders, diaphragms, slabs, parapets etc. including chipping the loose cracked concrete, cleaning the surface and removing the rust thoroughly and completely by means of wire brushes, sand blasting and washing with water etc. rebuilding the section by first applying one coat of epoxy primer coat of araldite / GY 257 and hardener HY840 in 100:50 proportion by weight, applying epoxy mortar prepared by mixing araldite, hardener and quartzite sand in 100:50:900 proportion by weight in required shape and architectural finishes, if any, finishing the surface smooth including applying a seal coat of araldite and hardener in 100:50 proportion by weight with stiff nylon bristle brush etc. complete as specified as directed.	Kg	500.00	459.00	2,29,500.00
15.08	Repairing to the existing RCC structural members (vertical or horizontal) using ready mix Micro Concrete of approved brand where the thickness of repair is more than 30 mm and upto 115 mm. It can be used for carrying out extensive repairs to beams, columns and other structural elements, repairing of structural members subjected to repetitive loading & for Jacketing of beams, columns and other structural elements for strengthening. Procedure for carrying out repairing/jacketing using ready mix micro concrete- Surface preparation- (separate payment shall be made) All loose traces of concrete or mortar, dust, grease oil, etc. must be removed. Damaged or contaminated concrete shall be removed to obtain a keyed aggregate exposed surface. Non-impact/ vibrating cleaning methods, e.g. grit or high pressure water blasting are recommended. Cut the edges of the repair vertically to a minimum depth of 20 mm. Clean all exposed reinforcement to a minimum grade of Sa 2 according to ISO 8501-1 / ISO 2944-4. Ensure back of reinforcing bar is also clean. Where reinforcing bars are corroded, cut back the concrete to at least 20mm behind the reinforcing bars and coat old and new with approved epoxy coating for corrosion protection Water Powder ration Grit blast around the reinforcing bars to remove corrosion products or any other method recommended by Engineer In charge or Structural Consultant. Replace the affected part of reinforcing bar if the diameter after grit blasting is found reduced by more than 20% of the original diameter on the advice of the structural engineer responsible for the works. Bond Coat- (separate payment shall be made) Providing & applying One coat of structural grade epoxy bond	Kg	86073.00	41.00	35,28,993.00

	coat by brush conforming to ASTM-C-882-87 to the prepared concrete surface to be repaired / strengthened and micro concreting pouring shall be done when the surface is tacky. Formwork – (No separate payment shall be made) The forms must be of good quality, treated with a chemical release agent for smooth release, provided with water drain holes, strong and well braced to withstand the fluid pressure of the mortar until it hardens. Mixing - Only full bags are mixed. Damaged or opened bags should not be used. Mix the ready mix Micro Concrete in a forced action pan mixer, or with a helical paddle attached to a low speed (300-600rpm) mixer for 3 minutes until a lump free, flowable consistency is achieved. Only use clean water.				
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Item No.	Description	Unit	Qty.	Rate	Amount
	Mixing water needed: 3.25 to 3.75 litres per 25kg bag or as recommended by the Manufacturer of Micro Concrete. Allow the mortar to rest for 2 - 3 minutes and then remix briefly before pouring into formwork. If temperature more than 40°C then use chilled water for mixing. Mortar application- The minimum temperatures must be maintained during application and for at least 24 hours thereafter for optimum curing of the product. The prepared substrate should be presoaked, preferably for 24 hours, but at least 2 hours before applying Ready Mix Micro Concrete ensure all water is removed from formwork prior to installation and formwork is resealed. Ready Mix Micro Concrete should be pumped or poured into the prepared formwork until the void is filled. Pumping is recommended for larger pours. Do not vibrate Ready Mix Micro Concrete as it could lead to segregation. The formwork should be removed after 1-3 days and a curing compound applied. If subsequent coats are to be applied the use of clear polythene is recommended for the first three days after removal of formwork. For repairs beyond 80mm to 100mm in thickness, extend Ready Mix Micro Concrete with up to 25kg of 5-12mm sized washed, saturated surface-dry (SSD), graded low absorption, high density aggregates. Protective coatings- (separate payment shall be made) Subsequent coatings of any anticarbonation barriers or silane impregnations should be applied if recommended by the Structural Engineer. Curing - Minimum 7 days curing shall be done to the newly repaired/jacketed area using any suitable method. Required Compressive strength (ASTM C109 7cm cube) Ready Mix Micro Concrete used on site shall be sent for testing of compressive strength and minimum strength required to be achieved is as follows – 1 Day-15 MPa, 3 Day-25 MPa, 7 Day-35 MPa, 28 Day-40 MPa. Note Payment is to be made by weight premixed of micro concrete product consumed as per site register records.				
15.09	Providing and laying insitu / ready mix M35 grade RCC jacketing work around the existing piers of bridges etc. complete. (with fully automatic micro processor based PLC with SCADA enabled concrete batch mix plant / pan mixer with fine aggregates of required specifications (VSI sand finely washed etc), height of 8 to 10 meter).	Sqm	31.00	8986.79	2,78,590.37
15.10	Providing & applying structural grade epoxy approved bond coat prior to application of any type of mortar confirming to IS codes or equivalent to ensure bond between old concrete & new concrete by brush application etc complete.	Sqm	305.00	774.90	2,36,344.50
15.11	Sealing of cracks/porous concrete by injection process through nipples/Grouting complete as per Technical specification Cement Grout	Kg	275.00	261.00	71,775.00
15.12	Providing Grouting of nozzles with Low Viscosity Epoxy grout including material, labour complete in all respect.	Kg	15.00	1741.95	26,129.25

15.13	Providing and inserting nipples with approved fixing compound after drilling holes for grouting as per Technical specifications including subsequent cutting/removal and sealing of the hole as necessary of nipples after completion of grouting with Cement/Epoxy	Each	99.00	215.00	21,285.00
16.00	JACKETING				
16.01	Dismantling brick masonry in lime or cement mortar and stacking the materials as directed with all leads, lifts etc.	Cum	14.00	351.75	4,924.50
16.02	Providing second class Burnt Brick masonry with conventional/ I.S. type bricks in cement mortar 1:6 in superstructure including striking joints, raking out joints, watering and scaffolding etc. Complete	Cum	7.00	8866.43	62,065.04

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
16.03	Removing rich mix cement concrete including stacking the spoils as directed with all leads, lifts etc, complete.	Cum	1.00	976.50	976.50
16.04	Excavation for foundation in earth, soil of all types, sand, gravel and soft murum, including removing the excavated material upto a distance of 50m. beyond the building area and stacking and spreading as directed, dewatering, preparing the bed for the foundation and necessary backfilling, ramming, watering including shoring and strutting etc. complete. (Lift upto 0.00 to 1.50 m.) By Manual Means	Cum	3.00	329.70	989.10
16.05	Providing dry/ trap/ granite/ quartzite/ gneiss rubble stone soling 15cm to 20cm thick including hand packing and compacting etc. complete	Cum	2.00	1817.49	3,634.98
16.06	Providing and laying Cast insitu/ Ready Mix cement concrete in M15 of trap/ granite/ quartzite/ gneiss metal for foundation and bedding/ steps including steel centering, formwork, laying/ pumping, compacting, roughening them if special finish is to be provided, finishing uneven and honey combed surface and curing etc. complete. The Cement Mortar 1:3 plaster is considered for rendering uneven and honey combed surface, only. Newly laid concrete shall be covered by gunny bag, plastic, tarpaulin etc. (Wooden centering will not be allowed.), with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)	Cum	1.00	7417.28	7,417.28
16.07	Shear Connectors: Make 10/12 mm dia holes using heavy duty electrically operated hammer drills in the concrete of RCC members to a depth of about 75 mm at 500 mm c/c or at suitable grid in zig-zag fashion, clean the holes using air jet and fix pre- fabricated 100 x 50 mm L-shape 8 mm dia rebar using Anti Corrosive protective coating so that 75 mm out of 100 mm is inserted inside the concrete and 25 mm remain outside along with 50 mm bend. The shear connectors are used to tie the additional reinforcement bars	Nos.	2709.00	561.00	15,19,749.00
17.00	WATERPROOFING				
17.01	Removing brick bat coba including stacking the spoils as directed with all leads, lifts etc, complete.	Cum	27.00	664.65	17,945.55
17.02	Lowering down the debris obtained from breaking and removing the cement plaster/ burnt brick masonry of the first floor by any means without causing dust nuisance and damage to structure, stacking the same as and where directed including cleaning the site complete	Cum	27.00	789.60	21,319.20
17.03	Providing and applying of MARISEAL 250 or equivalent approved make of Polyurethane coating in two coats for terrace waterproofing having more than 400 % elongation at break. The final curing time shall be of 7 days. The Water Vapor Permeability shall be more than 25 gr/m ² /day. The service temperature shall be of 30 to 90 Deg Cel and the adhesion to concrete properties shall be more than 1.5 N/mm ² . The coating shall be highly permanent elastic, cold applied and cold curing, one component polyurethane membrane. The coating shall have mechanical, chemical, thermal, UV and natural element resistance properties. The MARISEAL 710 Polyurethane Primer or equivalent approved make solvent based primer shall be used for quick drying. The MARISEAL FABRIC or equivalent approved make shall be used as a reinforcing fabric for liquid applied waterproofing membranes.	Sqm	176.00	1716.00	3,02,016.00
18.00	PLASTERING				
18.01	Removing the existing cement plaster of any thickness without causing dust nuisance and stacking the debris upto a distance of 50 metres or spreading in the compound and cleaning the site etc. complete.	Sqm	1787.00	54.60	97,570.20

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
18.02	Providing sand faced plaster externally in cement mortar using approved screened sand, in all positions including base coat of 15mm thick in cement mortar 1:4 using waterproofing compound at 1 Kilogram per cement bag curing the same for not less than 2 days and keeping the surface of the base coat rough to receive the sand faced treatment 6 to 8 mm thick in cement mortar 1:4 finishing the surface by taking out grains and curing for fourteen days scaffolding etc.complete.	Sqm	1017.00	701.02	7,12,933.36
18.03	Providing internal cement plaster 12mm thick in single coat in cement mortar 1:4 without neeru finish to concrete or brick surfaces, in all positions including scaffolding and curing etc. complete.	Sqm	770.00	305.57	2,35,288.23
19.00	TILING				
19.01	Removing mosaic, cement marble, granites non-slippery, tandur, kotah, shahabad stone or Indian Pattern stone, glazed tiles in flooring and dado including bedding brick bat coba etc., and delivering materials in Ward Office and carting away unserviceable materials.	Sqm	193.00	315.00	60,795.00
19.02	Providing and laying ceramic tiles of having size 30cm.x30cm. and confirming to corresponding I.S. for dado and skirting in required position with ready made adhesive mortar of approved quality on plaster of 1:2 cement mortar including joint filling with white/ colour cement slurry cleaning curing etc. complete.	Cum	193.00	1317.75	2,54,325.75
20.00	PAINTING				
20.01	Providing and applying priming coat on concrete/ masonry/ Asbestos Cement plastered surfaces including scaffolding if necessary, preparing the surface by thoroughly cleaning oil, grease, dirt and other foreign matter and sand papering as required etc.complete.	Sqm	697.00	274.05	1,91,012.85
20.02	Providing and applying two coats of flat oil paint of approved colour and shade to internal/ external plastered surfaces including scaffolding if necessary, cleaning and preparing the surface (excluding primer coat) etc. complete.	Sqm	697.00	106.05	73,916.85
20.03	Providing and applying white-wash in two coat on old/ new plastered or masonry surfaces and asbestos cement sheets including scaffolding and preparing the surface by brushing and brooming down etc. complete.	Sqm	5619.00	12.60	70,799.40
20.04	Providing and applying priming coat over new/old steel and other metal surfaces including preparing the surface by thoroughly cleaning oil, grease, dirt and other foreign matter and scoured with wire brushes, fine steel wool, scrappers and sand paper, scaffolding etc.complete.	Sqm	2717.00	38.85	1,05,555.45
20.05	Providing and applying two coats of flat oil paint of approved colour to the old structural steel work and iron work previously painted in building including scaffolding, if necessary, cleaning and preparing the surface (excluding primer coat) etc. complete.	Sqm	2717.00	89.25	2,42,492.25
21.00	ROOFING WORK				
21.01	Removing Existing Mangalore tiles / AC / GI / Galvalume Sheets/polycarbonate plain and corrugated sheets from roof / cladding / partitions etc., excluding supporting structure but including scaffolding, handling, transporting, sorting and stacking at site lead up to 150m and or disposing etc complete as directed.	Sqm	1117.00	127.00	1,41,859.00
21.02	Providing and applying of MARISEAL 250 or equivalent approved make of Polyurethane coating in two coats for terrace waterproofing having more than 400 % elongation at break. The final curing time shall be of 7 days. The Water Vapor Permeability shall be more than 25 gr/m2 /day. The service temperature shall be of 30 to 90 Deg Cel and the adhesion to concrete properties shall be more than 1.5 N/mm2. The coating shall be highly permanent elastic, cold applied and cold curing, one component polyurethane membrane. The coating shall have mechanical, chemical, thermal, UV and natural element resistance properties.	Sqm	1229.00	4200.00	51,61,800.00

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
	The MARISEAL 710 Polyurethane Primer or equivalent approved make solvent based primer shall be used for quick drying. The MARISEAL FABRIC or equivalent approved make shall be used as a reinforcing fabric for liquid applied waterproofing membranes.				
21.03	Providing & installing flashings in 0.5mm pre painted galvalume steel (PPGL) Approved Make - Kingspan Jindal or equivalent	kg	271.00	252.00	,68,292.00
22.00	FABRICATION				
22.01	Providing and fabricating structural steel work in rolled sections like joists, channels, angles, tees etc. as per detailed design and drawings or as directed including cutting, fabricating, hoisting, erecting, fixing in position making riveted/ bolted/ welded connections without connecting plates, braces etc. and including one coat of anticorrosive paint and over it two coats of oil painting of approved quality and shade etc. complete.	MT	9.00	106936.20	9,62,425.80
23.00	MISCELLANEOUS				
23.01	Removing cast iron or wrought iron or A.C. pipe and stacking them as directed with all leads, lifts etc. complete.	Rmt	96.00	23.10	2,217.60
23.02	Providing and fixing P.V.C. Rain water pipes of 160mm outer diameter and having wall thickness of 2.2 to 2.7 mm confirming to I.S.13592-1992 including proper rain water receiving recess with P.V.C. plug, bend, necessary fittings, such as, offsets, shoes, including fixing the pipe on wall using approved wooden cleats projecting 25mm to 40mm from face of wall a fixing with clips of approved quality and One Number, filing the joint using rubber gasket with solvent cement and properly resting the shoe of pipes on C.C. or masonry blocks, including necessary scaffolding and maintenance for 3 yrs for any leakages or dislocations of pipes. All the P.V.C. fittings and additional 2 piece socket clips shall be got approved from engineer in charge etc. complete.	Rmt	30.00	1555.05	46,651.50
23.03	Removal of plants/ ficus grown by pulling out root system embedded in masnory, cutting stem and application of high/ gur/ lime formulation as specified by the Architect or other patented chemical biocide treatment such as biocide 'Glycel' (iso proplamine salt of glyphosate) or other chemical as specified by the Engineer in charge etc. complete.	Nos.	40.00	239.40	9,576.00
23.04	Providing antitermite treatment to the sides of flooring of the existing building as per I.S.6313 (Part-III) by punching holes 6mm dia. drilled at a distance of 30cm. centre to centre and injecting one percent of chlorodane emulsion concentrate at the rate of 50 ml per hole and sealing by filling putty etc. complete covering 2 years guarantee on bond paper.	Nos.	470.00	27.30	12,831.00
23.05	Providing and fixing Jute Kantan (Tarat) screen to the scaffold-ing for external guniting as directed including removing the same after the work is over etc. complete.	Sqm	2075.00	71.40	1,48,155.00
23.06	Disposal of building rubbish / malba / similar unserviceable, dismantled or waste materials by mechanical means including loading, transporting, unloading to approved municipal dumping ground or as approved by Engineer-in-charge, beyond 50 m initial lead, for all loads including all lifts involved. For 25 Km Lead	Cum	75.00	616.35	1,06,945.40
			Work Portion-A2		1,73,15,389.96
F	ROYALTY				
1	Royalty Charges for Sand are to be paid to the contractor after producing receipt of royalty paid to the Govt. for the material used for this work.	Cum	104.55	237.37	24,817.74
2	Royalty Charges for Other Minerals are to be paid to the contractor after producing receipt of royalty paid to the Govt. for the material used for this work.	Cum	94.71	216.18	20,473.40
			Royalty Charges (F)		45,291.13
G	TESTING				
1	BASIC TEST OF CEMENT:- Standard Consistency, Fineness, Specific Gravity, Setting Time (Initial & Final), Compressive Strength, Soundness.	Test	2.00	3770.00	7,540.00

2	FINE AGGREGATES : Carrying out test of Fineness Modulus (Sieve Analysis), Silt & Clay Content	Test	2.00	1380.00	2,760.00
3	FINE AGGREGATES : Carrying out test of Fineness Chloride & Sulphate Content	Test	2.00	795.00	1,590.00
tem No.	Description	Unit	Qty.	Rate	Amount
4	FINE AGGREGATES : Carrying out test of Silt Factor.	Test	2.00	850.00	1,700.00
5	WATER: PH Value, Sulphate & Chloride Content.	Test	2.00	1115.00	2,230.00
6	STEEL ANTI CORROSIVE TEST: Chemical Resistance Test.(Set of 8 Bars).	Test	2.00	2390.00	4,780.00
7	STEEL ANTI CORROSIVE TEST: Salt Spray Test (4 Cycles) (Set of 2 Bars).	Test	2.00	1485.00	2,970.00
8	STEEL BAR TESTING: Upto 16 mm (Set of 3 Bars)	Test	2.00	1275.00	2,550.00
		Testing Charges			48,635.00
		Total - Rs.			1,74,09,316.09

III

PROPOSED INTERIOR WORK OF MAKEUP ROOMS AT STUDIO NO. 5					
1	Dismantling brick masonry in lime or cement mortar and stacking the materials as directed with all leads, lifts etc.	CMT	13.53	351.75	4,758.12
2	Removing cement tiles, or marble or polished shahabad floor or dado without bed concrete including stacking the materials as directed with all leads, lifts etc. complete	SMT	364.72	47.25	17,232.83
3	Removing brick bat coba including stacking the spoils as directed with all leads, lifts etc. complete.	CMT	8.71	664.65	5,786.44
4	Dismantling aluminium/ Gypsum partitions, doors, windows, fixed glazing and false ceiling including disposal of unserviceable surplus material and stacking of serviceable material within 50 meters lead as directed by Engineer-in-charge.	SMT	57.95	42.00	2,433.90
5	Removing doors and windows with frames and stacking the materials as directed with all leads, lifts etc. complete.	NOS	25.00	163.80	4,095.00
6	Removing ventilators and small windows with frame and stacking the materials with all leads, lifts etc. complete.	NOS	9.00	138.60	1,247.40
7	Removing urinal pans or wash hand basins with frame including disconnecting the sanitary and water supply connections, removing the same carefully and stacking the serviceable materials as and where directed including throwing the unserviceable materials outside etc complete	NOS	9.00	100.80	907.20
8	Removing W.C. pans including disconnecting the sanitary and water supply connections, removing and breaking flooring and bed concrete around pan removing the same carefully and stacking the serviceable materials as and where directed including throwing the unserviceable materials out side etc. carefully and throwing out the refusal outside etc complete	NOS	6.00	217.35	1,304.10
9	Providing second class Burnt Brick masonry with conventional/ I.S. type bricks in cement mortar 1:6 in superstructure including striking joints, raking out joints, watering and scaffolding etc. Complete	CMT	25.88	10,027.16	2,59,497.89
10	Removing the existing cement plaster of any thickness without causing dust nuisance and stacking the debris upto a distance of 50 metres or spreading in the compound and cleaning the site etc. complete.	SMT	738.62	54.60	40,328.54
11	Providing internal cement plaster 12mm thick in single coat in cement mortar 1:4 without neeru finish to concrete or brick surfaces, in all positions including scaffolding and curing etc. complete.	SMT	587.65	305.40	1,79,468.92
12	Providing and applying plaster / wall punning with plaster of paris (with plaster of paris material of Ambuja / Mor Chap or equivalent make) in 10 to 13 millimeter thickness to previously plastered surface / or on newly brick surface (Excluding rough cast plaster) in all position including preparing and Finishing the surface scaffolding etc complete	SMT	352.72	600.60	2,11,845.73
13	Providing and applying priming coat on concrete/ masonry/ Asbestos Cement plastered surfaces including scaffolding if necessary, preparing the surface by thoroughly cleaning oil, grease, dirt and other foreign matter and sand papering as required etc. complete.	SMT	647.90	37.80	24,490.77
14	Providing and applying plaster with plaster of paris in 6mm thickness to previously plaster surface in all position including preparing the surface scaffolding etc. complete.	SMT	647.90	151.20	97,963.08

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
15	Providing and applying Royale Luxury Emulsion of approved make on internal wall surface as detailed below Scrapping for surface with emery paper and wipe clean for area. wall primer with brush by adding mineral turpentine oil by 8 to 10 % or water by 15 to 20% allowing to dry for 6 to 8 hoursAfter applying acrylic wall putty with appropriate prpportion of water of allow to dry for period of 4 to 6 hours of activity. Scrapping with emery paper and wipe clean Applying paints Royale Luxury emulsion 1st coat with brush water content water 40 to 45% or 65 to 70% by role Applying paints Royale luxury emulsion 2nd coat with brush with water content 40 to 45% or 65 to 70 % by roller. (With prior approval of S.E.)	SMT	443.63	288.75	1,28,099.32
16	Providing and applying plastic emulsion paint of approved quality, colour and shade to new surface in three coats including scaffolding, preparing the surface. (excluding primer coat) etc. complete.	SMT	204.27	141.75	28,955.27
17	Providing and applying two coats of synthetic enamel paint of approved colour to new/old structural steel work and wood work in buildings, including scaffolding if necessary, cleaning and preparing the surface (excluding primer coat) etc. complete.	SMT	10.00	100.80	1,008.00
18	Providing and laying vitrified mirror / glossy finish tiles decorative type having size 590 mm to 605 mm x 590 mm to 605 mm of 8 to 10 mm thickness and confirming to IS. 15622-2006 (group Bla) of approved make, shade and pattern for flooring in required position laid on a bed of 1:4 cement mortar including neat cement float, filling joints, curing and clearing etc. complete. a) Flooring	SMT	166.81	1,253.84	2,09,154.30
19	Providing and laying vitrified mirror / glossy finish tiles having size 590 mm to 605 mm x 590 mm to 605 mm of 8 to 10 mm thickness and confirming to IS. 15622-2006 (group Bla) of approved make, shade and pattern for dado and skirting in required position fixed in 1:4 cement mortar including neat cement float, filling joints, curing and clearing etc. complete	SMT	166.44	1,332.59	2,21,789.62
20	Providing and laying vitrified matt fininsh tiles having size 590 mm to 605 mm x to 605 mm of 8 to 10 mm thickness and confirming IS. 15622-2006 (Group Bla) of approved make, shade and pattern for flooring in required position laid on a bed of 1:4 cement morar including neat cement float, filling joints, curing and cleaning etc. complete.	SMT	28.01	1,697.99	47,560.70
21	Providing and laying Antiskid Ceramic tiles of approved quality of size 30 cm x 30 cm and confirming to IS 15622-2006 (Group-B IIA) for antiski flooring in required position laid on a bed of 1:4 cement mortar including cement float, filling joint with cement slurry cleaning curing etc.	SMT	5.00	1,275.29	6,376.45
22	Providing and laying ceramic tiles having size 30 cm. x 60 cm. confirming to corresponding I.S. for dado and skirting in required position with readymade adhesive mortar of approved quality on plaster of 1:2 cement mortar including joint filling with white/ colour cement slurry cleaning curing etc. complete.	SMT	5.00	1,476.89	7,384.45
23	Providing and laying hand made tile of various size and approved designs for dado and skirting in required position with readymade adhesive mortar of approved quality on plaster of 1:2 cement mortar including joint filling with white/ colour cement slurry cleaning curing etc. complete.	SMT	5.00	9,890.00	49,450.00
24	Providing and laying machine cut machine Polished Kota stone flooring 25mm to 30mm thick and required width in plain/ diamond pattern on bed of 1:6 C. M. including cement float, filling joints with neat cement slurry, curing, polishing and cleaning etc. complete.	SMT	5.00	1,329.14	6,645.70

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

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Repair and Upgradation of Studio 1,2,5,7,16, Hospital Building

Item No.	Description	Unit	Qty.	Rate	Amount
25	Providing and laying telephone black / Amba White / Cadburybrown / Ruby red / Ocean Brown granite stone of 18 to 20 mm thick for door frame/ dado/ window boxing etc. On C.M. 1:6 including filling joints with polymer base filler nosing/moulding the sharp edges wherever necessary, curing, etc. complete.	SMT	39.48	4,623.29	1,82,527.49
26	Providing and fixing frame with / without ventilator of size as specified with Country cut teak wood for doors and windows including chamfering, rounding, rebating, iron holdfast of size 300mm x 40mm x 5mm with oil painting, etc. complete	CMT	0.42	2,10,052.50	88,673.82
27	Providing and applying melamine polish of required finish to the wood work by spray machine including knotting and preparing the even surface by scraping, applying French polish , scaffolding if required etc. complete. Note:The work to be executed on prior approval of Superintending Engineer will be necessary	SMT	12.64	870.45	11,005.97
28	Providing and fixing solid core flush door shutter in single leaf 32 mm thick decorative type of exterior grade as per detailed drawings approved face veneers 3 mm thick on both faces or as directed, all necessary beads, mouldings and lipping, wrought iron hold fasts, chromium plated fixtures and fastenings, with brass mortise lock, chromium plated handles on both sides, and finishing with French Polish etc. complete.	SMT	14.25	3,232.95	46,069.54
29	Providing and fixing fiber glass reinforced polyster door shutter 35 mm thick as per IS 14856 (2000) (Reaffirmed 2006) without ventilator including chromium plated fixtures and fastening with chromium plated handles on both sides, etc complete.	SMT	14.18	3,669.75	52,018.71
30	Providing and fixing in position (as per 1868 / 1982) Alluminium sliding window of three tracks with rectangular pipe 95 x 38.10 x 0.90 mm at weight 0.637 kg/Rmt. with window frame bottom track section 92 x 31.75 x 1.30 mm at weight 1.070 kg/Rmt.. Top and side track section 92 x 31.75 x 1.30 mm at weight 0.933 kg/Rmt. The shutter should be of bearing bottom 40 x 18 x 1.25 mm at weight 0.417 kg/Rmt. Inter locking section 40 x 18 x 1.10 mm at weight 0.469 kg/Rmt. and handle and top section 40 x 18 x 1.25 mm at weight 0.417 kg/Rmt. As per detailed drawings and as directed by Engineerincharge with all necessary Aluminium sections fixtures and fastenings such as roller bearing in nylon casting and self locking catch fitted in vertical section of shutter including 5 mm thick plain glass and aluminium mosquito net shutter with stainless steel jail with all required screws and nuts etc, complete. With colour Anodising with box	SMT	24.38	5,777.10	1,40,816.81
31	Providing and fixing in position aluminium partly openable and partly fixed window of any size as per detailed drawing and as directed by Engineerincharge with all necessary alluminium sections including necessary fixtures and fastening with 5 mm thick float glass etc. complete. b) With powder coating Note While arriving at the rate of item of item weight at 6.90 Kilogram/Square Metre is considered.	SMT	5.82	6,596.10	38,389.30
32	Providing and fixing in position b) Powder Coated aluminium fixed window fully glazed of any size as per detailed drawing and as directed by Engineerincharge with all necessary alluminium sections including necessary fixtures and fastening such as 5 mm thick clear float glass etc. complete.	SMT	8.13	6,001.80	48,764.63
33	Providing and fixing in position Gypsum board false ceiling with 12.5 mm thick Gypsum boards, screwed/ fixed to the under structure of suspended G.I. Grid constructed and suspended from the main ceiling consisting of ceiling sections of size 25 x 50 mm maximum center to center distance of 600 milimetre perimeter channel and	SMT	156.46	1,857.45	2,90,616.63

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
	intermediate channels at maximum center to center distance 1200 milimetre galvanized grid should be fixed to reinforced cement concrete slab. The gypsum board should be fixed to galvanized iron grid with necessary screws. The boards should be taped and filled from underside to give smooth, seamless ceiling. The rate should include necessary additional ceiling sections and intermediate channels. Additional intermediate channels should be fixed to strap hangers for additional support to prevent strapping at every 1200 milimetre item to be completed in all respect including necessary sleeves for ducts finishing of joints cut outs, painting including labour, material, lifts etc. all complete.				
34	Providing water proofing in W.C. and bath including brick bat coba in all position including providing and laying 12mm bed dingin cement mortar 1:3 on vergin concrete slab with waterproofing compound @1 Kilogram/ per bag of cement laying brick bat coba of required thickness in cm 1:5 with waterproofing compound 1Kilogram/ bag of cement grouting and finishing the to play er with 20mm thick brick bed dingin cement mortar 1:3 with waterproofing compound 1Kilogram/ per bag of cement and testing the treated portion for 48 hours by pond test and covering ten years' guarantee on requisite stamp paper including curing etc. complete.	CMT	8.40	7,930.50	66,639.99
35	Providing and applying water proofing treatment using acrylic polymer modified cement based water proofing coating with fibre glass mesh mixing at the rate of powder to liquid (2:1) by weight covering 9 to 10 sqm /kg with two coat using approved chemicals for masonry and concrete surface by brush covering 7 years guarantee on Stamp Papers etc. complete.	SMT	11.41	645.75	7,368.01
36	Providing and fabricating structural steel work in rolled sections like joists, channels, angles, tees etc. as per detailed design and drawings or as directed including cutting, fabricating, hoisting, erecting, fixing in position making riveted / bolted / welded connections without connecting plates, braces etc. and including one coat of anticorrosive paint and over it two coats of oil painting of approved quality and shade etc. complete.	MT	0.50	1,06,936.20	53,468.10
37	Providing and fixing on site VENEER FINISH WALL PANELING made by using approved quality seasoned T.W. framing of 38 x 25 mm at approximately 600 x 450 mm center to center or as per site conditions and covered by 12 mm thick marine ply generally conforming to I.S.303 / I.S.710-1980 finished with 3 mm thick group match veneer of approved quality with groove pattern including all necessary end mouldings, moulding pattern, and melamine polish. Antitermite treatment to plywood and woodwork etc. including all leads & lifts complete as per Architects detailed drg. & design and as instructed by The Engineer In Charge (Basic Veneer Rate Rs.75/-per sft)	SMT	75.62	5,346.00	4,04,266.66
38	Providing and fixing bevelled edge mirror of superior glass (of approved quality) 6mm glass with 12mm bevelled including edge Polish with PVC backing complete with fixed to wooden cleats with C.P. brass screws and washers complete.	SMT	63.75	2,187.00	1,39,421.25
39	Providing & Fixing Wooden shutters for Storage/Counter made of 18 mm thk plywood with all external surfaces finished with approved laminate of 1.0 mm thk & internal surfaces finished with white/offwhite laminate 0.8 mm thk. All wooden surfaces finished with melamine polish. etc complete As per drawing. Spec. As directed by Engineer-In-Charge	SMT	18.60	14,000.00	2,60,400.00

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NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
40	Providing & Fixing Dressing Table of Approved size .The Dressing table unit is made up 18 mm thk plywood with all external surfaces finished with approved laminate of 1.0 mm thk & internal surfaces finished with white/offwhite laminate 0.8 mm thk. All wooden surfaces finished with melamine polish. The unit has drawer and shelf. including Light Provision and complete as per specification.	SMT	26.01	23,600.00	6,13,836.00
41	Providing and applying pearl/ luster finish paint of approved colour and shade to the existing plaster surface including scaffolding, preparing the surface, applying the acrylic wall putti etc. complete.	SMT	1.00	226.80	226.80
42	Providing and fixing 20 mm thick superior veneer board pelmet box 150 to 200 mm wide to doors or window frames including 20mm dia. Aluminium curtain rod with sockets and finishing with french polishing (without top)etc. complete.	SMT	12.50	3,687.60	46,076.56
43	center table Providing and supplying canter table of required size with top made of 8mm thick clear toughened glass with bevelled edge from bottom edge of the glass border and vertical edge with polish etc. complete. Under structure made of 25mm thick Marine ply (IS 710 : 2010) with all exposed edge finished with 2mm thick machine pressed PVC edge banding in matching colour. (Rehau Make/or Equivalent) for better impact resistance. Nylon button stopper to hold glass top in position, Nylon bushers etc. complete.	NOS	6.00	6,426.00	38,556.00
44	CABIN SOFA Providing and supplying wooden sofa made with minimum 19mm. Marine ply (IS 710 : 2010) structure and internal frame work made of C.P. teak / Maranti wood seat made with minimum 19mm. Marine ply (IS 710 : 2010) and cushion made with foam of 150mm thick - 32 density on seat covered with 14mm thick - 18 density foam. Back made with wooden frame of minimum 50mm X40mm with 4 mm. ply and covered with foam of 100mm thick -32 densities covered with 14mm thick - 18 density foam for back extra support to the shape all foam of seat and back covered with tapestry approved by E-I-Charge. (Basic rate Rs. 450/- metre.) Handle made with wooden frame with box of 12mm. ply covered with 14mm thick -18 density foam with tapestry etc. complete. MCGM R3-CS-FUR-17-a / 1 seater	NOS	8.00	17,955.00	1,43,640.00
45	Sofa Set 3+1+1 Providing & fixing Sofa Set 3+1+1 Brown and Cream leather DIMENSION Length: 182.5 (cms) Breadth (cms): 100 (cms) Height (cms): 100 (cms) Weight (Kilograms): 66 (Kilogram) Seating Capacity: Five Seat	NOS	8.00	41,592.60	3,32,740.80
46	Providing and Fixing Rollar Blinds AMI Make or approved make & shade of 38mm round Aluminium channel with Blackout fabric & telting with chain (Ball) system with all necessary fixtures and fitting etc. complete. (Sample to be final by Engineer In-charge prior execution of work)	SMT	23.28	2,259.60	52,603.49
47	Providing & Arrangemnt of High Back, Synchronized Mechanism with Multiple Locking, Adjustable Armrest, Gaslift for Seat height adjustment, Standard 5-prong P/Nylon Base with Leatherite Upholstery	NOS	20.00	18,239.55	3,64,791.00
48	providing and fixing laser cut 3mm ss later of height 24 inches with stud weld and back side fixing in wall with chemical grouting all later powder coated all other necessary hardware fitting	INCH /LATER	24.00	201.00	4,824.00
49	Stainless steel nameplate : Providing and Fixing the 150mmx50mm Stainless steel nameplate by requirement of Department.	JOB	6.00	275.00	1,650.00
50	Refixing C.I. and UPVC vent , soil, waste and rain water pipe of any size including cleaning and making good masonry of walls cornices etc. before fixing including fitting such as W.I. clamps, accessories of approved make with scaffolding etc. complete.	RMT	100.00	182.00	18,200.00

Item No.	Description	Unit	Qty.	Rate	Amount
51	Providing LED BULB 5W or 7W , 230v, 50 Hz having colour temp up to 6500k complete erected with mains and required switchgears with continuous earth wire complete as per specification.	NOS	225.00	297.00	66,825.00
52	Supplying and erecting Recess mounted 10-15 W LED wall washers/Spot Light/updown Light, tilted outwards /swivels/flush to wall to offer best illumination on the wall with any colour with driver complete. (Including Compatible Driver)	NOS	35.00	2,565.00	89,775.00
53	Supplying and erecting LED square / circular 15W-18W automatic motion sensor light downlighter/panel concealed as per specification provided by the engineer in charge.complete	NOS	1.00	3,720.00	3,720.00
54	Supplying and erecting Recess mounted 30W LED wall washers/Spot Light/updown Light, tilted outwards /swivels/flush to wall to offer best illumination on the wall with any colour with driver complete. (Including Compatible Driver)	NOS	2.00	5,130.00	10,260.00
55	Supply installation testing and commissioning of 4MP, Full HD, 1/2.8 type CMOS image sensor, Vari Focal : 9.0 mm to 22 mm, H.265 / H.264 & MJPEG triple-stream encoding, Max. IR LEDs length 30 m , IP66 rated, 25/30fps@1080P (1920 ×1080), Support ICR for day time and night time operation, Zoom ratio :2.4x Optical (Motorized zoom/ Motorized focus), Bullet Camera.	NOS	4.00	33,412.00	1,33,648.00
INTERIOR TOTAL					53,09,603.30
56	Providing and fixing European type wall-hung white water closet of approved make with push valve concealed type with cover plate 32mm size of approved make including soil pipe, vent pipe up to outside face of wall ,100mm dia. G.I. plug bend inlet pipe all fittings, cutting and making good walls, floors etc. complete.	NOS	6.00	15,777.30	94,663.80
57	Providing and fixing 1st class white glazed earthenware Orissa Type W.C. Pan 580 mm dia including P or S trap cast iron soil and vent pipe upto the outside face of the wall (1:5:1 0) cement concrete bedding 15 mm thick, 10 liter P.V.C. flushing cistern with all necessary pipe connection etc. complete	NOS	1.00	7,757.40	7,757.40
58	Providing and fixing Oval Type Under Counter Wash Hand Basin of 420 x 590 x 195mm size with pillar cock, C.P.Angular stop cock, long thread of approved make continental including SS bottle trap of necessary pipe connection up to the outside face of the wall, having Telephonic Black / Colour Granite of 180 mm thick fixed on Black Kadappa Framework, etc. Complete as directed by Engineer in charge.	NOS	9.00	20,883.45	1,87,951.05
59	Providing and fixing C.P. BIB cock with wall flange of approved make including necessary sockets/ union nut etc. complete.	NOS	2.00	1,163.40	2,326.80
60	C.P.angular stop cock with wall flange jaquar make continental (Cat.No. CON- 059)	NOS	1.00	720.30	720.30
61	Providing and fixing C.P. a 2-Way BIB cock with wall flange of approved make including necessary sockets/ union nut etc. complete as directed by Engineer in charge.	NOS	6.00	2,482.20	14,893.20
62	Providing and fixing 15 mm diameter PVC Aqua kraft type of approved make super jet spray with flange 2 in 1 faucet 1.50 metre long including all accessories etc complete	NOS	6.00	808.50	4,851.00
63	Providing and fixing 450mm x 550mm size superior type Belgium mirror with 16mm dia. nickel plated towel rod etc. complete.	NOS	6.00	904.05	5,424.30
64	C.P.Toilet paper holder jaquar make continental (Cat. No. AQ 7751)	NOS	6.00	1,048.95	6,293.70
65	Supplying and erecting storage type water heater 15 litres capacity having standing loss <0.419 kWh / 24 hour / 45°C, high impact resistance engineering plastic body with anti corrosive high grade steel inner tank heating element having hard water & corrosion protection, with	NOS	6.00	8,991.00	53,946.00

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
	minimum 3 safety protections (i.e. thermostat & thermal cut-out, multi function valve) with total pressure 8 bar withstanding capacity duly tested and marking sr. no. and date of erection complete. specification no. AP-WH/STWH				
66	Providing and fixing diverter with overhead shower, shower arm, spout, hand shower with wall bracket having flow rate up to 12 liters/minutes of Jaquar/Cera/Hindware /Perryware or equivalent make including all necessary pipes, fittings etc. complete as directed by Engineer In Charge. (Make shall conform to manufacturer's Green product and shall got approved from the Engineer In Charge.)	NOS	6.00	15,609.30	93,655.80
	WATER SUPPLY				
67	Providing and fixing 75 mm dia stabiliser pipe/ P.V.C. soil vent/waste pipe and with necessary fixtures and fitting such as bends, tees, single junctions, slotted vent, clamps etc. complete	RMT	20.00	637.35	12,747.00
68	Providing and fixing on walls/ ceiling/ floor 15 mm dia. CPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	RMT	40.00	279.30	11,172.00
69	Providing and fixing on walls/ceiling/floor 20 mm dia. CPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete	RMT	20.00	325.50	6,510.00
70	Providing and fixing on walls/ ceiling/ floor 25 mm dia. CPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	RMT	30.00	393.75	11,812.50
71	Providing and fixing on walls/ ceiling/ floor 32 mm dia. CPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	RMT	20.00	452.55	9,051.00
72	Providing and fixing on walls /ceiling/ floor 40 mm dia. CPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	RMT	20.00	565.95	11,319.00
73	Providing and fixing on walls/ ceiling/ floor 50 mm dia. CPVC pipe with necessary fittings, remaking good the demolished portion etc. complete.	RMT	20.00	778.05	15,561.00
	FIRE				
74	Supplying & erecting Carbon Dioxide (CO2) fire extinguisher of 4.5 kg. capacity cartridge type conform to IS 2878 /15683 complete erected with necessary clamp made from 50 x 6 mm. M. S. flat with nut & bolts routed in wall complete.	Nos.	4.00	9,902.00	39,608.00
TOTAL					5,90,263.85
(A) TOTAL INTERIOR					53,09,603.30
(B) TOTAL PLUMBING					5,90,263.85
(C) TOTAL (A+B)					58,99,867.15

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Name of Work : Repair and Upgradation of Studio 7 at Goregaon Filmcity

ABSTRACT SHEET

Item No.	Description	Unit	Qty.	Rate	Amount
A1	Civil Work for upgradation of existing Structure				
1.00	DEMOLITION WORK				
1.01	Removing brick bat coba including stacking the spoils as directed with all leads, lifts etc. complete.	Cum	0.00	664.65	-
1.02	Removing doors and windows with frames and stacking the materials as directed with all leads, lifts etc. complete.	No.	0.00	163.80	-
1.03	Removing ventilators and small windows with frame and stacking the materials with all leads, lifts etc. complete.	No.	0.00	138.60	-
1.04	Removing cement tiles, or marble or polished shahabad floor or dado without bed concrete including stacking the materials as directed with all leads, lifts etc. complete	Sqm	0.00	47.25	-
1.05	Removing earthen, stonewate pipe and stacking them as directed with all leads, lifts etc. complete.	RMT	Quote Rate Only	23.10	-
1.06	Removing cast iron or wrought iron or A.C. pipe and stacking them as directed with all leads, lifts etc. complete.	RMT	Quote Rate Only	23.10	-
1.07	Dismantling the R.C.C. Work 1:2:4 and sorting out the materials such as steel etc. as directed and stacking them within the specified lead as directed etc. complete.	Cum	Quote Rate Only	1523.55	-
1.08	Removing urinal pans or wash hand basins with frame including disconnecting the sanitary and water supply connections, removing the same carefully and stacking the serviceable materials as and where directed including throwing the unserviceable materials outside etc complete	No	0.00	100.80	-
1.09	Removing W.C. pans including disconnecting the sanitary and water supply connections, removing and breaking flooring and bed con-crete around pan removing the same carefully and stacking the serviceable materials as adn where directed including throwing the unserviceable materiasls out side etc. carefully and throwing out the refusal outside etc. complete.	No	0.00	217.35	-
1.10	Removing chockes and leakages from down take G.I/CI/PVC pipe line on walls floor level by using zoola / scaffolding and rectify the same for functioning with all lifts etc. complete.	No	Quote Rate Only	328.65	-
1.11	Manually clearing the chockes from under ground drainage line including Inspection chambers with the help of required tools for propre functioning line chamber to chamber etc. complete.	No	Quote Rate Only	51.45	-
1.12	Manually clearing by removeing the chockes from Nahni Trap, Gully Trap, Wash basin unit, Sink and WC with the help of required tools for proper functioning the same etc. complete.	No	Quote Rate Only	195.30	-
1.13	Lowering down the debris obtained from breaking and removing the cement plaster / burnt brick masonry of the first floor by any means without causing dust nuisance and damage to structure, stacking the same as and where directed including cleaning the site complete.	Cum	Quote Rate Only	789.60	-
1.14	Dismantling aluminium/ Gypsum partitions, doors, windows, fixed glazing and false ceiling including disposal of unserviceable surplus material and stacking of serviceable material with in 50 meters lead asdirected by Engineer-in-charge.	Sqm	0.00	42.00	-
1.15	Dismantling & removing existing sanitary fixtures like bib cocks, shower head, accessories, water supply, sanitary, drainage pipes & fittings & carting away from the complex as per the rules and regulations of the Owner.	LS	0.00	5000.00	-
1.16	Removal of steel railing and refixing of railing to submersible bridges including cleaning and repainting etc complete	Rmt	Quote Rate Only	531.30	-

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
2.00	EARTH WORK				
2.01	Excavation for foundation in earth, soil of all types, sand, gravel and soft muRmt, including removing the excavated material up to a distance of 50 m. beyond the building area and stacking and spreading as directed, dewatering, preparing the bed for the foundation and necessary back filling, ramming, watering including shoring and strutting etc.(Lift upto 1.5m) complete. By Mechanical Means.	Cum	511.06	217.35	1,11,078.00
2.02	Excavation for foundation in earth, soil of all types, sand, gravel and soft muRmt, including removing the excavated material up to a distance of 50 m. beyond the building area and stacking and spreading as directed, dewatering, preparing the bed for the foundation and necessary back filling, ramming, watering including shoring and strutting etc.(Lift from 1.5 to 3m) complete. By Mechanical Means.	Cum	511.06	270.90	1,38,445.00
2.03	Excavation for foundation in earth, soil of all types, sand, gravel and soft muRmt, including removing the excavated material up to a distance of 50 m. beyond the building area and stacking and spreading as directed, dewatering, preparing the bed for the foundation and necessary back filling, ramming, watering including shoring and strutting etc.(Lift from 3 to 4.5m) complete.	Cum	112.43	325.08	36,549.00
2.04	Providing dry/trap/granite/quartzite/gneiss rubble stone soling 15 cm to 20 cm thick including handpacking and compacting etc.complete.	Cum	41.05	1817.49	74,602.00
3.00	CONCRETE WORK				
3.01	Providing and laying Cast in situ / Ready Mix cement concrete in M15 of trap / granite / quartzite / gneiss metal for steps including steel centering, formwork, laying / pumping, compacting, roughening them if special finish is to be provided, finishing uneven and honey combed surface and curing etc. complete. The Cement Mortar 1:3 plaster is considered for rendering uneven and honey combed surface, only. Newly laid concrete shall be covered by gunny bag, plastic, tarpaulin etc.(Wooden centering will not be allowed.), with fully automatic microprocess or based PLC with SCADA enabled reversible DRmt Typemixer / concrete Batch mix plant (Panmixer) etc. complete. With fine aggregate (Natural Sand / Crushed sand VSI Grade finely washed etc)	Cum	17.85	7417.28	1,32,372.00
3.02	Providing and laying Cast in situ/Ready Mix cement concrete M-25 of trap / granite/quartzite/ gneiss metal for R.C.C. work in foundations like raft, strip foundations, grillage and footings of R.C.C. columns and steel stanchions etc. including bailing out water, Steel centering, formwork ,cover blocks, laying/pumping, compaction and curing roughening the surface if special finish is to be provided (Excluding reinforcement and structural steel) etc. complete, with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)	Cum	95.90	8362.76	8,02,022.00
3.03	Providing and fixing in position TMT - FE - 500 bar reinforcement of various diameters for R.C.C. pile caps, footings, foundations, slabs, beams columns, canopies, staircase, newels, chajjas, lintels pardis, copings, fins, arches etc. as per detailed designs, drawings and schedules. including cutting, bending, hooking the bars, binding with wires or tack welding and supporting as required complete.	MT	93.38	94188.15	87,94,988.00
3.04	Providing and applying "high strength, non shrink free flow grout material" i. e. micro concrete (like shrink comp or equivalent) having compressive strength as 400 Kilogram/sq.cm. including finishing the surface and curing for 07 days. Etc complete. The usage of this non shrink concrete with zero slump is to allow to occupy every free space leaving no voids, thereby producing dense concrete with proper bonding with concrete (The quoted rates to be inclusive of all materials, labours, tools &	Cum	0.43	70350.00	30,391.00

CONTRACTOR

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DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
	tackles, transportation, taxes etc complete) to be applied for foundation and strengthening of pier etc and as per the direction of Site-In-Charge. (The product like Ultratech/Rendroc (RGL) of FOSROC or its equivalent)				
4.00	PLASTERING AND PAINTING WORK				
4.01	Providing internal cement plaster 12mm thick in single coat in cement mortar 1:3 without neeru finish to concrete or brick surfaces, in all position including scaffolding and curing etc. complete.	Sqm	Quote Rate Only	317.12	-
4.02	Providing waterproof plaster in W.C. and bath 12 mm thick for dado in cement mortar 1:3 with neat finishing, floating using waterproofing compound at the rate of 1 Kilogram. per bag of cement of approved make and manufacturer and curing etc. complete. (Excluding Tiles) (As directed by Engineer in Charge)	Sqm	Quote	406.35	-
4.03	Providing and applying two coats of synthetic enamel paint of approved colour to new /old structural steel work and wood work in buildings, including scaffolding if necessary, cleaning and preparing the surface (excluding primer coat) etc. complete.	Sqm	Quote Rate Only	100.80	-
4.04	Providing and applying Two coats of wall care Putty on plastered surface and Ceiling and Walls to prepare surface even and smooth of approved make, etc complete. As directed by Engineer in charge	Sqm	Quote Rate Only	94.50	-
4.05	Providing and applying two coats of textured synthetic paint of approved shade and quality and one coat of primer before applying textured paint including scaffolding if necessary preparing surface by thoroughly cleaning oil, grease, dirt and other materials as required, etc. complete.	Sqm	Quote Rate Only	171.15	-
4.06	Providing and applying two coats of exterior acrylic emulsion paint confirming to corresponding I.S. of approved manufacture and of approved colour to the plastered surfaces including cleaning, preparing the plaster surface, applying primer coat, scaffolding if necessary, and watering the surface for two days etc complete.	Sqm	Quote Rate Only	274.05	-
4.07	Providing and applying priming coat on concrete/ masonry/ Asbestos Cement plastered surfaces including scaffolding if necessary, preparing the surface by thoroughly cleaning oil, grease, dirt and other foreign matter and sand papering as required etc. complete.	Sqm	Quote Rate Only	37.80	-
4.08	Providing and applying plastic emulsion paint of approved quality, colour and shade to old and new surfaces in two coats including scaffolding, preparing the surface. etc. complete.	Sqm	0.00	84.00	-
4.09	Providing and applying two coats Apex Ultima Puranature Anti-Pollution Or equivalent approved brand, paint should decomposes organic substances and inorganic gases(NOx, VOC's, CO, SOx, formaldehydes, etc.) in presence of natural or artificial light. It contains Graphene and nanoparticles of titanium oxide.	Sqm	645.22	390.60	2,52,022.00
	and Absorbs CO2 (4.8 Kilogram/15 l). plaster crack should be filled by Acrylic base Crack seal/Textured Crack filler, Paint has to applied on one coat of Apex Ultima Puranature Anti-Pollution Primer or Equivalent. Warranty Should be given by the Manufacturer The work should be done by the Manufacturer Recommended applicator and he should be able to furnish stage wise onsite technical reports from the concerned company technologist.				
4.10	Providing and fixing 450mm x 550mm size superior type Belgium mirror with 16mm dia. nickel plated towel rod etc. complete.	No	Quote Rate Only	904.05	-

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NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
4.11	Providing and Laying hot applied thermoplastic road marking strip on Bituminous Surface of specified shade/ colour of 2.5 mm thick including 1.5 Refractive index reflectorizing glass beads @ 250gm/sqm .Thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC 35:2015. Initial Dry reflectivity RL shall be > 250 mcd/sqm/lux measured in the initial 7 days and sustained reflectivity RL of 100 mcd/sqm/ lux and Qd of 100 mcd/sqm/ lux measured at the end of 2 years by means of a Standard Reflectometer of Zehntner, Easylux, Delta make capable of measuring RL & QD both according to IRC 35:2015 clause 15.5. The finished surface to be level, uniform, and free from streaks and holes complete as per direction of Engineer-in-charge and in accordance with applicable specifications.(Refer MORTH Clause 803 for technical Specification and Performance for IRC 35:2015).	sqm	8.00	699.30	5,594.00
5.00	PAVING FLOORING AND DADO				
5.01	Providing and fixing machine cut machine polished 18 mm to 20 mm thick telephone black / Amba White / Cat bary brown / RBI red / Ocean Brown granite stone for treads	Sqm	Quote Rate Only	4398.82	-
Item No.	Description	Unit	Qty.	Rate	Amount
	and risers of steps and staircases of approved colour and shade with rounded moulding and three grooved line for the treads on bed of 1:4 Cement mortar including float filling joints with neat cement slurry curing polishing and cleaning etc. complete.				
5.02	Providing and laying vitrified mirror /glossy finish tiles having size 590 mm to 605 mm x 590 mm to 605 mm of 8 to 10 mm thickness and confirming to IS.15622 -2006 (group Bla) of approved make, shade and pattern for dado and skirting in required position fixed in 1:4 cement mortar including neat cement float, filling joints, curing and clearing etc. complete	Sqm	0.00	1332.82	-
5.03	Providing and laying vitrified matt fininsh tiles having size 590 mm to 605 mm x to 605 mm of 8 to 10 mm thickness and confirming IS. 15622-2006 (Group Bla) of approved make, shade and pattern for flooring in required position laid on a bed of 1:4 cement morar including neat cement float, filling joints, curing and cleaning etc. complete.	Sqm	0.00	1698.22	-
5.04	Providing and laying vitrified rustic matt stone finish tiles having size 590 mm to 605 mm x 590 mm to 605 mm of 8 to 10mm thickness and confirming to IS. 15622-2006 (Group Bla) of approved make, shade and pattern for flooring in required position laid on a bed of 1:4 cement mortar including neat cement float, filling joints, curing and cleaning etc. complete.	Sqm	Quote Rate Only	1875.67	-
5.05	Providing and laying vitrified rustic matt stone finish tiles having size 590 mm to 605 mm x 590 mm to 605 mm to 8 to 10mm thickness and confirming to IS. 15622-2006 (Group Bla) of approved make, shade and pattern for dado and skirting in required position fixed in 1:4 cement mortar including neat cement float, filling joints, curing and cleaning. etc. complete.	Sqm	0.00	1936.20	-
5.06	Providing and fixing green marble of 18 to 20 mm thick for door frame/ dado/ window boxing etc. On C.M. 1:6 including filling joints with polymer base filler nosing / moulding the sharp edges wherever necessary, curing, etc. complete.	Sqm	0.00	2485.35	-
5.07	Providing and fixing heavy duty inter locking concrete Grey paving blocks of 60 mm thickness of having a strength of 300 Kilogram/Sq.cm. of approved quality and shape on a bed of crushed sand of 25 to 30 mm thick including skirting joints and cleaning etc. complete.	Sqm	350.00	882.00	3,08,700.00
5.08	Providing and fixing heavy duty inter locking concrete Grey paving blocks of 80 mm thickness of having a strength of 300 Kilogram/Sq.cm. of approved quality and shape on a bed of crushed sand of 25 to 30 mm thick including skirting joints and cleaning etc. complete.	Sqm	Quote Rate Only	1083.60	-

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NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
5.09	Providing and fixing heavy duty inter locking concrete Coloured paving blocks of 60 mm thickness of having a strength of 300 Kilogram/Sq.cm. of approved quality and shape on a bed of crushed sand of 25 to 30 mm thick including skirting joints and cleaning etc. complete	Sqm	Quote Rate Only	964.95	-
5.10	Providing and fixing heavy duty inter locking concrete Coloured paving blocks of 80 mm thickness of having a strength of 300 Kilogram/Sq.cm. of approved quality and shape on a bed of crushed sand of 25 to 30 mm thick including skirting joints and cleaning etc. complete	Sqm	Quote Rate Only	1224.30	-
5.11	Providing and laying Vitrified mirror/glossy finish having decorative type of size 590 millimeter to 605 millimeter x 590 millimeter to 605 millimeter of 8 to 10 millimeter thickness (on a existing flooring) with bonding chemical and confirming to IS 15622-2006 (Group Bla) of approved make shade and pattern for flooring in required position laid on a bed of bonding chemical filling joints curing and cleaning etc . complete.	Sqm	Quote Rate Only	1296.07	-
5.12	Providing and laying Vitrified MATT finish having decorative type of size 600 millimeter x 600 millimeter of 8 to 10 millimeter thickness (on a existing flooring) with bonding chemical and confirming to IS 15622-2006 (Group Bla) of approved make shade and pattern for flooring in required position laid on a bed of bonding chemical filling joints curing and cleaning etc .complete.	Sqm	Quote Rate Only	1736.02	-
5.13	Providing and laying Vitrified RUSTIC MATT STONE finish having decorative type tiles of size 600 millimeter x 600 millimeter of 8 to 10 millimeter thickness (on a existing flooring) with bonding chemical and confirming to IS 15622-2006 (Group Bla) of approved make shade and pattern for flooring in required position laid on a bed of bonding chemical filling joints curing and cleaning etc. complete.	Sqm	Quote Rate Only	1867.27	-
5.14	Providing and laying Vitrified STONE EFFECT FINISH having decorative type tiles of size 590 millimeter to 605 millimeter x 590 millimeter to 605 millimeter of 8 to 10 millimeter thickness (on a existing flooring) with bonding chemical and confirming to IS 15622-2006 (Group Bla) of approved make shade and pattern for flooring in required position laid on a bed of bonding chemical filling joints curing and cleaning etc. complete.	Sqm	Quote Rate Only	1913.47	-
5.15	Providing and laying telephone black / Amba White / Cadburybrown / Ruby red / Ocean Brown granite stone of 18 to 20 mm thick for door frame/ dado/ window boxing etc. On C.M. 1:6 including filling joints with polymer base filler nosing/moulding the sharp edges wherever necessary, curing, etc. complete.	Sqm	Quote Rate Only	4623.52	-
5.16	Providing & fixing 20mm +/- 2mm thick both side mirror polished approved colour Granite Urinal partitions of 600 mm wide & 1550 mm high with round edges moulding and fixed in C.M. 1:2and filling joints in white cement mixed with pigment to match the colour of granite including curing, cleaning etc.complete. (Basic Rate Rs 3600/sqm)	No	Quote Rate Only	6522.00	-
5.17	Providing and fixing white vitreous china flat back half stall urinal of size 580x380x350mm with white PVC automatic flushing cistern,with fittings, standard size C.P. brass flush pipe, spreaders with unions and clamps (all in C.P. brass) with waste fitting as per IS :2556, C.I. trap with outlet grating and other couplings in C.P. brass including painting of fittings and cutting and making good the walls and floors wherever required :				
a	Range of two half stall urinals with 5 litre P.V.C. automatic flushing cistern.	Each	Quote Rate Only	16845.00	-
b	Range of three half stall urinals with 10 litre P.V.C. automatic flushing cistern.	Each	Quote Rate Only	21081.00	-

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DEPUTY ENGINEER (CIVIL)

	Description	Unit	Qty.	Rate	Amount
5.18	Providing & Fixing in position, Carpet more than 800+ gsm, made with 100% stain proof fibres of approved make along with 5mm underlay as per Architectural & Acoustical Design & Instructions & Complete in all aspects including all materials labour, finishing etc complete	Sqm	Quote Rate Only	1522.50	-
5.19	Providing and fixing 15 to 20mm thk. rough natural stone tiles as specified below of approved quality, pattern and colour for flush/projected skirting and risers including preparing the surface and levelling in the desired line, backing of 20 thk. cement mortar in proportion 1:3, square cut top edge or chamfered top edge in cement mortar 1:3, cement float, machine cutting, leveling, jointing, filling the joints with neat cement or pigment mixed with cement, polishing, finishing, curing etc complete as directed by Engineer In Charge.				
a	Steel gray Granite tiles/slab for height upto 150 mm	Rmt	Quote Rate Only	603.00	-
6.00	SANITARY FIXTURES				
6.01	Providing and fixing white vitreous china flat back or wall corner type lipped front urinal basin of 430x260x350mm and 340x410x265mm sizes respectively with automatic flushing cistern with standard flush pipe and C.P. brass spreaders with brass unions and G.I clamps complete, including painting of fittings and brackets, cutting and making good the walls and floors wherever required :				
6.01(a)	Range of two urinal basins with 5 litre white P.V.C. automatic flushing cistern	Each	QRO	9190.00	-
6.02	Providing and fixing water closet squatting pan (Indian type W.C. pan) with 100mm sand cast Iron P or S trap, 10 litre low level white P.V.C. flushing cistern, including flush pipe, with manually controlled device (handle lever) conforming to IS : 7231, with all fittings and fixtures complete including cutting and making good the walls and floors wherever required :				
6.02(a)	White Vitreous china Orissa pattern W.C. pan of size 580x440mm with integral type foot rests.	Each	0.00	7810.00	-
6.03	Providing and fixing white vitreous china pedestal type water closet (European type W.C. pan) with seat and lid, 10 litre low level white P.V.C. flushing cistern, including flush pipe, with manually controlled device (handle lever), conforming to IS : 7231, with all fittings and fixtures complete including cutting and making good the walls and floors wherever required :				
6.03(a)	W.C. pan with ISI marked white solid plastic seat and lid	Each	0.00	8007.00	-
6.04	Providing and fixing wash basin with C.I. brackets, 15 mm C.P. brass pillar taps, 32 mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever required :				
6.04(a)	White Vitreous China Wash basin size 630x450 mm with a pair of 15 mm C.P. brass pillar taps.	Each	0.00	3858.00	-
6.05	Providing and fixing 600x450 mm bevelled edge mirror of superior glass (of approved quality) complete with 6 mm thick hard board ground fixed to wooden cleats with C.P. brass screws and washers complete.	Each	Quote Rate Only	1919.00	-
6.06	Providing and fixing mirror of superior glass (of approved quality) and of required shape and size with plastic moulded frame of approved make and shade with 6 mm thick hard board backing				
a	Rectangular shape 1500x450 mm	Each	Quote Rate Only	2770.00	-
6.07	Providing and fixing wall mixer with overhead shower, shower arm, hand shower with wall bracket having flow rate up to 12 liters/minutes of Jaquar/Cera/Hindware /Perryware or equivalent make including all necessary pipes, fittings etc. complete as directed by Engineer In Charge. (Make shall conform to manufacturer's Green product and shall got approved from the Engineer In Charge.)	No	0.00	5485.00	-

Item No.	Description	Unit	Qty.	Rate	Amount
6.08	Providing and fixing C.P. Brass two way bib cock with flange of approved quality and make.	Each	0.00	1116.00	-
6.09	Providing and fixing 15 mm diameter PVC Aqua kraft type of approved make super jet spray with flange 2 in 1 faucet 1.50 metre long including all accessories etc complete	No	0.00	808.50	-
6.10	Providing and fixing C.P. Angular stop clock with wall flange Jaquar make or equivalent continental (CAT.NO. CON-059) including necessary sockets/union nut etc. complete. Spec No. As directed by Engineer in charge	No	0.00	2821.35	-
6.11	Providing and fixing C.P. pillar cock long neck with aerator jaquar or equivalent make continental (CAT.NO. CON -021) including necessary sockets/union nut etc. complete. Spec No. As directed by Engineer in charge.	No	0.00	1706.25	-
6.12	Providing and fixing JAQUAR MAKE, C.P. Towel rail 24" continental (Cat. No. ACN 1111N) including brackets, all fixtures, fittings and making good the wall wherever required etc. complete.	No	0.00	1329.00	-
6.13	Providing and fixing JAQUAR MAKE, HOTELIER series Model No. 1551 Toilet Paper Holder Recessed type (S.Steel) including cutting and making good the wall wherever required etc complete	No	0.00	1690.00	-
6.14	Providing and fixing ISI marked make CP brass liquid soap dispensers with CP brass bracket capacity 250 ml.	No	0.00	2748.00	-
6.15	Providing & Fixing 100mm diameter Nahani trap Jali in steel finish with necessary fixing required to make the item well functional.	No	0.00	437.00	-
7.00	PLUMBING				
7.01	Providing and fixing on walls/ ceiling/ floor 15 mm dia. CPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	Rmt	Quote Rate Only	279.30	-
7.02	Providing and fixing on walls/ceiling/floor 20 mm dia. CPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	Rmt	0.00	325.50	-
7.03	Providing and fixing on walls/ ceiling/ floor 25 mm dia. CPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	Rmt	Quote Rate Only	393.75	-
7.04	Providing and fixing on walls/ ceiling/ floor 32 mm dia. CPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	Rmt	0.00	452.55	-
7.05	Providing and fixing on walls /ceiling/ floor 40 mm dia. CPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	Rmt	Quote Rate Only	565.95	-
7.06	Providing and fixing on walls/ ceiling/ floor 50 mm dia. CPVC pipe with necessary fittings, remaking good the demolished portion etc. complete.	Rmt	Quote Rate Only	778.05	-
7.07	Providing and fixing on walls/ceiling/floor 20 mm dia. uPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	Rmt	0.00	303.45	-

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NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
7.08	Providing and fixing on walls/ ceiling/ floor 25 mm dia. uPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	Rmt	0.00	372.75	-
7.09	Providing and fixing on walls/ ceiling/ floor 32 mm dia. uPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	Rmt	0.00	432.60	-
7.10	Providing and fixing on walls /ceiling/ floor 40 mm dia. uPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	Rmt	0.00	546.00	-
7.11	Providing and fixing on walls/ ceiling/ floor 50 mm dia. uPVC pipe with necessary fittings, remaking good the demolished portion etc. complete.	Rmt	0.00	758.10	-
7.12	Providing and fixing in position uPVC/SWR (Soil/Waste/Rain) pipe of type-B 75 mm dia. in any position including all fittings and accessories, making joints / connections water tight with solvent cement, scaffolding if necessary and making good the damages if any (excluding excavation and refilling the trenches) etc. complete as specified and directed.(All fittings and accessories like clamps,etc. should be of same brand. No separate payment shall be made for fittings and accessories).	Rmt	0.00	271.00	-
7.13	Providing, fixing and testing heavy quality gun metal or brass ball valve with screwed ends 20kgm class on GI or copper pipe lines (Leader/ZOLOTO make) 20 mm (3/4") dia.	No	0.00	794.00	-
7.14	Providing, fixing and testing heavy quality gun metal or brass ball valve with screwed ends 20kgm class on GI or copper pipe lines (Leader/ZOLOTO make) 25 mm (1") dia.	No	0.00	1088.00	-
7.15	Providing, fixing and testing heavy quality gun metal or brass ball valve with screwed ends 20kgm class on GI or copper pipe lines (Leader/ZOLOTO make) 32 mm (1 1/4") dia.	No	0.00	1582.00	-
7.16	Providing, fixing and testing heavy quality gun metal or brass ball valve with screwed ends 20kgm class on GI or copper pipe lines (Leader/ZOLOTO make) 40 mm (1 1/2") dia.	No	Quote Rate Only	2443.00	-
7.17	Providing, fixing and testing heavy quality gun metal or brass ball valve with screwed ends 20kgm class on GI or copper pipe lines (Leader/ZOLOTO make) 50 mm (2") dia.	No	0.00	3227.00	-
7.18	Providing and fixing in position uPVC/SWR (Soil/Waste/Rain) pipe of type-B 75 mm dia. in any position including all fittings and accessories, making joints / connections water tight with solvent cement, scaffolding if necessary and making good the damages if any (excluding excavation and refilling the trenches) etc. complete as specified and directed.(All fittings and accessories like clamps,etc. should be of same brand. No separate payment shall be made for fittings and accessories).	Rmt	12.00	271.00	3,252.00
7.19	Providing and fixing in position uPVC/SWR (Soil/Waste/Rain) pipe of type-B 110 mm dia. in any position including all fittings and accessories, making joints / connections water tight with solvent cement, scaffolding if necessary and making good the damages if any (excluding excavation and refilling the trenches) etc. complete as specified and directed.(All fittings and accessories like clamps,etc. should be of same brand. No separate payment shall be made for fittings and accessories).	Rmt	12.00	414.00	4,968.00

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NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
7.20	Providing and fixing P.V.C. Rain water pipes of 160mm outer diameter and having wall thickness of 2.2 to 2.7 mm conforming to I.S. 13592-1992 including proper rainwater receiving recess with P.V.C. plug, bend, necessary fittings, such as, offsets, shoes, including fixing the pipe on wall using approved wooden cleats projecting 25mm to 40mm from face of wall a fixing with clips of approved quality and One Number ,filing the joint using rubber gasket with solvent cement and properly resting the shoe of pipes on C.C. or masonry blocks, including necessary scaffolding and maintenance for 3 yrs for any leakages or dislocations of pipes. All the P.V.C. fittings and additional 2 piece socket clips shall be got approved from engineer in charge etc. complete.	Rmt	36.00	1555.05	55,982.00
7.21	Supplying, laying, jointing & testing UPVC Drainage class pipes of FoamcoreAstral(SN 8) or equivalent make in solvent cement joint including leveling with cutting the pipe to required length, roughining of pipe at wall joint including socket as directed: 200 mm pipe	Rmt	70.00	1400.00	98,000.00
7.22	Booster Pump system (At Terrace Level) Supply, Installation, Testing And Commissioning Of Compact Self Contained Skid Mounted factory fitted & factory tested Hydropneumatic Booster Pump System As Follows: In-Line, Multisage, centrifugal pumps with SS-304 casing and impeller and SS-316 shaft, CI base & head TEFC motor (with mechanical seal) (Vendor to submit performance curves and technical catalog of the proposed model for review & information) The pump shall be selected for performance at best efficiency point. However, the pump selection shall be suitable for performance with set point @ + 20% of the rated head. Flow rate : As described below Head : As described below Mtr Purpose : Domestic/ Flush/ DM/ Drinking water supply External Pump mounted or wall mounted microprocessor PID controller and frequency inverter integrated in a single body or as separate components 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 protocol through RS485 port (Variable Frequency Drive). System should be capable to compensate for frictional losses at lower flows. All alarms should be displayed in the controller. System should be equipped with dry running protection. Quantity : 1 Nos. Complete (Skid mounted wall mounted / floor mounted) electrical control panel comprising of all accessories such as PLCs, pressure switches, pressure transducers, control wiring and any other necessary imports etc. (list to be provided by the vendor). Panel Should be with IP 54 Class of protection. Precharged diaphragm pressure vessel with food grade membrane, charging connection, connected to outlet header with necessary flanges, gaskets, isolating valves, nuts/bolts etc complete. Set of accessories such as pressure switches, pressure transducers, inter connecting power and control cabling etc. complete Including accessories like NRVs, Y Stainer, isolating valves, SS-304 (non-Magnetic) suction and delivery header, pressure gauge, MS base frame (Synthetic enamel painted over a coat of primer) etc. Booster Pump System (1 Set = 1W + 1S)				

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DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
	210 LPM @ 18 MTR (STUDIO 7)	No	0.00	460000.00	-
8.00	DOORS AND WINDOWS				
8.01	Solid Core Flush door Single leaf Providing and fixing factory made solid core flush door in single leaf 35 mm thick, decorative types, of exterior grade, as per detailed drawings, conforming to I.S.:2202 - 1962 (Revised) with approved face veneers on both faces with/without glazing and venetians in the positions shown on the drawings or as directed, all necessary beads, moulding and lipping, holdfasts, mat finish stainless steel fixtures fastenings , finishing with french-polish/ waxing complete. (without door frame).(Sample to be got approved from Ex.Engineer before use) Commercial Hard Wood shutter	Sqm	0.00	2887.50	-
8.02	Solid Core Flush door Double leaf Providing and fixing factory made solid core flush door shutters in double leaves 35mm thick,decorative type of exterior grade, as per detailed drawings, conforming to I.S.: 2202 – 1966 (Revised) including approved face veneers on both sides, without glazing and venetians including mat finish stainless steel fixtures and fastening, stoppers and finishing with french polishing etc. (Excluding door frame)(Sample to be got approved from Ex. Engineer before use) Commercial Hard Wood shutter	Sqm	Quote Rate Only	3255.00	-
8.03	Providing and fixing in position anodised (as per IS 1868/1982) Aluminium fixed staggered (Z Type) Ventilator with aluminium rectangular pipe 63 mm x 38.10 mm x 1.22 mm at weight 0.650 Kilogram/One Running Metre, Aluminium angle of size 15 mm x 15 mm x 1 mm,aluminium channel of 9 mm sizes, S.S.mosquito net of 304 Grade,4 mm thick float glass per detailed drawing and as directed by Engineer in charge etc.complete.	Sqm	0.00	4148.55	-
9.00	INTERIOR WORK				
9.01	Providing and fixing in position Gypsum board false ceiling with 12.5 mm thick Gypsum boards, screwed/fixd to the under structure of suspended G.I. Grid constructed and suspended from the main ceiling consisting of ceiling sections of size 25 x 50 mm maximum center to center distance of 600 milimetre perimeter channel and intermediate channels at maximum center to center distance 1200 milimetre galvanized grid should be fixed to reinforced cement concrete slab. The gypsum board should be fixed to galvanized iron grid with necessary screws. The boards should be taped and filled from underside to give smooth, seamless ceiling. The rate should include necessary additional ceiling sections and intermediate channels. Additional intermediate channels should be fixed to strap hangers for additional support to prevent strapping at every 1200 milimetre item to be completed in all respect including necessary sleeves for ducts finishing of joints cut outs, painting including labour, material, lifts etc. all complete.	Sqm	0.00	1857.45	-
9.02	Providing and fixing false ceiling with eco-friendly light weight calcium silicate tiles of Spintone/cosmos surface textured "Aerolite " make or equivalent of size 595 x 595mm having 15 mm thick densified microlook edge and 100% humidity resistance, incombustible as per BS 476 Part IV and thermal conductivity 0.043 w/m° KC and NRC 0.50 placed in true horizontal level suspended grid of size 600x600 mm made from hot dipped GI steel sections on Sillhoutte profile, rotary stitched double webbed white with 6mm reveal profile (white/black), where in main T runner of size 24 mm x 38mm and 0.33 mm thick @ 1200mm center to center and cross T of size 24mm X 28 mm and 0.33 mm thick, 1200 mm long spaced between main tee at 600 mm centre to centre and secondary cross T of Size 24mm X 28 mm x 0.33 thick of length 600 mm to be inter locked at middle of the first cross T in each	Sqm	0.00	2374.00	-

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NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
	panel to form grids of 600 mm x 600 mm and resting on periphery wall profile wall section 24 mm x 24mm x 0.40 thickness and laying false ceiling for services like diffusers grills including cutting, making opening for light fitting, fixtures, smoke detectors etc. wherever required, main tee runner to be suspended from ceiling using G.I. soffit cleats of size 25 x 35 x 1.6 mm of required length fixed to the ceiling with 12.5mm dia and 50 mm long dash fastener, 4 mm dia G.I adjustable rods with good quality G.I level adjustment clips of 85 X 30 X 0.8mm spaced at 1200 mm center to center along main tee all complete at all heights as per specifications, drawings and as per direction of Engineer - in - Charge.				
9.03	PROVIDING AND FIXING MODULAR ACOUSTICAL WOODEN WALL PANELLING: Of nominal width 100 / 150mm, having 80mm wide panel with 20mm reveal having a thickness of 15mm thickness and length 2400 mm. The panel shall be made of a Moisture resistant fibre board substrate having a minimum density of 595 Kg/m ³ with a laminated facing as per the approved shade (Portland Maple, Sea Beech, Siam Wood & Mystique Walnut) and a melamine balancing layer on the reverse side. The panel shall have 0.7mm PVC edge banding along the length side with a similar finish as that of the face. The back of the panel shall have a black acoustic felt to cover the reveal of 20mm to attain an NRC of 0.4 for 150mm. / 0.5 for 100mm. module (Average value of Absorption Co-efficient readings taken at 250 Hz, 500 Hz, 1000 Hz and 2000 Hz) as per ASTM C423. The panels shall provide a Humidity Resistance (RH) of 70% with camber limit less than 1mm/1000mm and bow less than 1mm/300mm. The back of the panels shall be profile-grooved to receive 3600mm special main beam carrier with integrated factory fitted clips for installation. SUSPENSION: The panels shall be upward mounted on 24 mm wide T - section flanges having rotary stitching along the length of the beam with a web height of 43mm. The Main Beam shall have integrated (factory fitted) locking clips installed at 100 / 150mm centre to centre distance. The deflection loading of the main beam tested as per ASTM C635 (Deflection limit less than L/360) shall be at least 21.4kg/m. The end details of the main beam shall be made of pre hardened steel and fixed to the ends with 3 point fixing. All main beam to main beam connection shall have a pull out strength of more than 100kg. The T Sections shall be made of hot dipped galvanized steel of 100 gsm as per IS 277 (2003) and pre-painted steel with baked polyester paint with OT bending capability. Installation should be carried out as per Manufacturer recommended procedure. The grid shall be installed with suspension system of Manufacturer make	Sqm	Quote Rate Only	11386.20	-
9.04	Removing existing soundproofing panels along with insulation materials to clean the surface of walls, stacking them at the designated place and dispose the same as directed	Sqm	3167.00	28.00	88,676.00

Item No.	Description	Unit	Qty.	Rate	Amount
9.05	Providing & Fixing False Ceiling comprising of following material including fixing in galvanized steel sections with white color coated cap comprised of main tee 34 mm x 24 mm (heavy duty as per ASTM C - 635 standard tested) with pre-punched cross tee slots (at every 100 mm c/c) to be placed at 1200 mm c/c, suspended with 4 mm GI (TATA MAKE) straightened wire at every 1.2 mtr, other end of the wire provided with GI J hook & nut. All the false ceiling panels around the perimeter of the false ceiling & around the RCC columns shall rest on the perimeter G.I. molding of size 19 mm x 19 mm which is fixed to the walls with help of rawal plug & GI screw at the same level as false ceiling. The cross tee of 1200 mm length (26 mm x 24 mm wide Heavy duty) shall be locked in main tee at every 600 mm c/c. to form grid of 600 x 1200 mm. Further 600 mm long tee need to be locked in to 1200 mm tee to make the final grid of 600 mm X 600 mm, including making provision for cutouts and / or trap door for electrical and mechanical systems, etc complete as directed by Engineer In charge. With Armstrong or equivalent Orcal Lay in metal ceiling System consisting of 600x600mm Lay in tiles of pre coated galvanised steel in 0.5/0.4 mm thickness in white colour with standard perforation of 2.5mm dia & open area of 16%. The back of the tile should have black acoustical fleece with NRC of 0.70 & CAC 36 with life time warrantee against sag in module size 595 mm X 595 mm at required height above FFL	Sqm	3167.00	1924.00	60,93,308.00
10.00	REBARING AND ANCHORING BOLTS				
10.01	Providing and fixing the Chemical Anchor Fasteners as specified below of Hilti Make or equivalent confirming to IS 1367 (Part 3) at required locations and level including drilling the hole, cleaning with blow pump and anchoring the bolt with chemical as per manufacturers specifications etc. complete as directed by Engineer In Charge.				
10.01(a)	M12 x 110 foil capsule (HVU) & M12 x 160 Rod	Nos	806.00	327.00	2,63,562.00
10.01(b)	M16 x 125 foil capsule (HVU) & M16 x 190 Rod	Nos	269.00	433.00	1,16,477.00
10.01(c)	M20 x 170 foil capsule (HVU) & M20 x 240 Rod	Nos	269.00	579.00	1,55,751.00
11.00	ELEVATION TREATMENT				
11.01	Designing, providing & Fixing (at all levels) in position factory made precast Glass fiber reinforced polymer (GFRP) and structural reinforcing the same as required as per approved manufacture's specification and as per approved drawings. The thickness of GFRP panel should not be less than 5 mm with minimum 5 mm thick GRP pads acting as inbuilt stiffeners, Fire resistant Resin of GP grade shall be used of approved make. Colour and texture should be approved by Engineer in charge. Fixing of Including making frame over the Primary main structure by using suitable MS sections. GFRP panel on primary structure shall be done by dry cladding method with the help of SS screw fixtures, MS angle cleats, fissures plug and Dowel pin etc. in proper alignment, line and level as per the approved drawing, Finishing with GFRP powder filling the joints with paintable silicon sealant neatly between GFRP panel and primary structure to provide one piece look including moulding and cornice at junction of column and beams as per approved drawing, including necessary MS fabrication work to support GFRP structure, necessary scaffolding at all levels and staging etc. Including painting with one coat of primer and minimum two coats of paint in Duco finished with one protective coat of lacker, complete as per manufactures specification. The rate shall include all necessary scaffolding, anchoring/bolting and necessary civil/ fabrication work as per Standard specifications as per approved design and as directed by Engineer-in-charge. GFRP decorative emblem with details shall be as per drawing and carvings as shown in 3 dimension up to a thickness of 150 mm with scroll designs, floral designs,	Sqm	2245.10	11000.00	2,46,96,062.00

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
	dentals, flutings etc., Item to include checking all surfaces for proper line and level etc. complete. Item includes preparing up to 2 samples for the Architects approval. Item to include making of the clay model and mould for the decorative cornice and supply of the decorative cornice as per approved sample executed in fiber glass material.				
12.00	MISCELLANIOUS WORK				
12.01	Providing water proof bedding for flooring of Bath and WC 25 mm thick in C.M. 1:3 including using approved water proofing compound in specified proportion as per manufacturers specifications for per bag of cement including leveling, curing and covering 10 years guarantee on court fee stamp paper of Rs.500/- including ponding test etc.complete. As directed by Engineer in charge.	Sqm	Quote Rate Only	451.50	-
12.02	Providing, fabricating & fixing in position S.S. 304 grade pipe railing for staircase consisting of 18 gauge 50 mm dia. S.S.pipe as top rail,18 gauge 40 mm dia S.S. pipe as verticals, 18 gauge 25 mm dia as secondary rails, including fixing the verticals to the staircase pardi by means of base plate with socket & anchor fasteners,grinding the welded portion smooth,buffing, protecting the railing members by means of wrappers during construction etc. complete as directed by the Engineer in charge	Rmt	Quote Rate Only	2892.00	-
12.03	Providing and fabricating structural steel work in rolled sections like joists, channels, angles, tees etc. as per detailed design and drawings or as directed including cutting, fabricating, hoisting, erecting, fixing in position making riveted / bolted /welded connections without connecting plates, braces etc. and including one coat of anticorrosive paint and over it two coats of oil painting of approved quality and shade etc. complete.	MT	35.96	106936.20	38,45,534.00
12.04	Providing & Fixing 15 mm thick solid white acrylic laser cut out Logo etc complete. (as per client / Architectural approval)	Sqm	Quote Rate Only	27.00	-
12.05	Directional signage Design, supply, fabrication and fixing acrylic multilingual Braille (raised dots) directional signboards of size 6" x 9" designed as per accessibility standards and having 4mm thick acrylic base plate with Upper Case San Serif words made of white acrylic non glare cut out letters of height 15mm raised not less than 0.8mm above base plate and the equivalent word written in Hindi with Devnagri non glare acrylic letters of height 15mm raised not less than 0.8mm above base plate and having a non glare acrylic cut arrow pointing in the required direction. Each signboard to be fixed as per manufacturers specifications on the wall at the approved location and at a height of 1200mm from FFL and as per the directions by the engineer in charge.	No.	2.00	1714.65	3,429.00
12.06	Disposal of building rubbish / malba / similar unserviceable, dismantled or waste materials by mechanical means including loading, transporting, unloading to approved municipal dumping ground or as approved by Engineer-in-charge, beyond 50 m initial lead, for all loads including all lifts involved. For 25 Km Lead	Cum	31.67	616.35	19,519.76
13.00	HORTICULTURE WORK				
13.01	Planting Shrubbery on Soft/Hard surface: Filling Red Hill Earth & Cow Dung Manure in the excavated area mixing in 2:1 proportion, watering, weeding after every watering before planting the shrub, leveling, providing and planting well grown, healthy, bushy shrubs including transport and unloading as per specified variety and sizes, planting at desired location and specified distances, maintaining for 1 month after completion of plantation and replacement of casualties till 1 month.				

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
13.01(a)	Golden Duranta Bag size (10" x 10") Height Of Plant (30 cm to 45 cm)	No	30.00	36.75	1,103.00
13.01(b)	Fox tail palm Bag size (10" x 12") Height Of Plant (3 to 4 ft..)	No	10.00	220.50	2,205.00
13.02	POTTED PLANTS: Providing and displaying a combination of seasonal flower plants and indoor plants (minimum ht. 30 cm) developed fresh and healthy leaves in plastic pot to the satisfaction of client/ Architect. Scope includes adding good suitable plants with soil, new pots, garden cleaning, pots neatly placed in position, carrying of waste mulch, insert new garden soil with compost mixed, addition of cocopeat to hold moisture, all general garden care service. The period of the contract shall be six months. Plants will be property of owner after contract period. Activities included in the scope of work shall include strimming, laying, sweeping, watering, weeding, applying fertilizers, pesticides, planting trees/plants, cleaning and waste disposal. The required consumables for the service for the contract period 6 months shall include fertilizers, pesticides, seeds, good earth, plants/trees- flower, foliage, herb, shrub, bamboo etc., machinery, pots/container – plastic pots 12 inch dia. size. The service provider will quote cost inclusive of scope and selected consumables. List of approved plants and specification of plants is enclosed as under.				
Item No.	Description	Unit	Qty.	Rate	Amount
13.02 (a)	Bird of Paradise Potted 3-4ft height	No	Quote Rate Only	338.00	-
13.02 (b)	Areca Palm Potted 3-4ft height	No	Quote Rate Only	338.00	-
13.02 (c)	Bougainvillea Potted 3-4ft height	No	30.00	238.00	7,140.00
13.02 (d)	Coleus potted 3-4ft height	No	Quote Rate Only	188.00	-
13.02 (e)	Catharanthus– Pink and white Flower 3-4ft height	No	Quote Rate Only	173.00	-
14.00	FURNITURE				
14.01	Providing and supplying center pivot, revolving, Mid back chair Depth-45cm, width-50cm, height- 105cm to 115cm & seat height- 45cm to 55cm. (+/- 2cm) with five legged metal / moulded nylon base with push back arrangement. Chairs shall have high density moulded, 360 revolving on suitable base, gas lift , heavy duty twin wheel castors to take min 80 kg/castor with two - pneumatic height adjustment one piece moulded type polypropylene armrest etc. complete. The chair shall be provided with approved tapestry upto Rs 300/m with necessary beading wherever required. All metal work shall be Epoxy Polyester Powder Coated and as directed by Architect in charge. The over all appearance of the product shall be as per photograph. All metal work shall be Epoxy Polyester Powder Coated and as directed by Architect in charge.	No.	0.00	12500.00	-
14.02	Supply, Installation, Testing & Commissioning of Adjustable Slotted angle racks for Material storage in dressing rooms , design shall be strictly as per the drawings, made from 20 gauge plates and 14 gauge angles. Rate shall include all necessary accessories, hardware components, transportation, installation, structural components, making good the scratches made during installation etc. as directed by the Engineer In charge. RACK DIMENSIONS - 1200 MM (length) X 400 MM (width) X 2100 MM (height) It will be divided into 4 (four) compartments / loading levels. Each compartment shall have load bearing capacity of each rack 100 Kg	No.	Quote Rate Only	3500.00	-

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
14.03	Providing and fixing mirror of superior glass (of approved quality) and of required shape and size with plastic moulded frame of approved make and shade with 6 mm thick hard board backing : (Rectangular shape 1500x600 mm)	No.	Quote Rate Only	3026.67	-
14.04	Providing table top of required size fixed at a standard table top height of up to 750mm min. (including table top thickness) to Modular partition. Table top shall be made of 25mm thick Marine ply (IS 710 : 2010) , FIRE RETARDENT laminate on all sides / surfaces. All edges of the work surface shall be provided with machine pressed PVC edge banding of 2mm thickness etc. complete. Table top to be principally mounted from the partition frame with suitable MS powder coated brackets which should be integrated into the partition frame etc. complete. (1200 X 600)	No.	Quote Rate Only	3744.00	-
14.05	Single Bed @ 2025LX 1000DX 650H Providing and fixing Single Bed of Size 2025Lx1000Dx650H with mattress and pillow. Understructure: - The legs are made of Square tube of size 25 x 25mm made out of MS with a thickness of 1.2 mm. The legs should have corner brackets welded to it at two levels. The corner brackets are made of 2mm thick CRCA having a L shaped structure to join the side panels and headboard to the leg. Three nos. of Horizontal stiffeners are provided at equal intervals. The stiffeners are made of Square tube of size 25 x 25mm made out of MS with a thickness of 1.2mm. The middle Horizontal Stiffener has a leg attached to it to transfer the load to the ground and add to the strength and stability of the complete structure. This leg is also made of Square tube of size 25 x 25mm made out of MS with a thickness of 1.2mm. All Metal components to undergo 7 tank treatment process and should be powder coated to the thickness of minimum 50 Microns DFT.Side Panel: - The side panels are made up of 18mm thick Prelam Particle Board with both side decorative laminate. All exposed edges are sealed with 2mm thick PVC edge Banding. The overall width of the side panel is 150mm. The side panels have 18mm thick prelam particle board Baton running for required length to add rigidity to the structure. Head Board :- The head board is made up of 18mm thick Prelam Particle Board with both side decorative laminate. All exposed edges are sealed with 2mm thick PVC edge Banding. The head board size to be considered as 1000 x 650mm. Foot Board :- The foot board is made up of 18mm thick Prelam Particle Board with both side decorative laminate. All exposed edges are sealed with 2mm thick PVC edge Banding. The head board size to be considered as 1000 x 450mm. Bed Base: - The Bed Base is made up of 12mm thick Prelam Particle Board with both side White laminate.	No.	0.00	20335.35	-
14.06	Providing & Fixing Dressing Table of size 600LX 900DX 750H.The Dressing table unit is made up of 18mm thick Prelam Particle Board with both side decorative laminate. All exposed edges are sealed with 2mm thick PVC edge Banding. The unit has one drawer and one shelf. The dressing table has a mirror of 4mm thick pasted on 18mm thick prelm particle board attached to the base unit. The mirror size considered is 900 x600 htx 4(t). The mirror has been pasted using high quality 3M sticker Mirrorto have fframe metal /prelaminated board.	No.	0.00	20497.05	-

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
14.07	Providing and supplying Modular CUPBOARD made up of required size. Top made of 25mm Marine ply (IS 710 : 2010), having post formed decorative laminate of 0.8mm on top and FIRE RETARDENT laminate on all sides / surfaces etc. complete. Sides, Sides in 25mm thk Marine ply (IS 710: 2010). Adjustable shelf made in 25mm thk Marine ply (IS 710 : 2010) placed on standard shelf pins etc. complete. Storage Back made of 9mm thick Marine ply (IS 710: 2010) etc. Sides, Shutters, Bottom, adjustable shelf, finished 2mm thick machine pressed PVC Edge banding of required size etc. Hardware set to include 110 degree opening self- closing box hinges, Counter Sunk screw, S.S.Brush Finished, Handles L' Clips Selves support etc. complete. Multipurpose lock, Levelling Bolt with inserts etc. complete. Aluminium furniture feet – Round tube, diameter 40 mm with 100 mm height with suitable finish to match handles" Shape SS Brush finished handles as indicated in the drawing, suitable locking provision etc. complete	No.	0.00	16065.00	-
14.08	Providing and supplying corner table of required size with top made of 8mm thick bevelled glass and under structure made of 18mm thick Marine ply (IS 710 : 2010) with all exposed edge are finished with 2mm thick machine pressed PVC edge banding in matching colour. (Rehau Make/or Equivalent) for better impact resistance etc. complete. Nylon button stopper to hold glass top in position, Nylon bushers etc. complete.	No.	0.00	4806.00	-
		Total - Rs.			4,61,41,731.76
		Say - Rs.			4,61,41,732.00
A2	Repair Work for existing Structure				
15.00	STRUCTURAL REPAIR				
15.01	Repairing of honey combed or spalling area by chipping out the damaged spalled or honey combed portion of concrete upto rusted rebars, cleaning of all rust, scale and loose materials, scaffolding, compressed air machinery etc. complete.(item includes use of air compressor, chipping machine and scaffolding for height 8 to 10 meter)	Sqm	533.00	833.70	4,44,362.10
15.02	Removing corrosion of steel reinforcement by mechanical means like wire brushing, chipping to remove loose rust and then applying rust removal solution by using brush application, leaving the surface for at least 15 to 30 minutes, then removing loose materials by scrubbing or with brush. After detachment of loose scales reddish rusted surface is still left exposed, this has to be retreated or as per approved manufacturers specifications. (Note:- Consider surface area of concrete for payment)	Sqm	533.00	46.00	24,518.00
15.03	Anticorrosive treatment to expose reinforcement in two coats with time interval of minimum 4 hours between each coat. The application shall be done by brush.	Sqm	533.00	595.35	3,17,321.55
15.04	Providing and fixing in position TMT-FE-500 bar reinforcement of various diameters for R.C.C. pile caps, footings, foundations, slabs, beams columns, canopies, staircase, newels, chajjas, lintels pardis, copings, fins, arches etc. as per detailed designs, drawings and schedules.including cutting, bending, hooking the bars, binding with wires or tack welding and supporting as required complete.	MT	15.00	94188.15	14,12,822.25

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
15.05	Repairing to the existing RCC structural members (vertical or horizontal) using ready mix Polymer Modified Mortar (Fibre reinforced structural grade repair mortar) of approved brand where the thickness of repair is upto 15 mm. It can be used for carrying out extensive repairs to beams, columns, slab, and other structural elements, repairing of structural members subjected to repetitive loading for strengthening. Procedure for carrying out repair Polymer Modified Mortar - Surface preparation- (separate payment shall be made) All loose traces of concrete or mortar, dust, grease oil, etc. must be removed. Damaged or contaminated concrete shall be removed to obtain a keyed aggregate exposed surface. Non-impact/ vibrating cleaning methods, e.g. grit or high pressure water blasting are recommended. Clean all exposed reinforcement to a minimum grade of Sa 2 according to ISO 8501-1 / ISO 2944-4. Ensure all visible portions of the reinforcing bar is clean. Where reinforcing bars are corroded, cut back the concrete around the reinforcing bars, Grit blast to remove corrosion products from around reinforcing bars and coat with approved epoxy coating for corrosion protection or any other protective coating as recommended by the Structural Engineer to protect from corrosion. Replace the affected part of rebar if the diameter after grit blasting is found reduced by more than 20% of the original diameter on the advice of the structural engineer responsible for the works. Bond Coat- (separate payment shall be made only for bond coat used for old surface to new surface) Providing & applying One coat of structural grade epoxy bond coat by brush conforming to ASTM-C-882-87 to the prepared concrete surface to be repaired / strengthened and repairing with PMM shall be done when the surface is tacky. Mixing - Only full bags are mixed. Damaged or opened bags should not be used. Mix the ready-mix Polymer Modified Mortar in a forced action pan mixer, or with a helical paddle attached to a low speed (300-600rpm) mixer for 3 minutes until a lump free, thixotropic consistency is achieved. Only use clean water. Mixing water needed: 3.75 to 4.25 litres per 25kg bag or as recommended by the Manufacturer of Polymer Modified Mortar. Allow the mortar to rest for 2 - 3 minutes and then remix briefly before pouring into formwork. If temperature more than 40°C then use chilled water for mixing. Mortar application- The minimum temperatures must be maintained during application and for at least 24 hours thereafter for optimum curing of the product. The prepared substrate should be presoaked, preferably for 24 hours, but at least 2 hours before applying Polymer Modified Mortar. The surface must be saturated surface dry, but without standing water. Polymer Modified Mortar can be spray- or hand-applied. Apply mixed product directly to the prepared damp substrate, or wet on wet onto the primed surface. Spraying the material with the necessary pressure will ensure good adhesion of the material. A thin scrape coat or contact layer before building up to the required thickness, wet on wet, will improve adhesion especially in case of hand application. Apply to the desired layer thickness upto 15 mm and level using a screeding bar, trowel or wooden board. Smoothing with a trowel or finishing by float or sponge can be done as soon as the mortar has begun to stiffen. Protective coatings Subsequent coatings of any anticarbonation barriers or silane impregnations should be applied if recommended by the Structural Engineer.	Sqm	83.00	3063.00	2,54,229.00

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
	Plaster- (No separate payment shall be made) The repaired surface shall be matched to the surrounding surface by providing required thickness of plaster internal or external plaster. Curing Minimum 7 days curing shall be done to the newly repaired area using any suitable method. Required Compressive strength (ASTM C109 7cm cube) Ready Mix Polymer Modified Mortar used on site shall be sent for testing of compressive strength and minimum strength required to be achieved is as follows – 1 Day-15 MPa, 3 Day-25 MPa, 7 Day-35 MPa, 28 Day-45 MPa.				
15.06	Repairing to the existing RCC structural members (vertical or horizontal) using ready mix Polymer Modified Mortar (Fibre reinforced structural grade repair mortar) of approved brand where the thickness of repair is upto 30 mm in two layers. It can be used for carrying out extensive repairs to beams, columns, slab, and other structural elements, repairing of structural members subjected to repetitive loading for strengthening. Procedure for carrying out repair Polymer Modified Mortar – Surface preparation- (separate payment shall be made) All loose traces of concrete or mortar, dust, grease oil, etc. must be removed. Damaged or contaminated concrete shall be removed to obtain a keyed aggregate exposed surface. Non-impact/ vibrating cleaning methods, e.g. grit or high pressure water blasting are recommended. Clean all exposed reinforcement to a minimum grade of Sa 2 according to ISO 8501-1 / ISO 2944-4. Ensure all visible portions of the reinforcing bar is clean. Where reinforcing bars are corroded, cut back the concrete around the reinforcing bars, Grit blast to remove corrosion products from around reinforcing bars and coat with approved epoxy coating for corrosion protection or any other protective coating as recommended by the Structural Engineer to protect from corrosion. Replace the affected part of rebar if the diameter after grit blasting is found reduced by more than 20% of the original diameter on the advice of the structural engineer responsible for the works. Bond Coat- (separate payment shall be made only for bond coat used for old surface to new surface) Providing & applying One coat of structural grade epoxy bond coat by brush conforming to ASTM-C-882-87 to the prepared concrete surface to be repaired / strengthened and repairing with PMM shall be done when the surface is tacky. Mixing - Only full bags are mixed. Damaged or opened bags should not be used. Mix the ready-mix Polymer Modified Mortar in a forced action pan mixer, or with a helical paddle attached to a low speed (300-600rpm) mixer for 3 minutes until a lump free, thixotropic consistency is achieved. Only use clean water. Mixing water needed: 3.75 to 4.25 litres per 25kg bag or as recommended by the Manufacturer of Polymer Modified Mortar. Allow the mortar to rest for 2 - 3 minutes and then remix briefly before pouring into formwork. If temperature more than 40°C then use chilled water for mixing. Mortar application- The minimum temperatures must be maintained during application and for at least 24 hours thereafter for optimum curing of the product. The prepared substrate should be presoaked, preferably for 24 hours, but at least 2 hours before applying Polymer Modified Mortar. The surface must be saturated surface dry, but without standing water. Polymer Modified Mortar can be spray- or hand-applied.	Sqm	215.00	5866.00	12,61,190.00

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
	Apply mixed product directly to the prepared damp substrate, or wet on wet onto the primed surface. Spraying the material with the necessary pressure will ensure good adhesion of the material. A thin scrape coat or contact layer before building up to the required thickness, wet on wet, will improve adhesion especially in case of hand application. Apply to the desired layer thickness upto 15 mm and level using a screeding bar, trowel or wooden board. Smoothing with a trowel or finishing by float or sponge can be done as soon as the mortar has begun to stiffen. Protective coatings Subsequent coatings of any anticarbonation barriers or silane impregnations should be applied if recommended by the Structural Engineer. Plaster- (No separate payment shall be made) The repaired surface shall be matched to the surrounding surface by providing required thickness of plaster internal or external plaster. Curing Minimum 7 days curing shall be done to the newly repaired area using any suitable method. Required Compressive strength (ASTM C109 7cm cube) Ready Mix Polymer Modified Mortar used on site shall be sent for testing of compressive strength and minimum strength required to be achieved is as follows – 1 Day-15 MPa, 3 Day-25 MPa, 7 Day-35 MPa, 28 Day-45 MPa.				
15.07	Providing and applying epoxy mortar for repairs to cracked portions of RCC columns, piers, beams, girders, diaphragms, slabs, parapets etc. including chipping the loose cracked concrete, cleaning the surface and removing the rust thoroughly and completely by means of wire brushes, sand blasting and washing with water etc. rebuilding the section by first applying one coat of epoxy primer coat of araldite / GY 257 and hardener HY840 in 100:50 proportion by weight, applying epoxy mortar prepared by mixing araldite, hardener and quartzite sand in 100:50:900 proportion by weight in required shape and architectural finishes, if any, finishing the surface smooth including applying a seal coat of araldite and hardener in 100:50 proportion by weight with stiff nylon bristle brush etc. complete as specified as directed.	Kg	500.00	459.00	2,29,500.00
15.08	Repairing to the existing RCC structural members (vertical or horizontal) using ready mix Micro Concrete of approved brand where the thickness of repair is more than 30 mm and upto 115 mm. It can be used for carrying out extensive repairs to beams, columns and other structural elements, repairing of structural members subjected to repetitive loading & for Jacketing of beams, columns and other structural elements for strengthening. Procedure for carrying out repairing/jacketing using ready mix micro concrete- Surface preparation- (separate payment shall be made) All loose traces of concrete or mortar, dust, grease oil, etc. must be removed. Damaged or contaminated concrete shall be removed to obtain a keyed aggregate exposed surface. Non-impact/ vibrating cleaning methods, e.g. grit or high pressure water blasting are recommended. Cut the edges of the repair vertically to a minimum depth of 20 mm. Clean all exposed reinforcement to a minimum grade of Sa 2 according to ISO 8501-1 / ISO 2944-4. Ensure back of reinforcing bar is also clean. Where reinforcing bars are corroded, cut back the concrete to at least 20mm behind the reinforcing bars and coat old and new with approved epoxy coating for corrosion protection Water Powder ration Grit blast around the reinforcing bars to remove corrosion products or any other method recommended by Engineer In charge or Structural Consultant.	Kg	30812.00	41.00	12,63,292.00

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
	Replace the affected part of reinforcing bar if the diameter after grit blasting is found reduced by more than 20% of the original diameter on the advice of the structural engineer responsible for the works. Bond Coat- (separate payment shall be made) Providing & applying One coat of structural grade epoxy bond coat by brush conforming to ASTM-C-882-87 to the prepared concrete surface to be repaired / strengthened and micro concreting pouring shall be done when the surface is tacky. Formwork – (No separate payment shall be made)The forms must be of good quality, treated with a chemical release agent for smooth release, provided with water drain holes, strong and well braced to withstand the fluid pressure of the mortar until it hardens. Mixing - Only full bags are mixed. Damaged or opened bags should not be used. Mix the ready mix Micro Concrete in a forced action pan mixer, or with a helical paddle attached to a low speed (300-600rpm) mixer for 3 minutes until a lump free, flowable consistency is achieved. Only use clean water. Mixing water needed: 3.25 to 3.75 litres per 25kg bag or as recommended by the Manufacturer of Micro Concrete. Allow the mortar to rest for 2 - 3 minutes and then remix briefly before pouring into formwork. If temperature more than 40°C then use chilled water for mixing. Mortar application- The minimum temperatures must be maintained during application and for at least 24 hours thereafter for optimum curing of the product. The prepared substrate should be presoaked, preferably for 24 hours, but at least 2 hours before applying Ready Mix Micro Concrete ensure all water is removed from formwork prior to installation and formwork is resealed. Ready Mix Micro Concrete should be pumped or poured into the prepared formwork until the void is filled. Pumping is recommended for larger pours. Do not vibrate Ready Mix Micro Concrete as it could lead to segregation. The formwork should be removed after 1-3 days and a curing compound applied. If subsequent coats are to be applied the use of clear polythene is recommended for the first three days after removal of formwork. For repairs beyond 80mm to 100mm in thickness, extend Ready Mix Micro Concrete with up to 25kg of 5-12mm sized washed, saturated surface-dry (SSD), graded low absorption, high density aggregates. Protective coatings- (separate payment shall be made) Subsequent coatings of any anticarbonation barriers or silane impregnations should be applied if recommend by the Structural Engineer. Curing - Minimum 7 days curing shall be done to the newly repaired/jacketed area using any suitable method. Required Compressive strength (ASTM C109 7cm cube) Ready Mix Micro Concrete used on site shall be sent for testing of compressive strength and minimum strength required to be achieved is as follows – 1 Day-15 MPa, 3 Day-25 MPa, 7 Day-35 MPa, 28 Day-40 MPa. Note- Payment is to be made by weight premixed of micro concrete product consumed as per site register records.				
15.09	Providing and laying insitu / ready mix M35 grade RCC jacketing work around the existing piers of bridges etc. complete. (with fully automatic micro processor based PLC with SCADA enabled concrete batch mix plant / pan mixer with fine aggregates of required specifications (VSI sand finely washed etc), height of 8 to 10 meter).	Sqm	34.00	8986.79	3,05,550.73

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
15.10	Providing & applying structural grade epoxy approved bond coat prior to application of any type of mortar confirming to IS codes or equivalent to ensure bond between old concrete & new concrete by brush application etc complete.	Sqm	533.00	774.90	4,13,021.70
15.11	Sealing of cracks/porous concrete by injection process through nipples/Grouting complete as per Technical specification Cement Grout	Kg	300.00	261.00	78,300.00
15.12	Providing Grouting of nozzles with Low Viscosity Epoxy grout including material, labour complete in all respect.	Kg	20.00	1741.95	34,839.00
15.13	Providing and inserting nipples with approved fixing compound after drilling holes for grouting as per Technical specifications including subsequent cutting/removal and sealing of the hole as necessary of nipples after completion of grouting with Cement/Epoxy	Each	115.00	215.00	24,725.00
16.00	JACKETING				
16.01	Dismantling brick masonry in lime or cement mortar and stacking the materials as directed with all leads, lifts etc.	Cum	12.00	351.75	4,221.00
16.02	Providing second class Burnt Brick masonry with conventional/ I.S. type bricks in cement mortar 1:6 in superstructure including striking joints, raking out joints, watering and scaffolding etc. Complete	Cum	6.00	8866.43	53,198.60
16.03	Removing rich mix cement concrete including stacking the spoils as directed with all leads, lifts etc, complete.	Cum	1.00	976.50	976.50
16.04	Excavation for foundation in earth, soil of all types, sand, gravel and soft murum, including removing the excavated material upto a distance of 50m. beyond the building area and stacking and spreading as directed, dewatering, preparing the bed for the foundation and necessary backfilling, ramming, watering including shoring and strutting etc. complete. (Lift upto 0.00 to 1.50 m.) By Manual Means	Cum	1.00	250.95	250.95
16.05	Providing dry/ trap/ granite/ quartzite/ gneiss rubble stone soling 15cm to 20cm thick including hand packing and compacting etc. complete	Cum	1.00	1817.49	1,817.49
16.06	Providing and laying Cast insitu/ Ready Mix cement concrete in M15 of trap/ granite/ quartzite/ gneiss metal for foundation and bedding/ steps including steel centering, formwork, laying/ pumping, compacting, roughening them if special finish is to be provided, finishing uneven and honey combed surface and curing etc. complete. The Cement Mortar 1:3 plaster is considered for rendering uneven and honey combed surface, only. Newly laid concrete shall be covered by gunny bag, plastic, tarpaulin etc. (Wooden centering will not be allowed.), with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)	Cum	1.00	7417.28	7,417.28
16.07	Shear Connectors: Make 10/12 mm dia holes using heavy duty electrically operated hammer drills in the concrete of RCC members to a depth of about 75 mm at 500 mm c/c or at suitable grid in zig-zag fashion, clean the holes using air jet and fix pre- fabricated 100 x 50 mm L-shape 8 mm dia rebar using Anti Corrosive protective coating so that 75 mm out of 100 mm is inserted inside the concrete and 25 mm remain outside along with 50 mm bend. The shear connectors are used to tie the additional reinforcement bars	Nos.	4512.00	561.00	25,31,232.00
16.08	Providing and laying insitu / ready mix M35 grade RCC jacketing work around the existing piers of bridges etc. complete. (with fully automatic micro processor based PLC with SCADA enabled concrete batch mix plant / pan mixer with fine aggregates of required specifications (VSI sand finely washed etc), height of 8 to 10 meter).	Sqm	0.00	8275.38	0.00

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
17.00	WATERPROOFING				
17.01	Removing brick bat coba including stacking the spoils as directed with all leads, lifts etc, complete.	Cum	12.00	664.65	7,975.80
17.02	Lowering down the debris obtained from breaking and removing the cement plaster/ burnt brick masonry of the first floor by any means without causing dust nuisance and damage to structure, stacking the same as and where directed including cleaning the site complete	Cum	12.00	789.60	9,475.20
17.03	Providing and applying of MARISEAL 250 or equivalent approved make of Polyurethane coating in two coats for terrace waterproofing having more than 400 % elongation at break. The final curing time shall be of 7 days. The Water Vapor Permeability shall be more than 25 gr/m ² /day. The service temperature shall be of 30 to 90 Deg Cel and the adhesion to concrete properties shall be more than 1.5 N/mm ² . The coating shall be highly permanent elastic, cold applied and cold curing, one component polyurethane membrane. The coating shall have mechanical, chemical, thermal, UV and natural element resistance properties. The MARISEAL 710 Polyurethane Primer or equivalent approved make solvent based primer shall be used for quick drying. The MARISEAL FABRIC or equivalent approved make shall be used as a reinforcing fabric for liquid applied waterproofing membranes.	Sqm	77.00	1716.00	1,32,132.00
18.00	PLASTERING				
18.01	Removing the existing cement plaster of any thickness without causing dust nuisance and stacking the debris upto a distance of 50 metres or spreading in the compound and cleaning the site etc. complete.	Sqm	3280.00	54.60	1,79,088.00
18.02	Providing sand faced plaster externally in cement mortar using approved screened sand, in all positions including base coat of 15mm thick in cement mortar 1:4 using waterproofing compound at 1 Kilogram per cement bag curing the same for not less than 2 days and keeping the surface of the base coat rough to receive the sand faced treatment 6 to 8 mm thick in cement mortar 1:4 finishing the surface by taking out grains and curing for fourteen days scaffolding etc.complete.	Sqm	1383.00	701.02	9,69,505.25
18.03	Providing internal cement plaster 12mm thick in single coat in cement mortar 1:4 without neeru finish to concrete or brick surfaces, in all positions including scaffolding and curing etc. complete.	Sqm	1779.00	305.57	5,43,607.48
18.04	Providing internal cement plaster 6mm thick in a single coat in cement mortar 1:4 without neeru finish to concrete surface in all positions including scaffolding and curing etc. complete.	Sqm	118.00	220.07	25,968.48
19.00	TILING				
19.01	Removing mosaic, cement marble, granites non-slippery, tandur, kotah, shahabad stone or Indian Pattern stone, glazed tiles in flooring and dado including bedding brick bat coba etc., and delivering materials in Ward Office and carting away unserviceable materials.	Sqm	266.00	315.00	83,790.00
19.02	Providing and laying ceramic tiles of having size 30cm.x30cm. and confirming to corresponding I.S. for dado and skirting in required position with ready made adhesive mortar of approved quality on plaster of 1:2 cement mortar including joint filling with white/ colour cement slurry cleaning curing etc. complete.	Sqm	266.00	1333.24	3,54,643.00
20.00	PAINTING				
20.01	Providing and applying two coats Apex Ultima Puranature Anti-Pollution Or equivalent approved brand, paint should decomposes organic substances and inorganic gases (NOx, VOC's, CO, SOx, formaldehydes, etc.) in presence of natural or artificial light. It contains Graphene and nano particles of titanium oxide.	Sqm	1383.00	390.60	5,40,199.80

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
	and Absorbs CO2 (4.8 Kilogram/15l). plaster crack should be filled by Acrylic base Crack seal/ Textured Crack filler, Paint has to be applied on one coat of Apex Ultima Puranature Anti-Pollution Primer or Equivalent. Warranty Should be given by the Manufacturer The work should be done by the Manufacturer Recommended applicator and he should be able to furnish stage wise on site technical reports from the concerned company technologist.				
20.02	Providing and applying priming coat on concrete/ masonry/ Asbestos Cement plastered surfaces including scaffolding if necessary, preparing the surface by thoroughly cleaning oil, grease, dirt and other foreign matter and sand papering as required etc.complete.	Sqm	190.00	37.80	7,182.00
20.03	Providing and applying two coats of flat oil paint of approved colour and shade to internal/ external plastered surfaces including scaffolding if necessary, cleaning and preparing the surface (excluding primer coat) etc. complete.	Sqm	190.00	106.05	20,149.50
20.04	Providing and applying priming coat over new/old steel and other metal surfaces including preparing the surface by thoroughly cleaning oil, grease, dirt and other foreign matter and scoured with wire brushes, fine steel wool, scrappers and sand paper, scaffolding etc.complete.	Sqm	3163.00	38.85	1,22,882.55
20.05	Providing and applying white-wash in two coat on old/ new plastered or masonry surfaces and asbestos cement sheets including scaffolding and preparing the surface by brushing and brooming down etc. complete.	Sqm	2438.00	12.60	30,718.80
20.06	Providing and applying two coats of flat oil paint of approved colour to the old structural steel work and iron work previously painted in building including scaffolding, if necessary, cleaning and preparing the surface (excluding primer coat) etc. complete.	Sqm	3163.00	89.25	2,82,297.75
20.07	Providing and applying two coats of lead/zinc base oil paint/ bituminous paint of approved colour and shade to old wood work and fiber boards previously painted including if necessary scaffolding, preparing the surface excluding priming coat etc. complete.	Sqm	7.00	75.60	529.20
21.00	ROOFING WORK				
21.01	Removing Existing Mangalore tiles / AC / GI / Galvalume Sheets/polycarbonate plain and corrugated sheets from roof / cladding / partitions etc., excluding supporting structure but including scaffolding, handling, transporting, sorting and stacking at site lead up to 150m and or disposing etc complete as directed.	Sqm	1307.00	127.00	1,65,989.00
21.02	Providing and applying of MARISEAL 250 or equivalent approved make of Polyurethane coating in two coats for terrace waterproofing having more than 400 % elongation at break. The final curing time shall be of 7 days. The Water Vapor Permeability shall be more than 25 gr/m2 /day. The service temperature shall be of 30 to 90 Deg Cel and the adhesion to concrete properties shall be more than 1.5 N/mm2. The coating shall be highly permanent elastic, cold applied and cold curing, one component polyurethane membrane. The coating shall have mechanical, chemical, thermal, UV and natural element resistance properties. The MARISEAL 710 Polyurethane Primer or equivalent approved make solvent based primer shall be used for quick drying. The MARISEAL FABRIC or equivalent approved make shall be used as a reinforcing fabric for liquid applied waterproofing membranes.	Sqm	1438.00	4200.00	60,39,600.00
21.03	Providing & installing flashings in 0.5mm pre painted galvalume steel (PPGL) Approved Make - Kingspan Jindal or equivalent	kg	317.00	252.00	79,884.00
22.00	FABRICATION				

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
22.01	Providing and fabricating structural steel work in rolled sections like joists, channels, angles, tees etc. as per detailed design and drawings or as directed including cutting, fabricating, hoisting, erecting, fixing in position making riveted/ bolted/ welded connections without connecting plates, braces etc. and including one coat of anticorrosive paint and over it two coats of oil painting of approved quality and shade etc. complete.	MT	10.00	106936.20	10,69,362.00
23.00	MISCELLANEOUS				
23.01	Removing cast iron or wrought iron or A.C. pipe and stacking them as directed with all leads, lifts etc. complete.	Rmt	11.00	23.10	254.10
23.02	Providing and fixing P.V.C. Rain water pipes of 110mm outer diameter and having wall thickness of 2.2 to 2.7 mm confirming to I.S.13592-1992 including proper rain water receiving recess with P.V.C. plug, bend, necessary fittings, such as, offsets, shoes, including fixing the pipe on wall using approved wooden cleats projecting 25mm to 40mm from face of wall a fixing with clips of approved quality and One Number, filling the joint using rubber gasket with solvent cement and properly resting the shoe of pipes on C.C. or masonry blocks, including necessary scaffolding and maintenance for 3 yrs for any leakages or dislocations of pipes. All the P.V.C. fittings and additional 2 piece socket clips shall be got approved from engineer in charge etc. complete.	Rmt	11.00	597.45	6,571.95
23.03	Removal of plants/ ficus grown by pulling out root system embedded in masnory, cutting stem and application of high/ gur/ lime formulation as specified by the Architect or other patented chemical biocide treatment such as biocide 'Glycel' (iso proplamine salt of glyphosate) or other chemical as specified by the Engineer in charge etc. complete.	Nos.	22.00	239.40	5,266.80
23.04	Providing antitermite treatment to the sides of flooring of the existing building as per I.S.6313 (Part-III) by punching holes 6mm dia. drilled at a distance of 30cm. centre to centre and injecting one percent of chlorodane emulsion concentrate at the rate of 50 ml per hole and sealing by filling putty etc. complete covering 2 years guarantee on bond paper.	Nos.	477.00	27.30	13,022.10
23.05	Providing and fixing Jute Kantan (Tarat) screen to the scaffold-ing for external guniting as directed including removing the same after the work is over etc. complete.	Sqm	2002.00	71.40	1,42,942.80
23.06	Disposal of building rubbish / malba / similar unserviceable, dismantled or waste materials by mechanical means including loading, transporting, unloading to approved municipal dumping ground or as approved by Engineer-in-charge, beyond 50 m initial lead, for all loads including all lifts involved. For 25 Km Lead	Cum	122.00	565.85	69,033.54
23.07	Removing existing existing RCC ballusters and stacking the same as directed by the Engineer In Charge.	Rmt	30.00	16.00	480.00
23.08	Providing and Fixing mat finish stainless steel (of 302 grade) railing with top pipe of 50 mm dia. and vertical pipe of 38 mm dia at 0.60 m c/c or as required and horizontal pipes of 25 mm dia in three rows, all pipes of 2 mm thick including buffing,fabricating fixtures and fastening including pipe base of appropriate diameter and ball base of 75 mm dia above newel post of 75 mm diameter etc. complete (Prior approval of sample and brand by Ex.Engineer is necessary before use)	Rmt	30.00	3722.25	1,11,667.50
		Total - Rs.			1,96,77,003.74
		Say - Rs.			1,96,77,004.00
G	TESTING				
1.00	BASIC TEST OF CEMENT:- Standard Consistency, Fineness, Specific Gravity, Setting Time (Initial & Final), Compressive Strength, Soundness.	Test	1.00	3770.00	3,770.00
2.00	FINE AGGREGATES : Carrying out test of Fineness Modulus (Sieve Analysis), Silt & Clay Content	Test	1.00	1380.00	1,380.00

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
3.00	FINE AGGREGATES : Carrying out test of Fineness Chloride & Sulphate Content	Test	1.00	795.00	795.00
4.00	FINE AGGREGATES : Carrying out test of Silt Factor.	Test	1.00	850.00	850.00
5.00	BASIC TEST OF AGGREGATE: Water Absorption, Specific Gravity, Impact Value, Crushing Value.	Test	1.00	2600.00	2,600.00
6.00	CONCRETE: Compressive Strength OF C.C. Cube (Set of 3 cubes).	Test	5.00	690.00	3,450.00
7.00	CONCRETE: Concrete Mix Design (With all Tests on basic materials).	Test	1.00	13755.00	13,755.00
8.00	STONE/ RUBBLE: Crushing Value/Compressive Strength, Water Absorption & Specific Gravity,	Test	1.00	2020.00	2,020.00
9.00	WATER: PH Value, Sulphate & Chloride Content.	Test	1.00	1115.00	1,115.00
10.00	STEEL ANTI CORROSIVE TEST: Chemical Resistance Test.(Set of 8 Bars).	Test	1.00	2390.00	2,390.00
11.00	STEEL ANTI CORROSIVE TEST: Salt Spray Test (4 Cycles) (Set of 2 Bars).	Test	1.00	1485.00	1,485.00
		Testing Charges			33,610.00
F	ROYALTY				
1.00	Royalty Charges for Sand are to be paid to the contractor after producing receipt of royalty paid to the Govt. for the material used for this work.	Cum	218.78	237.37	51,932.52
2.00	Royalty Charges for Other Minerals are to be paid to the contractor after producing receipt of royalty paid to the Govt. for the material used for this work.	Cum	1.00	216.18	216.18
		Royalty Charges			52,148.70

PROPOSED INTERIOR WORK OF MAKEUP ROOMS AT STUDIO NO. 7					
1	ITEM NO:-01 Dismantling brick masonry in lime or cement mortar and stacking the materials as directed with all leads, lifts etc. SSR 46.09/296	CMT	8.03	351.75	2,825.65
2	ITEM NO:-02 Removing cement tiles, or marble or polished shahabad floor or dado without bed concrete including stacking the materials as directed with all leads, lifts etc. complete SSR 46.19/297	SMT	378.59	47.25	17,888.38
3	ITEM NO:-03 Removing brick bat coba including stacking the spoils as directed with all leads, lifts etc, complete. SSR 46.14/296	CMT	12.46	664.65	8,282.87
4	ITEM NO:-04 Dismantling aluminium/ Gypsum partitions, doors, windows, fixed glazing and false ceiling including disposal of unserviceable surplus material and stacking of serviceable material with in 50 meters lead as directed by Engineer-in-charge. MCGM/R3-CS-DD-51	SMT	119.10	42.00	5,002.20
5	ITEM NO.05 Removing doors and windows with frames and stacking the materials as directed with all leads, lifts etc. complete.	NOS	45.00	163.80	7,371.00
6	ITEM NO.06 Removing ventilators and small windows with frame and stacking the materials with all leads, lifts etc. complete.	NOS	9.00	138.60	1,247.40

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
7	ITEM NO :- 07 Removing urinal pans or wash hand basins with frame including disconnecting the sanitary and water supply connections, removing the same carefully and stacking the serviceable materials as and where directed including throwing the unserviceable materials outside etc complete SSR 46.40/298	NOS	9.00	100.80	907.20
8	ITEM NO :- 08 Removing W.C. pans including disconnecting the sanitary and water supply connections, removing and breaking flooring and bed concrete around pan removing the same carefully and stacking the serviceable materials as and where directed including throwing the unserviceable materials out side etc. carefully and throwing out the refusal outside etc complete SSR 46.41/298	NOS	9.00	217.35	1,956.15
9	ITEM NO :- 09 Providing second class Burnt Brick masonry with conventional/ I.S. type bricks in cement mortar 1:6 in superstructure including striking joints, raking out joints, watering and scaffolding etc. Complete SSR 27.05 / 197	CMT	12.71	10,027.16	1,27,492.83
10	ITEM NO :- 10 Removing the existing cement plaster of any thickness without causing dust nuisance and stacking the debris upto a distance of 50 metres or spreading in the compound and cleaning the site etc. complete. SSR 32.33/211	SMT	503.73	54.60	27,503.66
11	ITEM NO :- 11 Providing internal cement plaster 12mm thick in single coat in cement mortar 1:4 without neeru finish to concrete or brick surfaces, in all positions including scaffolding and curing etc. complete. SSR 32.04 / 209	SMT	503.61	305.40	1,53,802.49
12	ITEM NO :- 12 Providing sand faced plaster externally in cement mortar using approved screened sand, in all positions including base coat of 15 mm thick in cement mortar 1:4 using waterproofing compound at 1Kilogramper cement bag curing the same for not less than 2 days and keeping the surface of the base coat rough to receive the sand faced treatment 6 to 8 mm thick in cement mortar 1:4 finishing the surface by taking out grains and curing for fourteen days scaffolding etc.complete.	SMT	9.30	700.64	6,515.95
13	ITEM NO :- 13 Providing and applying plaster / wall punning with plaster of paris (with plaster of paris material of Ambuja / Mor Chap or equivalent make) in 10 to 13 millimeter thickness to previously plastered surface / or on newly brick surface (Excluding rough cast plaster) in all position including preparing and Finishing the surface scaffolding etc complete	SMT	271.26	600.60	1,62,918.76

Item No.	Description	Unit	Qty.	Rate	Amount
14	ITEM NO :- 14 Providing and applying priming coat on concrete/ masonry/ Asbestos Cement plastered surfaces including scaffolding if necessary, preparing the surface by thoroughly cleaning oil, grease, dirt and other foreign matter and sand papering as required etc. complete.SSR 35.21 / 225	SMT	396.36	37.80	14,982.41
15	ITEM NO :- 15 Providing and applying plaster with plaster of paris in 6mm thickness to previously plaster surface in all position including preparing the surface scaffolding etc. complete. SSR 32.27/210	SMT	396.36	151.20	59,929.63
16	ITEM NO :- 16 Providing and applying Royale Luxury Emulsion of approved make on internal wall surface as detailed below Scrapping for surface with emery paper and wipe clean for area. wall primer with brush by adding mineral turpentine oil by 8 to 10 % or water by 15 to 20% allowing to dry for 6 to 8 hours After applying acrylic wall putty with appropriate prpportion of water of allow to dry for period of 4 to 6 hours of activity. Scrapping with emery paper and wipe clean Applying paints Royale Luxury emulsion 1st coat with brush water content water 40 to 45% or 65 to 70% by role Applying paints Royale luxury emulsion 2nd coat with brush with water content 40 to 45% or 65 to 70 % by roller. (With prior approval of S.E.) SSR 36.21/229	SMT	278.76	288.75	80,491.95
17	ITEM NO :- 17 Providing and applying plastic emulsion paint of approved quality, colour and shade to new surface in three coats including scaffolding, preparing the surface. (excluding primer coat) etc. complete. SSR 36.14/228	SMT	118.45	141.75	16,790.29
18	ITEM NO :- 18 Providing and applying two coats of synthetic enamel paint of approved colour to new /old structural steel work and wood work in buildings, including scaffolding if necessary, cleaning and preparing the surface (excluding primer coat) etc. complete. SSR 35.07 /223	SMT	10.00	100.80	1,008.00
19	ITEM NO :- 19 Providing and laying vitrified mirror / glossy finish tiles decorative type having size 590 mm to 605 mm x 590 mm to 605 mm of 8 to 10 mm thickness and confirming to IS. 15622-2006 (group Bla) of approved make, shade and pattern for flooring in required position laid on a bed of 1:4 cement mortar including neat cement float, filling joints, curing and clearing etc. complete. a) Flooring SSR 33.40 / 217	SMT	83.95	1,253.84	1,05,259.87

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
20	ITEM NO :- 20 Providing and laying vitrified mirror / glossy finish tiles having size 590 mm to 605 mm x 590 mm to 605 mm of 8 to 10 mm thickness and confirming to IS. 15622-2006 (group Bla) of approved make, shade and pattern for dado and skirting in required position fixed in 1:4 cement mortar including neat cement float, filling joints, curing and clearing etc.completeSSR 33.41 / 217	SMT	145.98	1,332.59	1,94,531.49
21	ITEM NO :- 21 Providing and laying vitrified matt fininsh tiles having size 590 mm to 605 mm x to 605 mm of 8 to 10 mm thickness and confirming IS. 15622-2006 (Group Bla) of approved make, shade and pattern for flooring in required position laid on a bed of 1:4 cement morar including neat cement float, filling joints, curing and cleaning etc. complete. SSR 33.42 /217	SMT	92.20	1,697.99	1,56,554.68
22	ITEM NO :- 22 Providing and laying Antiskid Ceramic tiles of approved quality of size 30 cm x 30 cm and confirming to IS 15622-2006 (Group-B IIA) for antiski flooring in required position laid on a bed of 1:4 cement mortar including cement float, filling joint with cement slurry cleaning curing etc. complete. SSR 33.67/220	SMT	5.00	1,275.29	6,376.45
23	ITEM NO :- 23 Providing and laying ceramic tiles having size 30 cm. x 60 cm. confirming to corresponding I.S. for dado and skirting in required position with readymade adhesive mortar of approved quality on plaster of 1:2 cement mortar including joint filling with white/ colour cement slurry cleaning curing etc. complete. SSR 33.27/215	SMT	5.00	1,476.89	7,384.45
24	ITEM NO :- 24 Providing and laying hand made tile of various size and approved designs for dado and skirting in required position with readymade adhesive mortar of approved quality on plaster of 1:2 cement mortar including joint filling with white/ colour cement slurry cleaning curing etc. complete. MR	SMT	5.00	9,890.00	49,450.00
25	ITEM NO :- 25 Providing and laying machine cut machine Polished Kota stone flooring 25mm to 30mm thick and required width in plain/ diamond pattern on bed of 1:6 C. M. including cement float, filling joints with neat cement slurry, curing, polishing and cleaning etc. complete. SSR 33.06 / 213	SMT	5.00	1,329.14	6,645.70

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
26	ITEM NO :- 26 Providing and laying telephone black / Amba White / Cadburybrown / Ruby red / Ocean Brown granite stone of 18 to 20 mm thick for door frame/ dado/ window boxing etc. On C.M. 1:6 including filling joints with polymer base filler nosing/moulding the sharp edges wherever necessary, curing, etc. complete.SSR 33.68/220	SMT	34.56	4,623.29	1,59,780.90
27	ITEM NO :- 27 Providing and fixing frame with / without ventilator of size as specified with Country cut teak wood for doors and windows including chamfering, rounding, rebating, iron holdfast of size 300mm x 40mm x 5mm with oil painting, etc. complete SSR 39.01 / 245	CMT	1.24	2,10,052.50	2,61,140.34
28	ITEM NO :- 28 Providing and applying melamine polish of required finish to the wood work by spray machine including knotting and preparing the even surface by scraping, applying French polish , scaffolding if required etc. complete. Note:The work to be executed on prior approval of Superintending Engineer will be necessary SSR 34.09/224	SMT	37.24	870.45	32,412.08
29	ITEM NO :- 29 Providing and fixing solid core flush door shutter in single leaf 32 mm thick decorative type of exterior grade as per detailed drawings approved face veneers 3 mm thick on both faces or as directed, all necessary beads, mouldings and lipping, wrought iron hold fasts, chromium plated fixtures and fastenings, with brass mortise lock, chromium plated handles on both sides, and finishing with French Polish etc. complete. SSR 39.09 / 246	SMT	41.70	3,232.95	1,34,814.02
30	ITEM NO :- 30 Providing and fixing fiber glass reinforced polyster door shutter 35 mm thick as per IS 14856 (2000) (Reaffirmed 2006) without ventilator including chromium plated fixtures and fastening with chromium plated handles on both sides, etc complete. SSR 39.59/258	SMT	13.23	3,669.75	48,550.79
31	ITEM NO :- 31 Providing and fixing in position (as per 1868 / 1982) Alluminium sliding window of three tracks with rectangular pipe 95 x 38.10 x 0.90 mm at weight 0.637 kg/Rmt. with window frame bottom track section 92 x 31.75 x 1.30 mm at weight 1.070 kg/Rmt.. Top and side track section 92 x 31.75 x 1.30 mm at weight 0.933 kg/Rmt. The shutter should be of bearing bottom 40 x 18 x 1.25 mm at weight 0.417 kg/Rmt. Inter locking section 40 x 18 x 1.10 mm at weight 0.469 kg/Rmt. and	SMT	21.60	5,777.10	1,24,785.36

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
	handle and top section 40 x 18 x 1.25 mm at weight o.417 kg/Rmt. As per detailed drawings and as directed by Engineerincharge with all necessary Aluminium sections fixtures and fastenings such as roller bearing in nylon casting and self locking catch fitted in vertical section of shutter including 5 mm thick plain glass and aluminium mosquito net shutter with stainless steel jail with all required screws and nuts etc, complete. With colour Anodising with box SSR 39.41 / 253				
32	ITEM NO :- 32 Providing and fixing in position aluminium partly openable and partly fixed window of any size as per detailed drawing and as directed by Engineerincharge with all necessary alluminium sections including necessary fixtures and fastening with 5 mm thick float glass etc. complete. b) With powder coating Note While arriving at the rate of item of item weight at 6.90 Kilogram/Square Metre is considered. SSR 39.55/257	SMT	6.75	6,596.10	44,523.68
33	ITEM NO :- 33 Providing and fixing in position b) Powder Coated aluminium fixed window fully glazed of any size as per detailed drawing and as directed by Engineerincharge with all necessary alluminium sections including necessary fixtures and fastening such as 5 mm thick clear float glass etc. complete. SSR 39.53B/257	SMT	8.13	6,001.80	48,764.63
34	ITEM NO :- 34Providing and fixing in position Gypsum board false ceiling with 12.5 mm thick Gypsum boards, screwed/fixed to the under structure of suspended G.I. Grid constructed and suspended from the main ceiling consisting of ceiling sections of size 25 x 50 mm maximum center to center distance of 600 milimetre perimeter channel and intermediate channels at maximum center to center distance 1200 milimetre galvanized grid should be fixed to reinforced cement concrete slab. The gypsum board should be fixed to galvanized iron grid with necessary screws. The boards should be taped and filled from underside to give smooth, seamless ceiling. The rate should include necessary additional ceiling sections and intermediate channels. Additional intermediate channels should be fixed to strap hangers for additional support to prevent strapping at every 1200 milimetre item to be completed in all respect including necessary sleeves for ducts finishing of joints cut outs, painting including labour, material, lifts etc. all complete.SSR 38.51/243	SMT	118.45	1,857.45	2,20,014.95

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
35	ITEM NO :- 35 Providing water proofing in W.C. and bath including brick bat coba in all position including providing and laying 12mm bed ding in cement mortar 1:3 on vergin concrete slab with waterproofing compound @1 Kilogram/ per bag of cement laying brick bat coba of required thickness in cm 1:5 with waterproofing compound 1Kilogram/ bag of cement grouting and finishing the to play er with 20mm thick brick bed ding in cmmortar 1:3 with waterproofing compound 1Kilogram/ per bag of cement nd testing the treated portion for 48hours by pond test and covering ten years' guarantee on requisite stamp paper including curing etc. complete. SSR 31.26 / 208	CMT	10.35	7,930.50	82,080.68
36	ITEM NO :- 36 Providing and applying water proofing treatment using acrylic polymer modified cement based water proofing coating with fibre glass mesh mixing at the rate of powder to liquid (2:1) by weight covering 9 to 10 sqm /kg with two coat using approved chemicals for masonry and concrete surface by brush covering 7 years guarantee on Stamp Papers etc. complete. SSR 31.09/206	SMT	9.67	645.75	6,244.40
37	ITEM NO :- 37 Providing and fabricating structural steel work in rolled sections like joists, channels, angles, tees etc. as per detailed design and drawings or as directed including cutting, fabricating, hoisting, erecting, fixing in position making riveted / bolted / welded connections without connecting plates, braces etc. and including one coat of anticorrosive paint and over it two coats of oil painting of approved quality and shade etc. complete.SSR 23.01/173	MT	0.50	1,06,936.20	53,468.10
38	ITEM NO :- 38 Providing and fixing on site VENEER FINISH WALL PANELING made by using approved quality seasoned T.W. framing of 38 x 25 mm at approximately 600 x 450 mm center to center or as per site conditions and covered by 12 mm thick marine ply generally conforming to I.S.303 /I.S.710-1980 finished with 3 mm thick group match veneer of approved quality with groove pattern including all necessary end mouldings, moulding pattern, and melamine polish. Antitermite treatment to plywood and woodwork etc.including all leads & lifts complete as per Architects detailed drg. & design and as instructed by The Engineer In Charge (Basic Veneer Rate Rs.75/-per sft) MCGM/ R3-CS-WW-41	SMT	65.23	5,346.00	3,48,743.10

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
39	ITEM NO :- 39 Providing and fixing bevelled edge mirror of superior glass (of approved quality) 6mm glass with 12mm bevelled including edge Polish with PVC backing complete with fixed to wooden cleats with C.P. brass screws and washers complete. MR.	SMT	43.57	2,187.00	95,297.21
40	ITEM NO :- 40 Providing & Fixing Wooden shutters for Storage/Counter made of 18 mm thk plywood with all external surfaces finished with approved laminate of 1.0 mm thk & internal surfaces finished with white/offwhite laminate 0.8 mm thk. All wooden surfaces finished with melamine polish. etc complete As per drawing. Spec. As directed by Engineer-In-Charge MR	SMT	26.10	14,000.00	3,65,400.00
41	ITEM NO :- 41 Providing & Fixing Dressing Table of Approved size .The Dressing table unit is made up 18 mm thk plywood with all external surfaces finished with approved laminate of 1.0 mm thk & internal surfaces finished with white/offwhite laminate 0.8 mm thk. All wooden surfaces finished with melamine polish. The unit has drawer and shelf. including Light Provision and complete as per specification. MR	SMT	18.74	23,600.00	4,42,323.00
42	ITEM NO :- 42 Providing and applying pearl/ luster finish paint of approved colour and shade to the existing plaster surface including scaffolding, preparing the surface, applying the acrylic wall putti etc. complete.SSR 35.23 / 225	SMT	1.00	226.80	226.80
43	ITEM NO :- 43 Providing and fixing 20 mm thick superior veneer board pelmet box 150 to 200 mm wide to doors or window frames including 20mm dia. Aluminium curtain rod with sockets and finishing with french polishing (without top)etc. complete.	SMT	11.03	3,687.60	40,655.79
44	ITEM NO :- 44 center table Providing and supplying canter table of required size with top made of 8mm thick clear toughened glass with bevelled edge from bottom edge of the glass border and vertical edge with polish etc. complete. Understructure made of 25mm thick Marine ply (IS 710 : 2010) with all exposed edge finished with 2mm thick machine pressed PVC edge banding in matching colour. (Rehau Make/or Equivalent) for better impact resistance. Nylon button stopper to hold glass top in position, Nylon bushers etc. complete.	NOS	9.00	6,426.00	57,834.00

Item No.	Description	Unit	Qty.	Rate	Amount
45	ITEM NO :- 45 CABIN SOFA Providing and supplying wooden sofa made with minimum 19mm. Marine ply (IS 710 : 2010) structure and internal frame work made of C.P. teak / Maranti wood seat made with minimum 19mm. Marine ply (IS 710 : 2010) and cushion made with foam of 150mm thick - 32 density on seat covered with 14mm thick - 18 density foam. Back made with wooden frame of minimum 50mm X 40mm with 4 mm. ply and covered with foam of 100mm thick - 32 densities covered with 14mm thick - 18 density foam for back extra support to the shape all foam of seat and back covered with tapestry approved by E-I-Charge. (Basic rate Rs. 450/- metre.) Handle made with wooden frame with box of 12mm. ply covered with 14mm thick - 18 density foam with tapestry etc. complete. R3-CS-FUR-17-a / 1 seater	NOS	18.00	17,955.00	3,23,190.00
46	ITEM NO :- 46Sofa Set 3+1+1Providing & fixing Sofa Set 3+1+1 Brown and Cream leather DIMENSION Length:182.5 (cms) Breadth (cms): 100 (cms)Height (cms): 100 (cms) Weight (Kilograms): 66 (Kilogram) Seating Capacity: Five SeatSSR 51.53/366	NOS	3.00	41,592.60	1,24,777.80
47	ITEM NO :- 47 Providing and Fixing Rollar Blinds AMI Make or approved make & shade of 38mm round Aluminium channel with Blackout fabric & telting with chain (Ball) system with all necessary fixtures and fitting etc. complete. (Sample to be final by Engineer In-charge prior execution of work) SSR 51.19/355	SMT	10.80	2,259.60	24,403.68
48	ITEM NO :- 48 Providing & Arrangemnt of High Back, Synchronized Mechanism with Multiple Locking, Adjustable Armrest, Gaslift for Seat height adjustment, Standard 5-prong P/Nylon Base with Leatherite Upholstery SSR 51.40/359	NOS	20.00	18,239.55	3,64,791.00
49	ITEM NO :- 49 providing and fixing laser cut 3mm ss later of height 24 inches with stud weld and back side fixing in wall with chemical grouting all later powder coated all other necessary hardware fitting. MR	INCH /LATER	24.00	201.00	4,824.00
50	ITEM NO :- 50 Stainless steel nameplate : Providing and Fixing the 150mmx50mm Stainless steel nameplate by requirement of Department. PUNE/PWD/187597 64-14	JOB	10.00	275.00	2,750.00

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
51	ITEM NO :-51 Providing and fixing Glass Partition of 12 mm toughen glass and sliding fitting with c bracket and required hardware handle and stopper with installation including operating hardware, SS patch fittings, fabricated long length satin finish SS 304 handles, patchlock , floor springs etc., complete as directed by the architect MR	SMT	23.63	14,050.00	3,31,931.25
52	ITEM NO :- 52 Refixing C.I. and UPVC vent , soil, waste and rain water pipe of any size including cleaning and making good masonry of walls cornices etc. before fixing including fitting such as W.I. clamps, accessories of approved make with scaffolding etc. complete. MCGM/R3-CS-RM-76	RMT	60.00	182.00	10,920.00
53	ITEM NO :- 53Providing LED BULB 5W or7W , 230v, 50 Hz having colour temp up to 6500k complete erected with mains and required switchgears with continuous earth wire cpmplete as per specification.MR	NOS	225.00	297.00	66,825.00
54	ITEM NO :- 54 Supplying and erecting Recess mounted 10-15 W LED wall washers/Spot Light/updown Light, tilted outwards /swivels/flush to wall to offer best illumination on the wall with any colour with driver complete. (Including Compatible Driver) MR	NOS	40.00	2,565.00	1,02,600.00
55	ITEM NO :- 55 Supplying and erecting LED square / circular 15W-18W automatic motion sensor light downlighter/panel concealed as per specification provided by the engineer in charge.complete MR	NOS	9.00	3,720.00	33,480.00
56	ITEM NO :- 56 Supplying and erecting Recess mounted 30W LED wall washers/Spot Light/updown Light, tilted outwards /swivels/flush to wall to offer best illumination on the wall with any colour with driver complete. (Including Compatible Driver) MR	NOS	10.00	5,130.00	51,300.00
57	ITEM NO :- 57 Supply installation testing and commissioning of 4MP, Full HD, 1/2.8 type CMOS image sensor, Vari Focal : 9.0 mm to 22 mm, H.265 / H.264 & MJPEG triple-stream encoding, Max. IR LEDs length 30 m , IP66 rated, 25/30fps@1080P (1920 ×1080), Support ICR for day time and night time operation, Zoom ratio :2.4x Optical (Motorized zoom/ Motorized focus), Bullet Camera. MR.	NOS	4.00	33,412.00	1,33,648.00
INTERIOR TOTAL					53,65,620.00
CONTRACTOR		NO. OF CORRECTIONS		DEPUTY ENGINEER (CIVIL)	

Item No.	Description	Unit	Qty.	Rate	Amount
58	ITEM NO :- 58 Providing and fixing European type wall-hung white water closet of approved make with push valve concealed type with cover plate 32mm size of approved make including soil pipe, vent pipe up to outside face of wall ,100mm dia. G.I. plug bend inlet pipe all fittings, cutting and making good walls, floors etc. complete. SSR 42.86	NOS	9.00	15,777.30	1,41,995.70
59	ITEM NO :- 59 Providing and fixing 1st class white glazed earthenware Orissa Type W.C. Pan 580 mm dia including P or S trap cast iron soil and vent pipe upto the outside face of the wall (1:5:1 0) cement concrete bedding 15 mm thick, 10 liter P.V.C. flushing cistern with all necessary pipe connection etc. complete SSR 42.33	NOS	1.00	7,757.40	7,757.40
60	ITEM NO :- 60 Providing and fixing Oval Type Under Counter Wash Hand Basin of 420 x 590 x 195mm size with pillar cock, C.P. Angular stop cock, long thread of approved make continental including SS bottle trap of necessary pipe connection up to the outside face of the wall, having Telephonic Black / Colour Granite of 180 mm thick fixed on Black Kadappa Framework, etc. Complete as directed by Engineer in charge. SSR 48.35 /315	NOS	9.00	20,883.45	1,87,951.05
61	ITEM NO :- 61 Providing and fixing C.P. BIB cock with wall flange of approved make including necessary sockets/ union nut etc. complete. SSR 42.83	NOS	9.00	1,163.40	10,470.60
62	ITEM NO :- 62 C.P. angular stop cock with wall flange jaquar make continental (Cat.No. CON- 059) SSR 216	NOS	27.00	720.30	19,448.10
63	ITEM NO :- 63 Providing and fixing C.P. a 2-Way BIB cock with wall flange of approved make including necessary sockets/ union nut etc. complete as directed by Engineer in charge. SSR 48.39	NOS	9.00	2,482.20	22,339.80
64	ITEM NO :- 64 Providing and fixing 15 mm diameter PVC Aqua kraft type of approved make super jet spray with flange 2 in 1 faucet 1.50 metre long including all accessories etc complete SSR 43.39	NOS	9.00	808.50	7,276.50
65	ITEM NO :- 65 Providing and fixing 450mm x 550mm size superior type Belgium mirror with 16mm dia. nickel plated towel rod etc. complete. SSR 42.20	NOS	9.00	904.05	8,136.45
66	ITEM NO :- 66 C.P. Toilet paper holder jaquar make continental (Cat. No. AQ 7751) SSR 232	NOS	9.00	1,048.95	9,440.55
67	ITEM NO :- 67 Supplying and erecting storage type water heater 15 litres capacity having standing loss <0.419 kWh / 24 hour / 45°C, high impact resistance engineering plastic body with anti corrosive high grade steel inner tank heating element having hard water & corrosion protection, with minimum 3 safety protections (i.e. thermostat & thermal cut-out, multi function valve) with total pressure 8 bar withstanding capacity duly tested and marking sr. no. and date of erection complete. specification no. AP-WH/STWH CSR 3-1-1	NOS	9.00	8,991.00	80,919.00

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
68	ITEM NO :-68 Providing and fixing diverter with overhead shower, shower arm, spout, hand shower with wall bracket having flow rate up to 12 liters/minutes of Jaquar/Cera/Hindware /Perryware or equivalent make including all necessary pipes, fittings etc. complete as directed by Engineer In Charge. (Make shall conform to manufacturer's Green product and shall got approved from the Engineer In Charge.) 48.33 /315	NOS	9.00	15,609.30	1,40,483.70
	WATER SUPPLY				
69	ITEM NO :- 69 Providing and fixing 75 mm dia stabiliser pipe/ P.V.C. soil vent/waste pipe and with necessary fixtures and fitting such as bends, tees, single junctions, slotted vent, clamps etc. complete SSR 42.51	RMT	50.00	637.35	31,867.50
70	ITEM NO :- 70 Providing and fixing on walls/ ceiling/ floor 15 mm dia. CPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete. SSR 42.55	RMT	50.00	279.30	13,965.00
71	ITEM NO :- 71 Providing and fixing on walls/ceiling/floor 20 mm dia. CPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete SSR 42.56	RMT	80.00	325.50	26,040.00
72	ITEM NO :- 72 Providing and fixing on walls/ ceiling/ floor 25 mm dia. CPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete. SSR 42.57	RMT	50.00	393.75	19,687.50
73	ITEM NO :- 73 Providing and fixing on walls/ ceiling/ floor 32 mm dia. CPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete. SSR 42.58	RMT	30.00	452.55	13,576.50
74	ITEM NO :- 74 Providing and fixing on walls /ceiling/ floor 40 mm dia. CPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete. SSR 42.59	RMT	30.00	565.95	16,978.50
75	ITEM NO :- 75 Providing and fixing on walls/ ceiling/ floor 50 mm dia. CPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. SSR 42.60	RMT	30.00	778.05	23,341.50
	FIRE				
76	ITEM NO :- 76 Supplying & erecting Carbon Dioxide (CO2) fire extinguisher of 4.5 kg. capacity cartridge type conform to IS 2878 /15683 complete erected with necessary clamp made from 50 x 6 mm. M. S. flat with nut & bolts routed in wall complete. CSR 13-15-1	Nos.	6.00	9,902.00	59,412.00
TOTAL					8,41,087.35

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
			(A) TOTAL INTERIOR		53,65,620.00
			(B) TOTAL PLUMBING		8,41,087.35
			(C) TOTAL (A+B)		62,06,707.35

Name of Work : Repair and Upgradation of Studio 16 at Goregaon Filmcity					
ABSTRACT SHEET					
Item No.	Description	Unit	Qty.	Rate	Amount
A1	Civil Work for upgradation of existing Structure				
1.00	DEMOLITION WORK				
1.01	Removing brick bat coba including stacking the spoils as directed with all leads, lifts etc. complete.	Sqm	QRO	664.65	-
1.02	Removing doors and windows with frames and stacking the materials as directed with all leads, lifts etc. complete.	No.	0.00	163.80	0.00
1.03	Removing ventilators and small windows with frame and stacking the materials with all leads, lifts etc. complete.	No.	0.00	138.60	0.00
1.04	Removing cement tiles, or marble or polished shahabad floor or dado without bed concrete including stacking the materials as directed with all leads, lifts etc. complete	Sqm	431.43	47.25	20,384.84
1.05	Removing earthen, stonewate pipe and stacking them as directed with all leads, lifts etc. complete.	RMT	QRO	23.10	-
1.06	Removing cast iron or wrought iron or A.C. pipe and stacking them as directed with all leads, lifts etc. complete.	RMT	QRO	23.10	-
1.07	Dismantling the R.C.C. Work 1:2:4 and sorting out the materials such as steel etc. as directed and stacking them within the specified lead as directed etc. complete.	Cum	QRO	1523.55	-
1.08	Removing urinal pans or wash hand basins with frame including disconnecting the sanitary and water supply connections, removing the same carefully and stacking the serviceable materials as and where directed including throwing the unserviceable materials outside etc complete	No	0.00	100.80	0.00
1.09	Removing W.C. pans including disconnecting the sanitary and water supply connections, removing and breaking flooring and bed con-crete around pan removing the same carefully and stacking the serviceable materials as adn where directed including throwing the unserviceable materiasls out side etc. carefully and throwing out the refusal outside etc. complete.	No	0.00	217.35	0.00
1.10	Removing chockes and leakages from down take G.I/CI/PVC pipe line on walls floor level by using zoola / scaffolding and rectify the same for functioning with all lifts etc. complete.	No	QRO	328.65	-
1.11	Manually clearing the chockes from under ground drainage line including Inspection chambers with the help of required tools for propre functioning line chamber to chamber etc. complete.	No	QRO	51.45	-
1.12	Manually clearing by removeing the chockes from Nahni Trap, Gully Trap, Wash basin unit, Sink and WC with the help of required tools for proper functioning the same etc. complete.	No	QRO	195.30	-
1.13	Lowering down the debris obtained from breaking and removing the cement plaster / burnt brick masonry of the first floor by any means without causing dust nuisance and damage to structure, stacking the same as and where directed including cleaning the site complete.	Cum	QRO	789.60	-
1.14	Dismantling aluminium/ Gypsum partitions, doors, windows, fixed glazing and false ceiling including disposal of unserviceable surplus material and stacking of serviceable material with in 50 meters lead asdirected by Engineer-in-charge.	Sqm	0.00	42.00	0.00

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
1.15	Removing Existing Mangalore tiles / AC / GI / Galvalume Sheets/polycarbonate plain and corrugated sheets from roof / cladding / partitions etc., excluding supporting structure but including scaffolding, handling, transporting, sorting and stacking at site lead up to 150m and or disposing etc complete as directed.	Cum	QRO	127.00	-
2.00	EARTH WORK				
2.01	Excavation for foundation in earth, soil of all types, sand, gravel and soft muRmt, including removing the excavated material up to a distance of 50 m. beyond the building area and stacking and spreading as directed, dewatering, preparing the bed for the foundation and necessary back filling, ramming, watering including shoring and strutting etc. complete. (Lift upto 1.5 m.) By Mechanical Means	Cum	524.00	217.35	1,13,891.40
2.02	Excavation for foundation in earth, soil of all types, sand, gravel and soft muRmt, including removing the excavated material up to a distance of 50 m. beyond the building area and stacking and spreading as directed, dewatering, preparing the bed for the foundation and necessary back filling, ramming, watering including shoring and strutting etc. complete. (Lift 1.5 m to 3.0 m.) By Mechanical Means	Cum	524.00	270.90	1,41,951.60
2.03	Excavation for foundation in earth, soil of all types, sand, gravel and soft muRmt, including removing the excavated material up to a distance of 50 m. beyond the building area and stacking and spreading as directed, dewatering, preparing the bed for the foundation and necessary back filling, ramming, watering including shoring and strutting etc.(Lift from 3 to 4.5m) complete.	Cum	116.00	412.02	47,794.32
2.04	Providing dry/trap/granite/quartzite/gneiss rubble stone soling 15 cm to 20 cm thick including handpacking and compacting etc.complete.	Cum	42.00	1451.10	60,946.20
3.00	CONCRETE WORK				
3.01	Providing and laying Cast in situ/Ready Mix cement concrete in M15 of trap/ granite/quartzite/gneiss metal for foundation and bedding / steps including steel centering, formwork, laying/pumping, compacting, roughening them if special finish is to be provided, finishing uneven and honeycombed surface and curing etc. complete. The Cement Mortar 1:3 plaster is considered for rendering uneven and honeycombed surface, only. Newly laid concrete shall be covered by gunny bag, plastic, tarpaulin etc. (Wooden centering will not be allowed.),with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)	Cum	19.00	7417.28	1,40,928.31
3.02	Providing and laying Cast in situ/Ready Mix cement concrete M-25 of trap / granite/quartzite/ gneiss metal for R.C.C. work in foundations like raft, strip foundations, grillage and footings of R.C.C. columns and steel stanchions etc. including bailing out water, Steel centering, formwork ,cover blocks, laying/pumping, compaction and curing roughening the surface if special finish is to be provided (Excluding reinforcement and structural steel) etc. complete, with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)	Cum	95.00	7651.35	7,26,878.25
3.03	Providing and fixing in position TMT - FE - 500 bar reinforcement of various diameters for R.C.C. pile caps, footings, foundations, slabs, beams columns, canopies, staircase, newels, chajjas, lintels pardis, copings, fins, arches etc. as per detailed designs, drawings and schedules. including cutting, bending, hooking the bars, binding with wires or tack welding and supporting as required complete.	MT	15.00	94188.15	14,12,822.25

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
3.04	Providing and applying "high strength, non shrink free flow grout material" i. e. micro concrete (like shrink comp or equivalent) having compressive strength as 400 Kilogram/sq.cm. including finishing the surface and curing for 07 days. Etc complete. The usage of this non shrink concrete with zero slump is to allow to occupy every free space leaving no voids, thereby producing dense concrete with proper bonding with concrete (The quoted rates to be inclusive of all materials, labours, tools & tackles, transportation, taxes etc complete) to be applied for foundation and strengthening of pier etc and as per the direction of Site-In-Charge. (The product like Ultratech/Rendroc (RGL) of FOSROC or its equivalent)	Cum	1.00	70350.00	70,350.00
4.00	PLASTERING AND PAINTING WORK				
4.01	Providing internal cement plaster 12mm thick in single coat in cement mortar 1:3 without neeru finish to concrete or brick surfaces, in all position including scaffolding and curing etc. complete.	Sqm	0.00	317.12	0.00
4.02	Providing waterproof plaster in W.C. and bath 12 mm thick for dado in cement mortar 1:3 with neat finishing, floating using waterproofing compound at the rate of 1 Kilogra. per bag of cement of approved make and manufacturer and curing etc. complete. (Excluding Tiles) (As directed by Engineer in Charge)	Sqm	0.00	420.02	0.00
4.03	Providing and applying two coats of synthetic enamel paint of approved colour to new /old structural steel work and wood work in buildings, including scaffolding if necessary, cleaning and preparing the surface (excluding primer coat) etc. complete.	Sqm	QRO	100.80	-
4.04	Providing and applying Texture plaster with finishing with texture material of approved make in 3 to 4 millimeter thickness on previously plastered surface, including Plaster Groove 6mm thickness or Tape Grooves 35 to 45 mm thickness or as required, in all position including preparing the surface, scaffolding etc. complete.	Sqm	1308.00	659.40	8,62,495.20
4.05	Providing and applying Two coats of wall care Putty on plastered surface and Ceiling and Walls to prepare surface even and smooth of approved make, etc complete. As directed by Engineer in charge	Sqm	QRO	94.50	-
4.06	Providing and applying two coats of textured synthetic paint of approved shade and quality and one coat of primer before applying textured paint including scaffolding if necessary preparing surface by thoroughly cleaning oil, grease, dirt and other materials as required, etc. complete.	Sqm	QRO	171.15	-
4.07	Providing and applying two coats of exterior acrylic emulsion paint confirming to corresponding I.S. of approved manufacture and of approved colour to the plastered surfaces including cleaning ,preparing the plaster surface, applying primer coat ,scaffolding if necessary , and watering the surface for two days etc complete.	Sqm	QRO	274.05	-
4.08	Providing and applying priming coat on concrete/ masonry/ Asbestos Cement plastered surfaces including scaffolding if necessary, preparing the surface by thoroughly cleaning oil, grease, dirt and other foreign matter and sand papering as required etc. complete.	Sqm	QRO	37.80	-
4.09	Providing and applying plastic emulsion paint of approved quality, colour and shade to old and new surfaces in two coats including scaffolding, preparing the surface. etc. complete.	Sqm	0.00	84.00	0.00

Item No.	Description	Unit	Qty.	Rate	Amount
4.10	Providing and applying two coats Apex Ultima Puranature Anti-Pollution Or equivalent approved brand, paint should decomposes organic substances and inorganic gases(NOx, VOC's, CO, SOx, formaldehydes, etc.) in presence of natural or artificial light. It contains Graphene and nanoparticles of titanium oxide. and Absorbs CO2 (4.8 Kilogram/15 l). plaster crack should be filled by Acrylic base Crack seal/Textured Crack filler, Paint has to applied on one coat of Apex Ultima Puranature Anti-Pollution Primer or Equivalent. Warranty Should be given by the Manufaturer The work should be done by the Manufacturer Recommended applicator and he should be able to furnish stage wise onsite technical reports from the concerned company technologist.	Sqm	QRO	390.60	-
4.11	Providing and fixing 450mm x 550mm size superior type Belgium mirror with 16mm dia. nickel plated towel rod etc. complete.	No	2.00	904.05	1,808.10
4.12	Providing and Laying hot applied thermoplastic road marking strip on Bituminous Surface of specified shade/ colour of 2.5 mm thick including 1.5 Refractive index reflectorizing glass beads @ 250gm/sqm .Thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC 35:2015. Initial Dry reflectivity RL shall be > 250 mcd/sqm/lux measured in the initial 7 days and sustained reflectivity RL of 100 mcd/sqm/ lux and Qd of 100 mcd/sqm/ lux measured at the end of 2 years by means of a Standard Reflectometer of Zehntner, Easylux, Delta make capable of measuring RL & QD both according to IRC 35:2015 clause 15.5. The finished surface to be level, uniform, and free from streaks and holes complete as per direction of Engineer-in-charge and in accordance with applicable specifications.(Refer MORTH Clause 803 for technical Specification and Performance for IRC 35:2015).	Sqm	20.00	699.30	13,986.00
5.00	PAVING FLOORING AND DADO				
5.01	Providing and fixing machine cut machine polished 18 mm to 20 mm thick telephone black / Amba White / Cat bary brown / RBI red / Ocean Brown granite stone for treads and risers of steps and staircases of approved colour and shade with rounded moulding and three grooved line for the treads on bed of 1:4 Cement mortar including float filling joints with neat cement slurry curing polishing and cleaning etc. complete.	Sqm	40.88	4398.82	1,79,836.42
5.02	Providing and laying vitrified mirror /glossy finish tiles having size 590 mm to 605 mm x 590 mm to 605 mm of 8 to10 mm thickness and confirming to IS.15622 -2006 (group Bla) of approved make, shade and pattern for dado and skirting in required position fixed in 1:4 cement mortar including neat cement float, filling joints, curing and clearing etc. complete	Sqm	0.00	1332.82	0.00
5.03	Providing and laying vitrified matt fininsh tiles having size 590 mm to 605 mm x to 605 mm of 8 to 10 mm thickness and confirming IS. 15622-2006 (Group Bla) of approved make, shade and pattern for flooring in required position laid on a bed of 1:4 cement morar including neat cement float, filling joints, curing and cleaning etc. complete.	Sqm	QRO	1698.22	-
5.04	Providing and laying vitrified rustic matt stone finish tiles having size 590 mm to 605 mm x 590 mm to 605 mm of 8 to 10mm thickness and confirming to IS. 15622-2006 (Group Bla) of approved make, shade and pattern for flooring in required position laid on a bed of 1:4 cement mortar including neat cement float, filling joints, curing and cleaning etc. complete.	Sqm	0.00	1875.67	0.00
5.05	Providing and laying vitrified rustic matt stone finish tiles having size 590 mm to 605 mm x 590 mm to 605 mm to 8 to 10mm thickness and confirming to IS. 15622-2006 (Group Bla) of approved make, shade and pattern for dado and skirting in required position fixed in 1:4 cement mortar including neat cement float, filling joints, curing and cleaning etc. complete.	Sqm	0.00	1954.42	0.00

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NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
5.06	Providing and fixing green marble of 18 to 20 mm thick for door frame/ dado/ window boxing etc. On C.M. 1:6 including filling joints with polymer base filler nosing / moulding the sharp edges wherever necessary, curing, etc. complete.	Sqm	QRO	2503.57	-
5.07	Providing and fixing heavy duty inter locking concrete Grey paving blocks of 60 mm thickness of having a strength of 300 Kilogram/Sq.cm. of approved quality and shape on a bed of crushed sand of 25 to 30 mm thick including skirting joints and cleaning etc. complete.	Sqm	300.00	882.00	2,64,600.00
5.08	Providing and fixing heavy duty inter locking concrete Grey paving blocks of 80 mm thickness of having a strength of 300 Kilogram/Sq.cm. of approved quality and shape on a bed of crushed sand of 25 to 30 mm thick including skirting joints and cleaning etc. complete.	Sqm	QRO	1083.60	-
5.09	Providing and fixing heavy duty inter locking concrete Coloured paving blocks of 60 mm thickness of having a strength of 300 Kilogram/Sq.cm. of approved quality and shape on a bed of crushed sand of 25 to 30 mm thick including skirting joints and cleaning etc. complete	Sqm	QRO	964.95	-
5.10	Providing and fixing heavy duty inter locking concrete Coloured paving blocks of 80 mm thickness of having a strength of 300 Kilogram/Sq.cm. of approved quality and shape on a bed of crushed sand of 25 to 30 mm thick including skirting joints and cleaning etc. complete	Sqm	QRO	1224.30	-
5.11	Providing and laying Vitrified mirror/glossy finish having decorative type of size 590 millimeter to 605 millimeter x 590 millimeter to 605 millimeter of 8 to 10 millimeter thickness (on a existing flooring) with bonding chemical and confirming to IS 15622-2006 (Group Bla) of approved make shade and pattern for flooring in required position laid on a bed of bonding chemical filling joints curing and cleaning etc . complete.	Sqm	0.00	1296.07	0.00
5.12	Providing and laying Vitrified MATT finish having decorative type of size 600 millimeter x 600 millimeter of 8 to 10 millimeter thickness (on a existing flooring) with bonding chemical and confirming to IS 15622-2006(Group Bla) of approved make shade and pattern for flooring in required position laid on a bed of bonding chemical filling joints curing and cleaning etc .complete.	Sqm	QRO	1736.02	-
5.13	Providing and laying Vitrified RUSTIC MATT STONE finish having decorative type tiles of size 600 millimeter x 600 millimeter of 8 to 10 millimeter thickness (on a existing flooring) with bonding chemical and confirming to IS 15622-2006 (Group Bla) of approved make shade and pattern for flooring in required position laid on a bed of bonding chemical filling joints curing and cleaning etc. complete.	Sqm	QRO	1867.27	-
5.14	Providing and laying Vitrified STONE EFFECT FINISH having decorative type tiles of size 590 millimeter to 605 millimeter x 590 millimeter to 605 millimeter of 8 to 10 millimeter thickness (on a existing flooring) with bonding chemical and confirming to IS 15622-2006 (Group Bla) of approved make shade and pattern for flooring in required position laid on a bed of bonding chemical filling joints curing and cleaning etc. complete.	Sqm	QRO	1913.47	-
5.15	Providing and laying telephone black / Amba White / Cadburybrown / Ruby red / Ocean Brown granite stone of 18 to 20 mm thick for door frame/ dado/ window boxing etc. On C.M. 1:6 including filling joints with polymer base filler nosing/moulding the sharp edges wherever necessary, curing, etc. complete.	Sqm	QRO	4623.52	-
5.16	Providing & fixing 20mm +/- 2mm thick both side mirror polished approved colour Granite Urinal partitions of 600 mm wide & 1550 mm high with round edges moulding and fixed in C.M. 1:2and filling joints in white cement mixed with pigment to match the colour of granite including curing, cleaning etc.complete.(Basic Rate Rs 3600/sqm)	No.	QRO	6522.00	-

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NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
6.00	SANITARY FIXTURES				
Note:-	All sanitary fixtures will be of Hindware/Rocca and C.P fixtures will be jaguar Make				
6.01	Providing and fixing white vitreous china flat back or wall corner type lipped front urinal basin of 430x260x350mm and 340x410x265mm sizes respectively with automatic flushing cistern with standard flush pipe and C.P. brass spreaders with brass unions and G.I clamps complete, including painting of fittings and brackets, cutting and making good the walls and floors wherever required :				
6.01(a)	Range of two urinal basins with 5 litre white P.V.C. automatic flushing cistern	Each	0.00	9190.00	0.00
6.02	Providing and fixing water closet squatting pan (Indian type W.C. pan) with 100mm sand cast Iron P or S trap, 10 litre low level white P.V.C. flushing cistern, including flush pipe, with manually controlled device (handle lever) conforming to IS : 7231, with all fittings and fixtures complete including cutting and making good the walls and floors wherever required :				
6.02(a)	White Vitreous china Orissa pattern W.C. pan of size 580x440mm with integral type foot rests.	Each	0.00	7810.00	0.00
6.03	Providing and fixing white vitreous china pedestal type water closet (European type W.C. pan) with seat and lid, 10 litre low level white P.V.C. flushing cistern, including flush pipe, with manually controlled device (handle lever), conforming to IS : 7231, with all fittings and fixtures complete including cutting and making good the walls and floors wherever required :				
6.03(a)	W.C. pan with ISI marked white solid plastic seat and lid	Each	0.00	8007.00	0.00
6.04	Providing and fixing wash basin with C.I. brackets, 15 mm C.P. brass pillar taps, 32 mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever required :				
6.04(a)	White Vitreous China Wash basin size 630x450 mm with a pair of 15 mm C.P. brass pillar taps.	Each	2.00	3858.00	7,716.00
6.05	Providing and fixing 600x450 mm bevelled edge mirror of superior glass (of approved quality) complete with 6 mm thick hard board ground fixed to wooden cleats with C.P. brass screws and washers complete.	Each	QRO	1919.00	-
6.06	Providing and fixing mirror of superior glass (of approved quality) and of required shape and size with plastic moulded frame of approved make and shade with 6 mm thick hard				
a	board backing Rectangular shape 1500x450 mm	Each	QRO	2770.00	-
6.07	Providing and fixing C.P. Brass two way bib cock with flange of approved quality and make.	Each	15.00	1116.00	16,740.00
6.08	Providing and fixing Health Faucet with one metre long easy flex tube in chrome finish and wall flange	Each	15.00	1324.00	19,860.00
6.09	Providing and fixing C.P. Angular stop clock with wall flange Jaquar make or equivalent continental (CAT.NO. CON-059) including necessary sockets/union nut etc. complete. Spec No. As directed by Engineer in charge Notes: The rates quoted shall include cost of necessary consumables like brass screws, CP extension nipple of approved make, dia and length, wooden plugs, white cement, sealants etc. (Make : Jaquar, Model No : CON-059 KN cop- or Equivalent)	No.	14.00	1200.00	16,800.00
6.10	Providing and fixing C.P. pillar cock long neck with aerator jaquar or equivalent make continental (CAT.NO. CON -021) including necessary sockets/union nut etc. complete. Spec No. As directed by Engineer in charge.	No.	14.00	1706.25	23,887.50
6.11	Providing and fixing JAGUAR MAKE, C.P. Towel rail 24" continental (Cat. No. ACN 1111N) including brackets, all fixtures, fittings and making good the wall wherever required etc. complete.	No.	10.00	1022.70	10,227.00

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
6.12	Providing and fixing JAQUAR MAKE, HOTELIER series Model No. 1551 Toilet Paper Holder Recessed type (S.Steel) including cutting and making good the wall wherever required etc complete	No	0.00	1690.00	0.00
6.13	Providing and fixing ISI marked make CP brass liquid soap dispensers with CP brass bracket capacity 250 ml.	No	0.00	2748.00	0.00
6.14	Providing & Fixing 100mm diameter Nahani trap Jali in steel finish with necessary fixing required to make the item well functional.	No	0.00	437.00	0.00
7.00	PLUMBING				
7.01	Providing and fixing on walls/ ceiling/ floor 15 mm dia. CPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	Rmt	QRO	279.30	-
7.02	Providing and fixing on walls/ceiling/floor 20 mm dia. CPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	Rmt	0.00	325.50	0.00
7.03	Providing and fixing on walls/ ceiling/ floor 25 mm dia. CPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	Rmt	0.00	393.75	0.00
7.04	Providing and fixing on walls/ ceiling/ floor 32 mm dia. CPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	Rmt	0.00	452.55	0.00
7.05	Providing and fixing on walls /ceiling/ floor 40 mm dia. CPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	Rmt	0.00	565.95	0.00
7.06	Providing and fixing on walls/ ceiling/ floor 50 mm dia. CPVC pipe with necessary fittings, remaking good the demolished portion etc. complete.	Rmt	0.00	778.05	0.00
7.07	Providing and fixing on walls/ceiling/floor 20 mm dia. uPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	Rmt	0.00	303.45	0.00
7.08	Providing and fixing on walls/ ceiling/ floor 25 mm dia. uPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	Rmt	0.00	372.75	0.00
7.09	Providing and fixing on walls/ ceiling/ floor 32 mm dia. uPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing	Rmt	0.00	432.60	0.00
7.10	Providing and fixing on walls /ceiling/ floor 40 mm dia. uPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	Rmt	0.00	546.00	0.00
7.11	Providing and fixing on walls/ ceiling/ floor 50 mm dia. uPVC pipe with necessary fittings, remaking good the demolished portion etc. complete.	Rmt	0.00	758.10	0.00
7.12	Providing, fixing and testing heavy quality gun metal or brass ball valve with screwed ends 20kgm class on GI or copper pipe lines (Leader/ZOLOTO make) 20 mm (3/4") dia.	No	0.00	794.00	0.00

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NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
7.13	Providing, fixing and testing heavy quality gun metal or brass ball valve with screwed ends 20kgm class on GI or copper pipe lines (Leader/ZOLOTO make) 25 mm (1") dia.	No	QRO	1088.00	-
7.14	Providing, fixing and testing heavy quality gun metal or brass ball valve with screwed ends 20kgm class on GI or copper pipe lines (Leader/ZOLOTO make) 32 mm (1 1/4") dia.	No	0.00	1582.00	0.00
7.15	Providing, fixing and testing heavy quality gun metal or brass ball valve with screwed ends 20kgm class on GI or copper pipe lines (Leader/ZOLOTO make) 40 mm (1 1/2") dia.	No	0.00	2443.00	0.00
7.16	Providing, fixing and testing heavy quality gun metal or brass ball valve with screwed ends 20kgm class on GI or copper pipe lines (Leader/ZOLOTO make) 50 mm (2") dia.	No	0.00	3227.00	0.00
7.17	Providing and fixing in position uPVC/SWR (Soil/Waste/Rain) pipe of type-B 75 mm dia. in any position including all fittings and accessories, making joints / connections water tight with solvent cement, scaffolding if necessary and making good the damages if any (excluding excavation and refilling the trenches) etc. complete as specified and directed.(All fittings and accessories like clamps,etc. should be of same brand. No separate payment shall be made for fittings and accessories).	Rmt	0.00	271.00	0.00
7.18	Providing and fixing in position uPVC/SWR (Soil/Waste/Rain) pipe of type-B 110 mm dia. in any position including all fittings and accessories, making joints / connections water tight with solvent cement, scaffolding if necessary and making good the damages if any (excluding excavation and refilling the trenches) etc. complete as specified and directed.(All fittings and accessories like clamps,etc. should be of same brand. No separate payment shall be made for fittings and accessories).	Rmt	0.00	414.00	0.00
7.19	Providing and fixing in position uPVC/SWR (Soil/Waste/Rain) pipe of type-B 160 mm dia. in any position including all fittings and accessories, making joints / connections water tight with solvent cement, scaffolding if necessary and making good the damages if any (excluding excavation and refilling the trenches) etc. complete as specified and directed.(All fittings and accessories like clamps,etc. should be of same brand. No separate payment shall be made for fittings and accessories).	Rmt	389.00	981.00	3,81,609.00
7.20	Booster Pump system (At Terrace Level) Supply, Installation, Testing And Commissioning Of Compact Self Contained Skid Mounted factory fitted & factory tested Hydropneumatic Booster Pump System As Follows: In-Line, Multisage, centrifugal pumps with SS-304 casing and impeller and SS-316 shaft, CI base & head TEFC motor (with mechanical seal) (Vendor to submit performance curves and technical catalog of the proposed model for review & information) The pump shall be selected for performance at best efficiency point. However, the pump selection shall be suitable for performance with set point @ + 20% of the rated head. Flow rate : As described below Head : As described below Mtr Purpose : Domestic/ Flush/ DM/ Drinking water supply External Pump mounted or wall mounted microprocessor PID controller and frequency inverter integrated in a single body or as separate components 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 protocol	SET	1.00	420000.00	420000.00

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NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
	through RS485 port (Variable Frequency Drive). System should be capable to compensate for frictional losses at lower flows. All alarms should be displayed in the controller. System should be equipped with dry running protection. Quantity : 1 Nos. Complete (Skid mounted wall mounted / floor mounted) electrical control panel comprising of all accessories such as PLCs, pressure switches, pressure transducers, control wiring and any other necessary imports etc. (list to be provided by the vendor). Panel Should be with IP 54 Class of protection. Precharged diaphragm pressure vessel with food grade membrane, charging connection, connected to outlet header with necessary flanges, gaskets, isolating valves, nuts/bolts etc complete. Set of accessories such as pressure switches, pressure transducers, inter connecting power and control cabling etc. complete Including accessories like NRVs, Y Stainer, isolating valves, SS-304 (non-Magnetic) suction and delivery header, pressure gauge, MS base frame (Synthetic enamel painted over a coat of primer) etc. Booster Pump System (1 Set = 1W + 1S) 280 LPM @ 18 MTR (Studio 16 & Hospital)				
8.00	DOORS AND WINDOWS				
8.01	Solid Core Flush door Single leaf Providing and fixing factory made solid core flush door in single leaf 35 mm thick, decorative types, of exterior grade, as per detailed drawings, conforming to I.S.:2202 - 1962 (Revised) with approved face veneers on both faces with/without glazing and venetians in the positions shown on the drawings or as directed, all necessary beads, moulding and lipping, holdfasts, mat finish stainless steel fixtures fastenings, finishing with french-polish/waxing complete. (without door frame).(Sample to be got approved from Ex.Engineer before use) Commercial Hard Wood shutter	Sqm	0.00	2887.50	0.00
8.02	Solid Core Flush door Double leaf Providing and fixing factory made solid core flush door shutters in double leaves 35mm thick,decorative type of exterior grade, as per detailed drawings, conforming to I.S.: 2202 – 1966 (Revised) including approved face veneers on both sides, without glazing and venetians including mat finish stainless steel fixtures and fastening, stoppers and finishing with french polishing etc. (Excluding door frame)(Sample to be got approved from Ex. Engineer before use) Commercial Hard Wood shutter	Sqm	QRO	3255.00	-
8.03	Providing and fixing in position. (as per I.S.1868 / 1982) Aluminium sliding window of two tracks with rectangular pipe having overall dimension 63.50 x 38.10 x 1.02 mm at weight 0.547 Kilogram/One Running Metre. and window frame bottom track section 61.85 x 31.75 x 1.20 mm at weight 0.695 Kilogram/One Running Metre. Top and side track section 61.85 x 31.75 x 1.30 mm at weight 0.659 Kilogram/One Running Metre. The shutter should be of bearing bottom 40 x 18 x 1.25 mm at weight 0.417 Kilogram/One Running Metre. Inter locking section 40 x 18 x 1.10 mm at weight 0.469 Kilogram/One Running Metre. And handle section 40 x 18 x 1.25 mm at weight 0.417 Kilogram/One Running Metre. and top section 40 x 18 x 1.25 mm at weight 0.417 Kilogram/Running metre. As per detailed drawings and as directed by Engineer in charge with all necessary Aluminium sections fixtures and fastenings such as roller bearing in nylon casting and self locking catch fitted in vertical section of shutter including 5 mm thick plain glass with all required screws and nuts etc, complete. With colour Anodising with box.	Sqm	QRO	5752.95	-

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DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
8.04	Providing and fixing in position powder coated aluminium louvered windows / ventilator of various sizes with powder coating as per detailed drawing and specifications including aluminium frames 80 x 38 mm x 1.22 mm box type, 5 mm thick sheet glass louvers, of approved quality etc. complete.	Sqm	0.00	3640.35	0.00
9.00	INTERIOR WORK				
9.01	Providing and fixing in position Gypsum board false ceiling with 12.5 mm thick Gypsum boards, screwed/fixed to the under structure of suspended G.I. Grid constructed and suspended from the main ceiling consisting of ceiling sections of size 25 x 50 mm maximum center to center distance of 600 milimetre perimeter channel and intermediate channels at maximum center to center distance 1200 milimetre galvanized grid should be fixed to reinforced cement concrete slab. The gypsum board should be fixed to galvanized iron grid with necessary screws. The boards should be taped and filled from underside to give smooth, seamless ceiling. The rate should include necessary additional ceiling sections and intermediate channels. Additional intermediate channels should be fixed to strap hangers for additional support to prevent strapping at every 1200 milimetre item to be completed in all respect including necessary sleeves for ducts finishing of joints cut outs, painting including labour, material, lifts etc. all complete.	Sqm	QRO	1857.45	-
9.02	PRIVIDING AND FIXING MODULAR ACOUCTICAL WOODEN WALL PANELLING: Of nominal width 100 / 150mm, having 80mm wide panel with 20mm reveal having a thickness of 15mm thickness and length 2400 mm. The panel shall be made of a Moisture resistant fibre board substrate having a minimum density of 595 Kg/m3 with a laminated facing as per the approved shade (Portland Maple, Sea Beech, Siam Wood & Mystique Walnut) and a melamine balancing layer on the reverse side. The panel shall have 0.7mm PVC edge banding along the length side with a similar finish as that of the face. The back of the panel shall have a black acoustic felt to cover the reveal of 20mm to attain an NRC of 0.4 for 150mm. / 0.5 for 100mm. module (Average value of Absorption Co-efficient readings taken at 250 Hz, 500 Hz, 1000 Hz and 2000 Hz) as per ASTM C423. The panels shall provide a Humidity Resistance (RH) of 70% with camber limit less than 1mm/1000mm and bow less than 1mm/300mm. The back of the panels shall be profile-grooved to receive 3600mm special main beam carrier with integrated factory fitted clips for installation. SUSPENSION: The panels shall be upward mounted on 24 mm wide T - section flanges having rotary stitching along the length of the beam with a web height of 43mm. The Main Beam shall have integrated (factory fitted) locking clips installed at 100 / 150mm centre to centre distance. The deflection loading of the main beam tested as per ASTM C635 (Deflection limit less than L/360) shall be at least 21.4kg/m. The end details of the main beam shall be made of pre hardened steel and fixed to the ends with 3 point fixing. All main beam to main beam connection shall have a pull out strength of more than 100kg. The T Sections shall be made of hot dipped galvanized steel of 100 gsm as per IS 277 (2003) and pre-painted steel with baked polyester paint with OT bending capability. Installation should be carried out as per Manufacturer recommended procedure. The grid shall be installed with suspension system of Manufacturer make.	Sqm	QRO	11428.20	-
9.2(A)	Removing existing soundproofing panels along with ensulation materials to clean the surface of walls, stacking them at the designated place and dispose the same as directed.	Sqm	4327.00	28.00	1,21,156.00

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NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
9.03	Providing and fixing 15 mm thick eco-friendly densified edge calcium silicate false ceiling of approved texture of size 595mm x 595mm in true horizontal level, suspended on interlocking metal grid of hot dipped galvanized steel sections (galvanising at @12 gm/sq.m including both sides) consisting of main T runner suitably spaced at joints to get required length and size 24X38mm. made from 0.33mm thick(minimum) sheet, spaced 1200mm center to center and cross T of size 24X28mm made of 0.33mm thick(minimum) sheet to be interlocked at the middle of the 1200x600 mm panel to form the grid of size 600x600mm resting on periphery walls/partitions on a perimeter wall angle precoated steel of size 24x24x3000 made of 0.4 mm thick (minimum) sheet with the help of all plugs at 450mm and laying 15 mm thick densified edges calcium silicate ceiling tiles of approved texture (spintone/cosmos/hexa) in the grid, including light fittings , fixtures , smoke detectors etc., wherever required. Main T runners suspended from ceiling with using G.I. slotted cleats of size 25x35x1.6 mm fixed to ceiling using 12.5mm dia. And 50mm long dash fasteners, 4mm G.I. adjustable rods with galvanized steel levels clips of size 85x30x0.8mm, spaced at 1200mm center to center along main T bottom exposed with 24mm of all T-sections shall be prepainted with polyester baked paint, for all heights, as per specifications, drawings etc. complete.(currently this item should be used only for VIP cabins)	Sqm	0.00	2146.20	0.00
9.04	Removing existing soundproofing panels along with ensulation materials to clean the surface of walls, stacking them at the designated place and dispose the same as directed	Sqm	4327.00	28.00	1,21,156.00
9.05	Providing & Fixing False Ceiling comprising of following material including fixing in galvanized steel sections with white color coated cap comprised of main tee 34 mm x 24 mm (heavy duty as per ASTM C - 635 standard tested) with pre-punched cross tee slots (at every 100 mm c/c) to be placed at 1200 mm c/c, suspended with 4 mm GI (TATA MAKE) straightened wire at every 1.2 mtr, other end of the wire provided with GI J hook & nut. All the false ceiling panels around the perimeter of the false ceiling & around the RCC columns shall rest on the perimeter G.I. molding of size 19 mm x 19 mm which is fixed to the walls with help of rawal plug & GI screw at the same level as false ceiling. The cross tee of 1200 mm length (26 mm x 24 mm wide Heavy duty) shall be locked in main tee at every 600 mm c/c. to form grid of 600 x 1200 mm. Further 600 mm long tee need to be locked in to 1200 mm tee to make the final grid of 600 mm X 600 mm, including making provision for cutouts and / or trap door for electrical and mechanical systems, etc complete as directed by Engineer In charge. With Armstrong or equivalent Orcal Lay in metal ceiling System consisting of 600x600mm Lay in tiles of pre coated galvanised steel in 0.5/0.4 mm thickness in white colour with standard perforation of 2.5mm dia & open area of 16%. The back of the tile should have black acoustical fleece with NRC of 0.70 & CAC 36 with life time warrantee against sag in module size 595 mm X 595 mm at required height above FFL	Sqm	4327.00	1924.00	83,25,148.00

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
10.00	REBARING AND ANCHORING BOLTS				
10.01	Providing and fixing the Chemical Anchor Fasteners as specified below of Hilti Make or equivalent confirming to IS 1367 (Part 3) at required locations and level including drilling the hole, cleaning with blow pump and anchoring the bolt with chemical as per manufacturers specifications etc. complete as directed by Engineer In Charge.				
10.01(a)	M12 x 110 foil capsule (HVU) & M12 x 160 Rod	Nos	638.40	327.00	2,08,756.80
10.01(b)	M16 x 125 foil capsule (HVU) & M16 x 190 Rod	Nos	957.60	433.00	4,14,640.80
11.00	ELEVATION TREATMENT				
11.01	Designing, providing & Fixing (at all levels) in position factory made precast Glass fiber reinforced polymer (GFRP) and structural reinforcing as required as per approved manufacture's specification and as per approved drawigns. The thickness of GFRP panel should not be less than 5 mm with minimum 5 mm thick GRP pads acting as inbuilt stifners, Fire resistant Resin of GP grade shall be used of approved make. Colour and texture should be approved by Engineer incharge. Fixing of Including making frame over the Primary main strcutre using MS section. GFRP panel on primary structure shall be done by fry claddign method with the help of SS screw fixtures, MS angle cleats, fissurs plug and Dowel pin etc. in porper alignment, line and level as per the approved drawing, Finishing with GFRP powder filling the joints with paintable silicon sealant neatly between GRC panel and primary strcutre to provide one piece look includign mouldign and cornice at junction of column and beams as per approved drawing, includign necessary MS fabrication work to support GFRP strcuture, necessary scaffolding at all levels and staging etc. Including painting with one coat of primer and minimum two coats of paint in duco finished with one protective coat of lacker, complete as per manufactures specification.The rate shall include all necessary scaffolding, anchoring/bolting and necessary civil/fabrication work as per Standard specificationsas per approved design and as directed by Engineer-in-charge. GFRP decorative emblem with details shall be as per drawing and carvings as shown in 3 dimesion upto a thickness of 150 mm with scroll designs, floral designs, dentals, flutings etc., Item to include checking all surfaces for proper line and level etc. complete. Item includes preparing upto 5 samples for the Architects approval. Item to include making of the clay model and mould for the decorative cornice and supply of the decorative cornice as per approved sample executed in fiber glass material.	Sqm	2815.00	11000.00	3,09,65,000.00
12.00	WATERPROOFING				
12.01	Providing water proof bedding for flooring of Bath and WC 25 mm thick in C.M. 1:3 including using approved water proofing compound in specified proportion as per manufacturers specifications for per bag of cement including leveling, curing and covering 10 years guarantee on court fee stamp paper of Rs.500/- including ponding test etc.complete. As directed by Engineer in charge.	Sqm	QRO	469.72	-
12.02	Providing, fabricating & fixing in position S.S. 304 grade pipe railing for staircase consisting of 18 gauge 50 mm dia. S.S.pipe as top rail,18 gauge 40 mm dia S.S. pipe as verticals, 18 gauge 25 mm dia as secondary rails, including fixing the verticals to the staircase pardi by means of base plate with socket & anchor fasteners,grinding the welded portion smooth,buffing, protecting the railing members by means of wrappers during construction etc. complete as directed by the Engineer in charge	RMT	QRO	3036.60	-

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
12.03	Providing and fabricating structural steel work in rolled sections like joists, channels, angles, tees etc. as per detailed design and drawings or as directed including cutting, fabricating, hoisting, erecting, fixing in position making riveted / bolted /welded connections without connecting plates, braces etc. and including one coat of anticorrosive paint and over it two coats of oil painting of approved quality and shade etc. complete.	Mt	67.16	106936.20	71,81,300.51
12.04	Providing & Fixing 15 mm thick solid white acrylic laser cut out Logo etc complet . (as per client / Architectural approval)	Sq.In	QRO	27.00	-
12.05	Directional signage Design, supply, fabrication and fixing acrylic multilingual Braille (raised dots) directional signboards of size 6" x 9" designed as per accessibility standards and having 4mm thick acrylic base plate with Upper Case San Serif words made of white acrylic non glare cut out letters of height 15mm raised not less than 0.8mm above base plate and the equivalent word written in Hindi with Devnagri non glare acrylic letters of height 15mm raised not less than 0.8mm above base plate and having a non glare acrylic cut arrow pointing in the required direction. Each signboard to be fixed as per manufacturers specifications on the wall at the approved location and at a height of 1200mm from FFL and as per the directions by the engineer in charge.	No.	3.00	1714.65	5,143.95
12.06	Providing and casting insitu or precast tapering R.C.C. M-20 Barrier type Kerb without gutter (as per IRC 861983) embedded 125 mm below ground level over M-10 PCC finished neatly with C.M. 1:2, setting the same in C.M. 1:2, including the required excavation in any strata and removing the excavated stuff any where in city and redoing the surface as specified and directed by Engineering In-charge. Using Concrete Batching and Mixing Plant.	Rmt	30.00	581.70	17,451.00
12.07	Disposal of building rubbish / malba / similar unserviceable, dismantled or waste materials by mechanical means including loading, transporting, unloading to approved municipal dumping ground or as approved by Engineer-in-charge, beyond 50 m initial lead, for all loads including all lifts involved. For 25 Km Lead	Cum	43.27	616.35	26,669.41
13.00	FURNITURE				
13.01	Stool for Lab and Class-IV Providing and fixing 4 legged Lab stool, Legs made of 16 Guage 45 MM Outer dimension MS Pipe, Duly painted, With a 304 Grade Stainless steel 12 inch wide seat with a 1 inch collar, Height adjustment via a screw. as per design and drawing and instructions of Engineer in charge.	No.	QRO	2747.85	-
13.02	Providing and supplying center pivot, revolving, Mid back chair Depth-45cm, width-50cm, height- 105cm to 115cm & seat height- 45cm to 55cm. (+/- 2cm) with five legged metal / moulded nylon basewith push back arrangement. Chairs shall have high density moulded,360 revolving on suitable base, gas lift , heavy duty twin wheel castors to take min 80 kg/castor with two -pneumatic height adjustment one piece moulded type polypropylene armrest etc. complete. The chair shall be provided with approved tapestry upto Rs 300/m with necessary beading wherever required. All metal work shall be Epoxy Polyester Powder Coated and as directed by Architect in charge. The over all appearance of the product shall be as per photograph. All metal work shall be Epoxy Polyester Powder Coated and as directed by Architect in charge.	No	QRO	12500.00	-

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
13.03	Providing and Supplying Reception table of overall size 1650 X 750X 750 mm made out of 19 mm thick Marine ply (IS 710 : 2010) top Sides and apron having Top and bottom horizontal patta. The table shall be externally and internally finished with 4mm thick group match veneer pattern with grooves including necessary lipping moulding and hardware. 5 mm thick toughened glass modesty shall be provided with 50 X 30 mm BTC wood frame etc. complete. Antitermite treatment to marine ply and all wooden accessories on both sides for full faces before the joineries melamine polish on french polish base coat, hardware as per drawings. etc. all complete as per Architects Drawing.	No	QRO	40512.00	-
13.04	Providing table top of required size fixed at a standard table top height of up to 750mm min. (including table top thickness) to Modular partition. Table top shall be made of 25mm thick Marine ply (IS 710 : 2010) , FIRE RETARDENT laminate on all sides / surfaces. All edges of the work surface shall be provided with machine pressed PVC edge banding of 2mm thickness etc. complete. Table top to be principally mounted from the partition frame with suitable MS powder coated brackets which should be integrated into the partition frame etc. complete.				
a	900 X 450	No	QRO	2106.00	-
b	900 X 600	No	QRO	2808.00	-
c	1050 X 450	No	QRO	2457.00	-
d	1050 X 600	No	QRO	3276.00	-
e	1200 X 450	No	QRO	2808.00	-
f	1200 X 600	No	0.00	3744.00	0.00
g	1350 X 600	No	QRO	4212.00	-
h	1500 X 600	No	QRO	4680.00	-
13.05	Providing table top of required size fixed at a standard table top height of upto 750mm min (including table top thickness). Table top shall be made of 25mm thick Marine ply (IS 710 : 2010), FIRE RETARDENT laminate on all sides/ surfaces. All edges of the work surface shall be provided with machine pressed PVC edge banding of 2mm thickness etc. complete. Table top to be principally mounted from the partition frame with suitable MS powder coated brackets which should be integrated into the partition frame. Gable End Supports of approved profile and design between tables consisting of 18mm Marine ply (IS 710 : 2010) panels duly edge bound (to be integrated with the partition. Adjustable levellers to be provided to supports.) etc. complete.				
a	1500 X 600 & side 900 x 600	No	QRO	13608.00	-
13.06	Providing and positioning bunk bed made out of approved colour, powder coated, M.S. (IS 513:2008) pipe frame and angle supports. Two end frames shall be made out of 16 gauge and 40 mm dia M.S pipes as vertical supports and 16 gauge 25 mm dia M.S pipes along with 40 x 40 x 6 mm M.S angle lateral frame to receive 12mm thk marine grade ply base for 100 mm thk ,100 density coir mattress etc. complete. Edges of the base ply shall be sealed with 6mm thk T.W lipping. Two nos of 25 mm dia 16 gauge pipe supports shall be provided to support both the base ply and ladder and with necessary Nylon bushers for pipe ends touching to floor and with approved colour powder coating and complete as per the instructions of the Architect or Engineer in charge. Note: This item shall be made in knock down type of arrangement.	No	0.00	66018.00	0.00
13.07	Stitching of Curtains for windows and doors and fixing the same with approved fabric and buttons, accessories, etc complete.	Sqm	QRO	206.00	-
13.15	Providing and supplying Modular CUPBOARD made up of required size. Top made of 25mm Marine ply (IS 710 : 2010), having post formed decorative laminate of 0.8mm on top and FIRE RETARDENT laminate on all sides /				

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
	surfaces etc. complete. Sides, Sides in 25mm thk Marine ply (IS 710: 2010). Adjustable shelf made in 25mm thk Marine ply (IS 710: 2010) placed on standard shelf pins etc. complete. Storage Back made of 9mm thick Marine ply (IS 710: 2010) etc. Sides, Shutters, Bottom, adjustable shelf, finished 2mm thick machine pressed PVC Edge banding of required size etc. Hardware set to include 110 degree opening self- closing box hinges, Counter Sunk screw, S.S.Brush Finished, Handles L' Clips Selves support etc. complete. Multipurpose lock, Levelling Bolt with inserts etc. complete. Aluminium furniture feet – Round tube, diameter 40 mm with 100 mm height with suitable finish to match handles" Shape SS Brush finished handles as indicated in the drawing, suitable locking provision etc. complete.				
a	900 x 450 x 1200 - 2 SHELVES	No	0.00	16065.00	0.00
b	900 x 450 x 1800 - 4 SHELVES	No	0.00	23814.00	0.00
14.00	HORTICULTURE WORK				
14.01	Planting Shrubbery on Soft/Hard surface: Filling Red Hill Earth & Cow Dung Manure in the excavated area mixing in 2:1 proportion, watering, weeding after every watering before planting the shrub, leveling, providing and planting well grown, healthy, bushy shrubs including transport and unloading as per specified variety and sizes, planting at desired location and specified distances, maintaining for 1 month after completion of plantation and replacement of casualties till 1 month.				
14.01(a)	Golden Duranta Bag size (10" x 10") Height Of Plant (30 cm to 45cm)	No	100.00	35.00	3,500.00
14.01(b)	Fox tail palm Bag size (10" x 12") Height Of Plant (3 to 4 ft..)	No	QRO	210.00	-
14.02	POTTED PLANTS: Providing and displaying a combination of seasonal flower plants and indoor plants (minimum ht. 30 cm) developed fresh and healthy leaves in plastic pot to the satisfaction of client/ Architect. Scope includes adding good suitable plants with soil, new pots, garden cleaning, pots neatly placed in position, carrying of waste mulch, insert new garden soil with compost mixed, addition of cocopeat to hold moisture, all general garden care service. The period of the contract shall be six months. Plants will be property of owner after contract period. Activities included in the scope of work shall include strumming, laying, sweeping, watering, weeding, applying fertilizers, pesticides, planting trees/plants, cleaning and waste disposal. The required consumables for the service for the contract period 6 months shall include fertilizers, pesticides, seeds, good earth, plants/trees- flower, foliage, herb, shrub, bamboo etc., machinery, pots/container – plastic pots 12 inch dia. size. The service provider will quote cost inclusive of scope and selected consumables. List of approved plants and specification of plants is enclosed as under.				
14.02 (a)	Bird of Paradise Potted 3-4ft height	No	7.00	338.00	2,366.00
14.02 (b)	Areca Palm Potted 3-4ft height	No	7.00	338.00	2,366.00
14.02 (c)	Bougainvillea Potted 3-4ft height	No		238.00	0.00
14.02 (d)	Coleus potted 3-4ft height	No	7.00	188.00	1,316.00
14.02 (e)	Catharanthus– Pink and white Flower 3-4ft height	No	7.00	173.00	1,211.00
		Total - Rs.			5,22,31,537.86
		Say - Rs.			5,22,31,538.00
A2	Repair Work for existing Structure				
15.00	STRUCTURAL REPAIR				
15.01	Repairing of honey combed or spilling area by chipping out the damaged spalled or honey combed portion of concrete upto rusted rebars, cleaning of all rust, scale and loose materials, scaffolding, compressed air machinery etc. complete.(item includes use of air compressor, chipping machine and scaffolding for height 8 to 10 meter)	Sqm	864.00	833.70	7,20,316.80

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

15.02	Removing corrosion of steel reinforcement by mechanical means like wire brushing, chipping to remove loose rust and then applying rust removal solution by using brush application, leaving the surface for at least 15 to 30 minutes, then removing loose materials by scrubbing or with brush. After detachment of loose scales reddish rusted surface is still left exposed, this has to be retreated or as per approved manufacturers specifications. (Note:- Consider surface area of concrete for payment)	Sqm	864.00	46.00	39,744.00
15.03	Anticorrosive treatment to expose reinforcement in two coats with time interval of minimum 4 hours between each coat. The application shall be done by brush.	Sqm	864.00	595.35	5,14,382.40
15.04	Providing and fixing in position TMT-FE-500 bar reinforcement of various diameters for R.C.C. pile caps, footings, foundations, slabs, beams columns, canopies, staircase, newels, chajjas, lintels pardis, copings, fins, arches etc. as per detailed designs, drawings and schedules.including cutting, bending, hooking the bars, binding with wires or tack welding and supporting as required complete.	MT	16.00	94188.15	15,07,010.40
15.05	Repairing to the existing RCC structural members (vertical or horizontal) using ready mix Polymer Modified Mortar (Fibre reinforced structural grade repair mortar) of approved brand where the thickness of repair is upto 15 mm. It can be used for carrying out extensive repairs to beams, columns, slab, and other structural elements, repairing of structural members subjected to repetitive loading for strengthening. Procedure for carrying out repair Polymer Modified Mortar – Surface preparation- (separate payment shall be made) All loose traces of concrete or mortar, dust, grease oil, etc. must be removed. Damaged or contaminated concrete shall be removed to obtain a keyed aggregate exposed surface. Non-impact/ vibrating cleaning methods, e.g. grit or high pressure water blasting are recommended. Clean all exposed reinforcement to a minimum grade of Sa 2 according to ISO 8501-1 / ISO 2944-4. Ensure all visible portions of the reinforcing bar is clean. Where reinforcing bars are corroded, cut back the concrete around the reinforcing bars, Grit blast to remove corrosion products from around reinforcing bars and coat with approved epoxy coating for corrosion protection or any other protective coating as recommended by the Structural Engineer to protect from corrosion. Replace the affected part of rebar if the diameter after grit blasting is found reduced by more than 20% of the original diameter on the advice of the structural engineer responsible for the works. Bond Coat- (separate payment shall be made only for bond coat used for old surface to new surface) Providing & applying One coat of structural grade epoxy bond coat by brush conforming to ASTM-C-882-87 to the prepared concrete surface to be repaired / strengthened and repairing with PMM shall be done when the surface is tacky. Mixing - Only full bags are mixed. Damaged or opened bags should not be used. Mix the ready-mix Polymer Modified Mortar in a forced action pan mixer, or with a helical paddle attached to a low speed (300-600rpm) mixer for 3 minutes until a lump free, thixotropic consistency is achieved. Only use clean water. Mixing water needed: 3.75 to 4.25 litres per 25kg bag or as recommended by the Manufacturer of Polymer Modified Mortar. Allow the mortar to rest for 2 - 3 minutes and then remix briefly before pouring into formwork. If temperature more than 40°C then use chilled water for mixing.	Sqm	90.00	3063.00	2,75,670.00

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
	Mortar application- The minimum temperatures must be maintained during application and for at least 24 hours thereafter for optimum curing of the product. The prepared substrate should be presoaked, preferably for 24 hours, but at least 2 hours before applying Polymer Modified Mortar. The surface must be saturated surface dry, but without standing water. Polymer Modified Mortar can be spray- or hand-applied. Apply mixed product directly to the prepared damp substrate, or wet on wet onto the primed surface. Spraying the material with the necessary pressure will ensure good adhesion of the material. A thin scrape coat or contact layer before building up to the required thickness, wet on wet, will improve adhesion especially in case of hand application. Apply to the desired layer thickness upto 15 mm and level using a screeding bar, trowel or wooden board. Smoothing with a trowel or finishing by float or sponge can be done as soon as the mortar has begun to stiffen. Protective coatings Subsequent coatings of any anticarbonation barriers or silane impregnations should be applied if recommended by the Structural Engineer. Plaster- (No separate payment shall be made) The repaired surface shall be matched to the surrounding surface by providing required thickness of plaster internal or external plaster. Curing Minimum 7 days curing shall be done to the newly repaired area using any suitable method. Required Compressive strength (ASTM C109 7cm cube) Ready Mix Polymer Modified Mortar used on site shall be sent for testing of compressive strength and minimum strength required to be achieved is as follows – 1 Day-15 MPa, 3 Day-25 MPa, 7 Day-35 MPa, 28 Day-45 MPa.				
15.06	Repairing to the existing RCC structural members (vertical or horizontal) using ready mix Polymer Modified Mortar (Fibre reinforced structural grade repair mortar) of approved brand where the thickness of repair is upto 30 mm in two layers. It can be used for carrying out extensive repairs to beams, columns, slab, and other structural elements, repairing of structural members subjected to repetitive loading for strengthening. Procedure for carrying out repair Polymer Modified Mortar – Surface preparation- (separate payment shall be made) All loose traces of concrete or mortar, dust, grease oil, etc. must be removed. Damaged or contaminated concrete shall be removed to obtain a keyed aggregate exposed surface. Non-impact/ vibrating cleaning methods, e.g. grit or high pressure water blasting are recommended. Clean all exposed reinforcement to a minimum grade of Sa 2 according to ISO 8501-1 / ISO 2944-4. Ensure all visible portions of the reinforcing bar is clean. Where reinforcing bars are corroded, cut back the concrete around the reinforcing bars, Grit blast to remove corrosion products from around reinforcing bars and coat with approved epoxy coating for corrosion protection or any other protective coating as recommended by the Structural Engineer to protect from corrosion. Replace the affected part of rebar if the diameter after grit blasting is found reduced by more than 20% of the original diameter on the advice of the structural engineer responsible for the works. Bond Coat- (separate payment shall be made only for bond coat used for old surface to new surface) Providing & applying One coat of structural grade epoxy bond coat by brush conforming to ASTM-C-882-87 to the prepared concrete surface to be repaired / strengthened and repairing with PMM shall be done when the surface is tacky.	Kg	155.00	5866.00	9,09,230.00

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
	Mixing - Only full bags are mixed. Damaged or opened bags should not be used. Mix the ready-mix Polymer Modified Mortar in a forced action pan mixer, or with a helical paddle attached to a low speed (300-600rpm) mixer for 3 minutes until a lump free, thixotropic consistency is achieved. Only use clean water. Mixing water needed: 3.75 to 4.25 litres per 25kg bag or as recommended by the Manufacturer of Polymer Modified Mortar. Allow the mortar to rest for 2 - 3 minutes and then remix briefly before pouring into formwork. If temperature more than 40°C then use chilled water for mixing. Mortar application- The minimum temperatures must be maintained during application and for at least 24 hours thereafter for optimum curing of the product. The prepared substrate should be presoaked, preferably for 24 hours, but at least 2 hours before applying Polymer Modified Mortar. The surface must be saturated surface dry, but without standing water. Polymer Modified Mortar can be spray- or hand-applied. Apply mixed product directly to the prepared damp substrate, or wet on wet onto the primed surface. Spraying the material with the necessary pressure will ensure good adhesion of the material. A thin scrape coat or contact layer before building up to the required thickness, wet on wet, will improve adhesion especially in case of hand application. Apply to the desired layer thickness upto 15 mm and level using a screeding bar, trowel or wooden board. Smoothing with a trowel or finishing by float or sponge can be done as soon as the mortar has begun to stiffen. Protective coatings Subsequent coatings of any anticarbonation barriers or silane impregnations should be applied if recommended by the Structural Engineer. Plaster- (No separate payment shall be made) The repaired surface shall be matched to the surrounding surface by providing required thickness of plaster internal or external plaster. Curing Minimum 7 days curing shall be done to the newly repaired area using any suitable method. Required Compressive strength (ASTM C109 7cm cube) Ready Mix Polymer Modified Mortar used on site shall be sent for testing of compressive strength and minimum strength required to be achieved is as follows – 1 Day-15 MPa, 3 Day-25 MPa, 7 Day-35 MPa, 28 Day-45 MPa.				
15.06(A)	Providing and applying epoxy mortar for repairs to cracked portions of RCC columns, piers, beams, girders, diaphragms, slabs, parapets etc. including chipping the loose cracked concrete, cleaning the surface and removing the rust thoroughly and completely by means of wire brushes, sand blasting and washing with water etc. rebuilding the section by first applying one coat of epoxy primer coat of araldite / GY 257 and hardener HY840 in 100:50 proportion by weight, applying epoxy mortar prepared by mixing araldite, hardener and quartzite sand in 100:50:900 proportion by weight in required shape and architectural finishes, if any, finishing the surface smooth including applying a seal coat of araldite and hardener in 100:50 proportion by weight with stiff nylon bristle brush etc. complete as specified as directed.	Kg	500.00	459.00	2,29,500.00

15.08	Repairing to the existing RCC structural members (vertical or horizontal) using ready mix Micro Concrete of approved brand where the thickness of repair is more than 30 mm and upto 115 mm. It can be used for carrying out extensive repairs to beams, columns and other structural elements, repairing of structural members subjected to repetitive loading & for Jacketing of beams, columns and other structural elements for strengthening. Procedure for carrying out repairing/jacketing using ready mix micro concrete- Surface preparation- (separate payment shall be made) All loose traces of concrete or mortar, dust, grease oil, etc. must be removed. Damaged or contaminated concrete shall be removed to obtain a keyed aggregate exposed surface. Non-impact/ vibrating cleaning methods, e.g. grit or high pressure water blasting are recommended. Cut the edges of the repair vertically to a minimum depth of 20 mm. Clean all exposed reinforcement to a minimum grade of Sa 2 according to ISO 8501-1 / ISO 2944-4. Ensure back of reinforcing bar is also clean. Where reinforcing bars are corroded,	Kg	70251.00	41.00	28,80,291.00
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CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
	cut back the concrete to at least 20mm behind the reinforcing bars and coat old and new with approved epoxy coating for corrosion protection Water Powder ration Grit blast around the reinforcing bars to remove corrosion products or any other method recommended by Engineer In charge or Structural Consultant. Replace the affected part of reinforcing bar if the diameter after grit blasting is found reduced by more than 20% of the original diameter on the advice of the structural engineer responsible for the works. Bond Coat- (separate payment shall be made) Providing & applying One coat of structural grade epoxy bond coat by brush conforming to ASTM-C-882-87 to the prepared concrete surface to be repaired / strengthened and micro concreting pouring shall be done when the surface is tacky. Formwork – (No separate payment shall be made) The forms must be of good quality, treated with a chemical release agent for smooth release, provided with water drain holes, strong and well braced to withstand the fluid pressure of the mortar until it hardens. Mixing - Only full bags are mixed. Damaged or opened bags should not be used. Mix the ready mix Micro Concrete in a forced action pan mixer, or with a helical paddle attached to a low speed (300-600rpm) mixer for 3 minutes until a lump free, flowable consistency is achieved. Only use clean water. Mixing water needed: 3.25 to 3.75 litres per 25kg bag or as recommended by the Manufacturer of Micro Concrete. Allow the mortar to rest for 2 - 3 minutes and then remix briefly before pouring into formwork. If temperature more than 40°C then use chilled water for mixing. Mortar application- The minimum temperatures must be maintained during application and for at least 24 hours thereafter for optimum curing of the product. The prepared substrate should be presoaked, preferably for 24 hours, but at least 2 hours before applying Ready Mix Micro Concrete ensure all water is removed from formwork prior to installation and formwork is resealed. Ready Mix Micro Concrete should be pumped or poured into the prepared formwork until the void is filled. Pumping is recommended for larger pours. Do not vibrate Ready Mix Micro Concrete as it could lead to segregation. The formwork should be removed after 1-3 days and a curing compound applied. If subsequent coats are to be applied the use of clear polythene is recommended for the first three days after removal of formwork. For repairs beyond 80mm to 100mm in thickness, extend Ready Mix Micro Concrete with up to 25kg of 5-12mm sized washed, saturated surface-dry (SSD), graded low absorption, high density aggregates. Protective coatings- (separate payment shall be made) Subsequent coatings of any anticarbonation barriers or silane impregnations should be applied if recommend by the Structural Engineer. Curing - Minimum 7 days curing shall be done to the newly repaired/jacketed area using any suitable method. Required Compressive strength (ASTM C109 7cm cube) Ready Mix Micro Concrete used on site shall be sent for testing of compressive strength and minimum strength required to be achieved is as follows – 1 Day-15 MPa, 3 Day-25 MPa, 7 Day-35 MPa, 28 Day-40 MPa. Note- Payment is to be made by weight premixed of micro concrete product consumed as per site register records.				

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
15.09	Providing and laying insitu / ready mix M35 grade RCC jacketing work around the existing piers of bridges etc. complete. (with fully automatic micro processor based PLC with SCADA enabled concrete batch mix plant / pan mixer with fine aggregates of required specifications (VSI sand finely washed etc), height of 8 to 10 meter).	Sqm	87.00	8986.79	7,81,850.39
15.10	Providing & applying structural grade epoxy approved bond coat prior to application of any type of mortar confirming to IS codes or equivalent to ensure bond between old concrete & new concrete by brush application etc complete.	Sqm	864.00	774.90	6,69,513.60
15.11	Sealing of cracks/porous concrete by injection process through nipples/Grouting complete as per Technical specification Cement Grout	Kg	275.00	261.00	71,775.00
15.12	Providing Grouting of nozzles with Low Viscosity Epoxy grout including material, labour complete in all respect.	Kg	15.00	1741.95	26,129.25
15.13	Providing and inserting nipples with approved fixing compound after drilling holes for grouting as per Technical specifications including subsequent cutting/removal and sealing of the hole as necessary of nipples after completion of grouting with Cement/Epoxy	Each	99.00	215.00	21,285.00
16.00	JACKETING				
16.01	Dismantling brick masonry in lime or cement mortar and stacking the materials as directed with all leads, lifts etc.	Cum	21.00	351.75	7,386.75
16.02	Providing second class Burnt Brick masonry with conventional/ I.S. type bricks in cement mortar 1:6 in superstructure including striking joints, raking out joints, watering and scaffolding etc. Complete	Cum	11.00	9060.75	99,668.30
16.03	Removing rich mix cement concrete including stacking the spoils as directed with all leads, lifts etc, complete.	Cum	1.00	976.50	976.50
16.04	Excavation for foundation in earth, soil of all types, sand, gravel and soft murum, including removing the excavated material upto a distance of 50m. beyond the building area and stacking and spreading as directed, dewatering, preparing the bed for the foundation and necessary backfilling, ramming, watering including shoring and strutting etc. complete. (Lift upto 0.00 to 1.50 m.) By Manual Means	Cum	3.00	329.70	989.10
16.05	Providing dry/ trap/ granite/ quartzite/ gneiss rubble stone soling 15cm to 20cm thick including hand packing and compacting etc. complete	Cum	2.00	2118.15	4,236.31
16.06	Providing and laying Cast insitu/ Ready Mix cement concrete in M15 of trap/ granite/ quartzite/ gneiss metal for foundation and bedding/ steps including steel centering, formwork, laying/ pumping, compacting, roughening them if special finish is to be provided, finishing uneven and honey combed surface and curing etc. complete. The Cement Mortar 1:3 plaster is considered for rendering uneven and honey combed surface, only. Newly laid concrete shall be covered by gunny bag, plastic, tarpaulin etc. (Wooden centering will not be allowed.), with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)	Cum	1.00	7043.34	7,043.34
16.07	Shear Connectors: Make 10/12 mm dia holes using heavy duty electrically operated hammer drills in the concrete of RCC members to a depth of about 75 mm at 500 mm c/c or at suitable grid in zig-zag fashion, clean the holes using air jet and fix pre- fabricated 100 x 50 mm L-shape 8 mm dia rebar using Anti Corrosive protective coating so that 75 mm out of 100 mm is inserted inside the concrete and 25 mm remain outside along with 50 mm bend. The shear connectors are used to tie the additional reinforcement bars	Nos.	1150.00	561.00	6,45,150.00
17.00	WATERPROOFING				
17.01	Removing brick bat coba including stacking the spoils as directed with all leads, lifts etc, complete.	Cum	14.00	664.65	9,305.10

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
17.02	Lowering down the debris obtained from breaking and removing the cement plaster/ burnt brick masonry of the first floor by any means without causing dust nuisance and damage to structure, stacking the same as and where directed including cleaning the site complete	Cum	14.00	789.60	11,054.40
17.03	Providing and applying of MARISEAL 250 or equivalent approved make of Polyurethane coating in two coats for terrace waterproofing having more than 400 % elongation at break. The final curing time shall be of 7 days. The Water Vapor Permeability shall be more than 25 gr/m ² /day. The service temperature shall be of 30 to 90 Deg Cel and the adhesion to concrete properties shall be more than 1.5 N/mm ² . The coating shall be highly permanent elastic, cold applied and cold curing, one component polyurethane membrane. The coating shall have mechanical, chemical, thermal, UV and natural element resistance properties. The MARISEAL 710 Polyurethane Primer or equivalent approved make solvent based primer shall be used for quick drying. The MARISEAL FABRIC or equivalent approved make shall be used as a reinforcing fabric for liquid applied waterproofing membranes.	Sqm	93.00	1716.00	1,59,588.00
18.00	PLASTERING				
18.01	Removing the existing cement plaster of any thickness without causing dust nuisance and stacking the debris upto a distance of 50 metres or spreading in the compound and cleaning the site etc. complete.	Sqm	7037.00	54.60	3,84,220.20
18.02	Providing sand faced plaster externally in cement mortar using approved screened sand, in all positions including base coat of 15mm thick in cement mortar 1:4 using waterproofing compound at 1 Kilogram per cement bag curing the same for not less than 2 days and keeping the surface of the base coat rough to receive the sand faced treatment 6 to 8 mm thick in cement mortar 1:4 finishing the surface by taking out grains and curing for fourteen days scaffolding etc.complete.	Sqm	3910.00	701.02	27,40,972.90
18.03	Providing internal cement plaster 12mm thick in single coat in cement mortar 1:4 without neeru finish to concrete or brick surfaces, in all positions including scaffolding and curing etc. complete.	Sqm	3127.00	305.57	9,55,514.67
19.00	TILING				
19.01	Providing and laying ceramic tiles of having size 30cm.x30cm. and confirming to corresponding I.S. for dado and skirting in required position with ready made adhesive mortar of approved quality on plaster of 1:2 cement mortar including joint filling with white/ colour cement slurry cleaning curing etc. complete.	Sqm	292.00	1317.75	3,84,783.00
20.00	PAINTING				
20.01	Providing and applying two coats Apex Ultima Puranature Anti-Pollution Or equivalent approved brand, paint should decomposes organic substances and inorganic gases (NOx, VOC's, CO, SOx, formaldehydes, etc.) in presence of natural or artificial light. It contains Graphene and nano particles of titanium oxide. and Absorbs CO ₂ (4.8 Kilogram/15l). plaster crack should be filled by Acrylic base Crack seal/ Textured Crack filler, Paint has to applied on one coat of Apex Ultima Puranature Anti-Pollution Primer or Equivalent. Warranty Should be given by the Manufacturer The work should be done by the Manufacturer Recommended applicator and he should be able to furnish stage wise on site technical reports from the concerned company technologist.	Sqm	1124.00	390.60	4,39,034.40
20.02	Providing and applying white-wash in two coat on old/ new plastered or masonry surfaces and asbestos cement sheets including scaffolding and preparing the surface by brushing and brooming down etc. complete.	Sqm	5939.00	12.60	74,831.40
20.03	Providing and applying priming coat over new/old steel and other metal surfaces including preparing the surface by thoroughly cleaning oil, grease, dirt and other foreign matter and scoured with wire brushes, fine steel wool, scrappers and sand paper, scaffolding etc.complete.	Sqm	4304.00	38.85	1,67,210.40

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
20.04	Providing and applying two coats of flat oil paint of approved colour to the old structural steel work and iron work previously painted in building including scaffolding, if necessary, cleaning and preparing the surface (excluding primer coat) etc. complete.	Sqm	4304.00	89.25	3,84,132.00
21.00	ROOFING WORK				
21.01	Removing Existing Mangalore tiles / AC / GI / Galvalume Sheets/polycarbonate plain and corrugated sheets from roof / cladding / partitions etc., excluding supporting structure but including scaffolding, handling, transporting, sorting and stacking at site lead up to 150m and or disposing etc complete as directed.	Sqm	1538.00	127.00	1,95,326.00
21.02	Providing& installing pre insulated roof panels of QUADCORE or equivalent approved make of trapezoidal micro ribbed of approved colour RAL 9002 or similar make. The thickness of roof panel shall be 60mm including 0.50 mm pre painted galvalume steel on both sides. The sheet grade shall be of 300 Mpa with silicone modified polyester (SMP) type of coating with 150 GSM. The roof panel shall be fire safe and shall have minimum density of 40 kg/cum. The panels shall be jointless and shall have length up to 11.8 mtr. The panel width shall be 1.1 mts approx. The thermal conductivity of roof panel is as minimum as 0.018W/mk. The core shall be made of self-blended hybrid insulation core with composition of foam based closed cell structure. The panel shall be made up of green material and shall be suitable for internal and external areas for application. Approved Make -Kingspan Jindal QUADCORE or equivalent approved.	Sqm	1692.00	4200.00	71,06,400.00
21.03	Providing & installing flashings in 0.5mm pre painted galvalume steel (PPGL) Approved Make - Kingspan Jindal or equivalent	Kg	373.00	252.00	93,996.00
22.00	MISCELLANEOUS				
22.01	Providing and fabricating structural steel work in rolled sections like joists, channels, angles, tees etc. as per detailed design and drawings or as directed including cutting, fabricating, hoisting, erecting, fixing in position making riveted/ bolted/ welded connections without connecting plates, braces etc. and including one coat of anticorrosive paint and over it two coats of oil painting of approved quality and shade etc. complete.	MT	12.00	106936.20	12,83,234.40
23.00					
23.01	Removing cast iron or wrought iron or A.C. pipe and stacking them as directed with all leads, lifts etc. complete.	Rmt	60.00	23.10	1,386.00
23.02	Providing and fixing P.V.C. Rain water pipes of 110mm outer diameter and having wall thickness of 2.2 to 2.7 mm conforming to I.S.13592-1992 including proper rain water receiving recess with P.V.C. plug, bend, necessary fittings, such as, offsets, shoes, including fixing the pipe on wall using approved wooden cleats projecting 25mm to 40mm from face of wall a fixing with clips of approved quality and One Number, filing the joint using rubber gasket with solvent cement and properly resting the shoe of pipes on C.C. or masonry blocks, including necessary scaffolding and maintenance for 3 yrs for any leakages or dislocations of pipes. All the P.V.C. fittings and additional 2 piece socket clips shall be got approved from engineer in charge etc. complete.	Rmt	60.00	597.45	35,847.00
23.03	Removal of plants/ ficus grown by pulling out root system embedded in masnory, cutting stem and application of high/ gur/ lime formulation as specified by the Architect or other patented chemical biocide treatment such as biocide 'Glycel' (iso proplamine salt of glyphosate) or other chemical as specified by the Engineer in charge etc. complete.	Nos.	30.00	239.40	7,182.00
23.04	Providing antitermite treatment to the sides of flooring of the existing building as per I.S.6313 (Part-III) by punching holes 6mm dia. drilled at a distance of 30cm.	Nos.	640.00	27.30	17,472.00

Item No.	Description	Unit	Qty.	Rate	Amount
	centre to centre and injecting one percent of chlorodane emulsion concentrate at the rate of 50 ml per hole and sealing by filling putty etc. complete covering 2 years guarantee on bond paper.				
23.05	Providing and fixing Jute Kantan (Tarat) screen to the scaffold-ing for external guniting as directed including removing the same after the work is over etc. complete.	Sqm	3311.00	71.40	2,36,405.40
23.06	Disposal of building rubbish / malba / similar unserviceable, dismantled or waste materials by mechanical means including loading, transporting, unloading to approved municipal dumping ground or as approved by Engineer-in-charge, beyond 50 m initial lead, for all loads including all lifts involved. For 25 Km Lead	Cum	167.00	616.35	1,02,930.23
			Work Portion		2,42,02,973.64
F	ROYALTY				
1	Royalty Charges for Sand are to be paid to the contractor after producing receipt of royalty paid to the Govt. for the material used for this work.	Cum	267.85	237.37	63,579.95
2	Royalty Charges for Other Minerals are to be paid to the contractor after producing receipt of royalty paid to the Govt. for the material used for this work.	Cum	2.00	216.18	432.36
		Royalty Charges			64,012.31
G	TESTING				
1	BASIC TEST OF CEMENT:- Standard Consistency, Fineness, Specific Gravity, Setting Time (Initial & Final), Compressive Strength, Soundness.	Test	1.00	3770.00	3,770.00
2	FINE AGGREGATES : Carrying out test of Fineness Modulus (Sieve Analysis), Silt & Clay Content	Test	1.00	1380.00	1,380.00
3	FINE AGGREGATES : Carrying out test of Fineness Chloride & Sulphate Content	Test	1.00	795.00	795.00
4	FINE AGGREGATES : Carrying out test of Silt Factor.	Test	1.00	850.00	850.00
5	BASIC TEST OF AGGREGATE: Water Absorption, Specific Gravity, Impact Value, Crushing Value.	Test	1.00	2600.00	2,600.00
6	CONCRETE: Compressive Strength OF C.C. Cube (Set of 3 cubes).	Test	20.00	690.00	13,800.00
7	CONCRETE: Concrete Mix Design (With all Tests on basic materials).	Test	1.00	13755.00	13,755.00
8	STONE/ RUBBLE: Crushing Value/Compressive Strength, Water Absorption & Specific Gravity,	Test	1.00	2020.00	2,020.00
9	WATER: PH Value, Sulphate & Chloride Content.	Test	1.00	1115.00	1,115.00
10	STEEL ANTI CORROSIVE TEST: Chemical Resistance Test.(Set of 8 Bars).	Test	1.00	2390.00	2,390.00
11	STEEL ANTI CORROSIVE TEST: Salt Spray Test (4 Cycles) (Set of 2 Bars).	Test	1.00	1485.00	1,485.00
12	STEEL BAR TESTING: Upto 16 mm (Set of 3 Bars)	Test	1.00	1275.00	1,275.00
		Testing Charges			45,235.00

PROPOSED INTERIOR WORK OF MAKEUP ROOMS AT STUDIO NO. 16					
Item No.	Description	Unit	Qty.	Rate	Amount
1	ITEM NO:-01 Dismantling brick masonry in lime or cement mortar and stacking the materials as directed with all leads, lifts etc.	CMT	13.56	351.75	4,768.19
2	ITEM NO:-02 Removing cement tiles, or marble or polished shahabad floor or dado without bed concrete including stacking the materials as directed with all leads, lifts etc. complete.	SMT	1045.75	47.25	49,411.85
3	Removing brick bat coba including stacking the spoils as directed with all leads, lifts etc, complete.	CMT	14.09	664.65	9,361.60

Item No.	Description	Unit	Qty.	Rate	Amount
4	ITEM NO:-04 Dismantling aluminium/ Gypsum partitions, doors, windows, fixed glazing and false ceiling including disposal of unserviceable surplus material and stacking of serviceable material with in 50 meters lead as directed by Engineer-in-charge.	SMT	57.95	42.00	2,433.90
5	ITEM NO:-05 Removing doors and windows with frames and stacking the materials as directed with all leads, lifts etc. complete.	NOS	46.00	163.80	7,534.80
6	ITEM NO:-06 Removing ventilators and small windows with frame and stacking the materials with all leads, lifts etc. complete.	NOS	12.00	138.60	1,663.20
7	ITEM NO:-07 Removing urinal pans or wash hand basins with frame including disconnecting the sanitary and water supply connections, removing the same carefully and stacking the serviceable materials as and where directed including throwing the unserviceable materials outside etc complete	NOS	18.00	100.80	1,814.40
8	ITEM NO:-08 Removing W.C. pans including disconnecting the sanitary and water supply connections, removing and breaking flooring and bed concrete around pan removing the same carefully and stacking the serviceable materials as adn where directed including throwing the unserviceable materials out side etc. carefully and throwing out the refusal outside etc complete.	NOS	17.00	217.35	3,694.95
9	ITEM NO:-09 Providing second class Burnt Brick masonry with conventional/ I.S. type bricks in cement mortar 1:6 in superstructure including striking joints, raking out joints, watering and scaffolding etc. Complete	CMT	14.92	10,027.16	1,49,565.12
10	ITEM NO:-10 Removing the existing cement plaster of any thickness without causing dust nuisance and stacking the debris upto a distance of 50 metres or spreading in the compound and cleaning the site etc. complete.	SMT	1041.73	54.60	56,878.59
11	Providing internal cement plaster 12mm thick in single coat in cement mortar 1:4 without neeru finish to concrete or brick surfaces, in all positions including scaffolding and curing etc. complete.	SMT	955.05	305.40	2,91,670.74
12	Providing and applying plaster / wall punning with plaster of paris (with plaster of paris material of Ambuja / Mor Chap or equivalent make) in 10 to 13 millimeter thickness to previously plastered surface / or on newly brick surface (Excluding rough cast plaster) in all position including preparing and Finishing the surface scaffolding etc complete	SMT	578.62	600.60	3,47,516.17

Item No.	Description	Unit	Qty.	Rate	Amount
13	ITEM NO:-13 Providing and applying priming coat on concrete/ masonry/ Asbestos Cement plastered surfaces including scaffolding if necessary, preparing the surface by thoroughly cleaning oil, grease, dirt and other foreign matter and sand papering as required etc. complete.	SMT	851.98	37.80	32,204.69
14	ITEM NO:-14 Providing and applying plaster with plaster of paris in 6mm thickness to previously plaster surface in all position including preparing the surface scaffolding etc. complete.	SMT	851.98	151.20	1,28,818.77
15	Providing and applying Royale Luxury Emulsion of approved make on internal wall surface as detailed below Scrapping for surface with emery paper and wipe clean for area. wall primer with brush by adding mineral turpentine oil by 8 to 10 % or water by 15 to 20% allowing to dry for 6 to 8 hoursAfter applying acrylic wall putty with appropriate prpportion of water of allow to dry for period of 4 to 6 hours of activity. Scrapping with emery paper and wipe clean Applying paints Royale Luxury emulsion 1st coat with brush water content water 40 to 45% or 65 to 70% by role Applying paints Royale luxury emulsion 2nd coat with brush with water content 40 to 45% or 65 to 70 % by roller. (With prior approval of S.E.)	SMT	580.51	288.75	1,67,620.82
16	Providing and applying plastic emulsion paint of approved quality, colour and shade to new surface in three coats including scaffolding, preparing the surface. (excluding primer coat) etc. complete.	SMT	273.36	141.75	38,748.92
17	ITEM NO:-17 Providing and applying two coats of synthetic enamel paint of approved colour to new /old structural steel work and woodwork in buildings, including scaffolding if necessary, cleaning and preparing the surface (excluding primer coat) etc. complete.	SMT	10.00	100.80	1,008.00
18	Providing and laying vitrified mirror / glossy finish tiles decorative type having size 590 mm to 605 mm x 590 mm to 605 mm of 8 to 10 mm thickness and confirming to IS. 15622-2006 (group Bla) of approved make, shade and pattern for flooring in required position laid on a bed of 1:4 cement mortar including neat cement float, filling joints, curing and clearing etc. complete. a) Flooring	SMT	221.06	1,253.84	2,77,175.12
19	Providing and applying two coats of synthetic enamel paint of approved colour to new/old structural steel work and woodwork in buildings, including scaffolding if necessary, cleaning and preparing the surface (excluding primer coat) etc. complete.	SMT	10.00	100.80	1,008.00

Item No.	Description	Unit	Qty.	Rate	Amount
20	ITEM NO:-20 Providing and laying vitrified mirror / glossy finish tiles having size 590 mm to 605 mm x 590 mm to 605 mm of 8 to 10 mm thickness and confirming to IS. 15622-2006 (group Bla) of approved make, shade and pattern for dado and skirting in required position fixed in 1:4 cement mortar including neat cement float, filling joints, curing and clearing etc. complete.	SMT	236.65	1,332.59	3,15,350.76
21	ITEM NO:-21 Providing and laying vitrified matt fininsh tiles having size 590 mm to 605 mm x to 605 mm of 8 to 10 mm thickness and confirming IS. 15622-2006 (Group Bla) of approved make, shade and pattern for flooring in required position laid on a bed of 1:4 cement morar including neat cement float, filling joints, curing and cleaning etc. complete.	SMT	312.15	1,697.99	5,30,027.58
22	ITEM NO:-22 Providing and laying Antiskid Ceramic tiles of approved quality of size 30 cm x 30 cm and confirming to IS 15622-2006 (Group-B IIA) for antiski flooring in required position laid on a bed of 1:4 cement mortar including cement float, filling joint with cement slurry cleaning curing etc. complete.	SMT	5.00	1,275.29	6,376.45
23	ITEM NO: -23 Providing and laying ceramic tiles having size 30 cm. x 60 cm. confirming to corresponding I.S. for dado and skirting in required position with readymade adhesive mortar of approved quality on plaster of 1:2 cement mortar including joint filling with white/ colour cement slurry cleaning curing etc. complete.	SMT	5.00	1,476.89	7,384.45
24	ITEM NO: -24 Providing and laying hand made tile of various size and aproved designs for dado and skirting in required position with readymade adhesive mortar of approved quality on plaster of 1:2 cement mortar including joint filling with white/ colour cement slurry cleaning curing etc. complete.	SMT	5.00	9,890.00	49,450.00
25	Providing and laying machine cut machine Polished Kota stone flooring 25mm to 30mm thick and required width in plain/ diamond pattern on bed of 1:6 C. M. including cement float, filling joints with neat cement slurry, curing, polishing and cleaning etc. complete.	SMT	5.00	1,329.14	6,645.70
26	Providing and laying telephone black / Amba White / Cadburybrown / Ruby red / Ocean Brown granite stone of 18 to 20 mm thick for door frame/ dado/ window boxing etc. On C.M. 1:6 including filling joints with polymer base filler nosing/moulding the sharp edges wherever necessary, curing, etc. complete.	SMT	58.89	4,623.29	2,72,265.55

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

tem No.	Description	Unit	Qty.	Rate	Amount
26(A)	Providing and fixing frame with / without ventilator of size as specified with Country cut teak wood for doors and windows including chamfering, rounding, rebating, iron holdfast of size 300mm x 40mm x 5mm with oil painting, etc. complete	CMT	1.09	2,10,052.50	2,28,192.72
27	ITEM NO: -27 Providing and fixing frame with / without ventilator of size as specified with Country cut teak wood for doors and windows including chamfering, rounding, rebating, iron holdfast of size 300mm x 40mm x 5mm with oil painting, etc. complete	CMT	21.15	7,930.50	1,67,730.08
28	ITEM NO :- 28 Providing and applying melamine polish of required finish to the wood work by spray machine including knotting and preparing the even surface by scraping, applying French polish , scaffolding if required etc. complete. Note:The work to be executed on prior approval of Superintending Engineer will be necessary SSR 34.09/224	SMT	38.28	870.45	33,320.83
29	ITEM NO :- 29 Providing and fixing solid core flush door shutter in single leaf 32 mm thick decorative type of exterior grade as per detailed drawings approved face veneers 3 mm thick on both faces or as directed, all necessary beads, mouldings and lipping, wrought iron hold fasts, chromium plated fixtures and fastenings, with brass mortise lock, chromium plated handles on both sides, and finishing with French Polish etc. complete. SSR 39.09 / 246	SMT	41.58	3,232.95	1,34,426.06
30	ITEM NO :- 30 Providing and fixing fiber glass reinforced polyster door shutter 35 mm thick as per IS 14856 (2000) (Reaffirmed 2006) without ventilator including chromium plated fixtures and fastening with chromium plated handles on both sides, etc complete. SSR 39.59/258	SMT	13.23	3,669.75	48,550.79
31	ITEM NO :- 31 Providing and fixing in position (as per 1868 / 1982) Alluminium sliding window of three tracks with rectangular pipe 95 x 38.10 x 0.90 mm at weight 0.637 kg/Rmt. with window frame bottom track section 92 x 31.75 x 1.30 mm at weight 1.070 kg/Rmt.. Top and side track section 92 x 31.75 x 1.30 mm at weight 0.933 kg/Rmt. The shutter should be of bearing bottom 40 x 18 x 1.25 mm at weight 0.417 kg/Rmt. Inter locking section 40 x 18 x 1.10 mm at weight 0.469 kg/Rmt. and handle and top section 40 x 18 x 1.25 mm at weight 0.417 kg/Rmt. As per detailed drawings and as directed by Engineerincharge with all necessary Aluminium sections fixtures and fastenings such as roller bearing in nylon casting and self locking catch fitted in vertical section of shutter including 5 mm thick plain glass and aluminium mosquito net shutter with stainless steel jail with all required screws and nuts etc, complete. With colour Anodising with box SSR 39.41 / 253	SMT	24.00	5,777.10	1,38,650.40
32	ITEM NO :- 32 Providing and fixing in position aluminium partly openable and partly fixed window of any size as per detailed drawing and as directed by Engineer in charge with all necessary aluminium sections including necessary fixtures and fastening with 5 mm thick float glass etc. complete. b) With powder coating Note While arriving at the rate of item of item weight at 6.90 Kilogram/Square Metre is considered. SSR 39.55/257	SMT	8.56	6,596.10	56,462.62
33	ITEM NO :- 33 Providing and fixing in position b) Powder Coated aluminium fixed window fully glazed of any size as per detailed drawing and as directed by	SMT	8.13	6,001.80	48,764.63

	Engineer in charge with all necessary aluminium sections including necessary fixtures and fastening such as 5 mm thick clear float glass etc. complete. SSR 39.53B/257				
Item No.	Description	Unit	Qty.	Rate	Amount
34	ITEM NO :- 34 Providing and fixing in position Gypsum board false ceiling with 12.5 mm thick Gypsum boards, screwed/ fixed to the under structure of suspended G.I. Grid constructed and suspended from the main ceiling consisting of ceiling sections of size 25 x 50 mm maximum center to center distance of 600 milimetre perimeter channel and intermediate channels at maximum center to center distance 1200 milimetre galvanized grid should be fixed to reinforced cement concrete slab. The gypsum board should be fixed to galvanized iron grid with necessary screws. The boards should be taped and filled from underside to give smooth, seamless ceiling. The rate should include necessary additional ceiling sections and intermediate channels. Additional intermediate channels should be fixed to strap hangers for additional support to prevent strapping at every 1200 milimetre item to be completed in all respect including necessary sleeves for ducts finishing of joints cut outs, painting including labour, material, lifts etc. all complete. SSR 38.51/243	SMT	277.96	1,857.45	5,16,298.66
35	ITEM NO :- 35 Providing water proofing in W.C. and bath including brick bat coba in all position including providing and laying 12mm bed ding in cement mortar 1:3 on vergin concrete slab with waterproofing compound @1 Kilogram/ per bag of cement laying brick bat coba of required thickness i n cm 1:5 with waterproofing compound 1Kilogram/ bag of cement grouting and finishing the to play er with 20mm thick brick bed ding in cmmortar 1:3 with waterproofing compound 1Kilogram/ per bag of cement nd testing the treated portion for 48hours by pond test and covering ten years' guarantee on requisite stamp paper including curing etc. complete. SSR 31.26 / 208	CMT	21.15	7,930.50	1,67,730.08
36	ITEM NO :- 36 Providing and applying water proofing treatment using acrylic polymer modified cement based water proofing coating with fibre glass mesh mixing at the rate of powder to liquid (2:1) by weight covering 9 to 10 sqm /kg with two coat using approved chemicals for masonry and concrete surface by brush covering 7 years guarantee on Stamp Papers etc. complete. SSR 31.09/206	SMT	9.67	645.75	6,244.40
37	ITEM NO :- 37 Providing and fabricating structural steel work in rolled sections like joists, channels, angles, tees etc. as per detailed design and drawings or as directed including cutting, fabricating, hoisting, erecting, fixing in position making riveted / bolted / welded connections without connecting plates, braces etc. and including one coat of anticorrosive paint and over it two coats of oil painting of approved quality and shade etc. complete. SSR 23.01/173	MT	0.50	1,06,936.20	53,468.10
38	ITEM NO :- 38 Supply and installation of cubicles of width and depth as per Athena Lite- SS Series Cubicles- Std Sizes (W x D x H): 900 mm x 1550 mm x 2105 mm, (Height is including 100 mm gap from bottom, Door Width- 600 mm specifications/ site drawings). Cubicle height to be 2105 mm. Made from solid grade compact high pressure laminate as per IS:2046 and EN-438 manufactured under high specific pressure > 5 MPa and temperature >120°C, All doors will be of single colour and made of 12 mm thick Merino HPL compact panel. The doors will have chamfered edges. Each door will be supported by 3 stainless steel made hinges affixed to the pilasters. Size of panels to be as per drawing. HARDWARE &	SMT	13.20	11,196.00	1,47,787.20

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
	ACCESSORIES are H shaped (Top) head frame structure made of extruded Aluminium grade 6063 T5-50 micron epoxy powder coated for surface protection, Size to be 125x70x5T. Corner joinery section, Size to be 40x16.5x1.8T. U- Channel Wall joinery section, Size to be 22x16x1.6T. Door stopper section, Size to be 21x12.5x1.6T. Spring loaded Butt Hinges made from Stainless steel grade 304. Surface finish to be matt type. Covers to be lacor coated.etc complete. SSR 51.162 / 395				
39	ITEM NO :- 39 Providing and fixing on site VENEER FINISH WALL PANELING made by using approved quality seasoned T.W. framing of 38 x 25 mm at approximately 600 x 450 mm center to center or as per site conditions and covered by 12 mm thick marine ply generally conforming to I.S.303 /I.S.710-1980 finished with 3 mm thick group match veneer of approved quality with groove pattern including all necessary end mouldings, moulding pattern, and melamine polish. Antitermite treatment to plywood and woodwork etc. including all leads & lifts complete as per Architects detailed drg. & design and as instructed by The Engineer In Charge (Basic Veneer Rate Rs.75/-per sft) MCGM/ R3-CS-WW-41	SMT	100.26	5,346.00	5,35,989.96
40	ITEM NO :- 40 Providing and fixing bevelled edge mirror of superior glass (of approved quality) 6mm glass with 12mm bevelled including edge Polish with PVC backing complete with fixed to wooden cleats with C.P. brass screws and washers complete. MR.	SMT	80.31	2,187.00	1,75,637.97
41	ITEM NO :- 41 Providing & Fixing Wooden shutters for Storage/Counter made of 18 mm thk plywood with all external surfaces finished with approved laminate of 1.0 mm thk & internal surfaces finished with white/offwhite laminate 0.8 mm thk. All wooden surfaces finished with melamine polish. etc complete As per drawing. Spec. As directed by Engineer-In-Charge MR	SMT	72.86	14,000.00	10,19,970.00
42	ITEM NO :- 42 Providing & Fixing Dressing Table of Approved size .The Dressing table unit is made up 18 mm thk plywood with all external surfaces finished with approved laminate of 1.0 mm thk & internal surfaces finished with white/offwhite laminate 0.8 mm thk. All wooden surfaces finished with melamine polish. The unit has drawer and shelf. including Light Provision and complete as per specification. MR	SMT	41.90	23,600.00	9,88,840.00
43	ITEM NO :- 43 Providing and applying pearl/ luster finish paint of approved colour and shade to the existing plaster surface including scaffolding, preparing the surface, applying the acrylic wall putti etc. complete. SSR 35.23 / 225	SMT	10.00	226.80	2,268.00
44	ITEM NO :- 44 Providing and fixing 20 mm thick superior veneer board pelmet box 150 to 200 mm wide to doors or window frames including 20mm dia. Aluminium curtain rod with sockets and finishing with french polishing (without top)etc. complete. 37.14/231	SMT	22.23	3,687.60	81,975.35

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
45	ITEM NO :- 45 center table Providing and supplying canter table of required size with top made of 8mm thick clear toughened glass with bevelled edge from bottom edge of the glass border and vertical edge with polish etc. complete. Understructure made of 25mm thick Marine ply (IS 710 : 2010) with all exposed edge finished with 2mm thick machine pressed PVC edge banding in matching colour. (Rehau Make/or Equivalent) for better impact resistance. Nylon button stopper to hold glass top in position, Nylon bushers etc. complete. R3-CS-FUR-10-a	NOS	12.00	6,426.00	77,112.00
46	ITEM NO :- 46 CABIN SOFA Providing and supplying wooden sofa made with minimum 19mm. Marine ply (IS 710 : 2010) structure and internal frame work made of C.P. teak / Maranti wood seat made with minimum 19mm. Marine ply (IS 710 : 2010) and cushion made with foam of 150mm thick - 32 density on seat covered with 14mm thick - 18 density foam. Back made with wooden frame of minimum 50mm X 40mm with 4 mm. ply and covered with foam of 100mm thick - 32 densities covered with 14mm thick - 18 density foam for back extra support to the shape all foam of seat and back covered with tapestry approved by E-I-Charge. (Basic rate Rs. 450/- metre.) Handle made with wooden frame with box of 12mm. ply covered with 14mm thick - 18 density foam with tapestry etc. complete. R3-CS-FUR-17-a / 1 seater	NOS	10.00	17,955.00	1,79,550.00
47	ITEM NO :- 47 Sofa Set 3+1+1 Providing & fixing Sofa Set 3+1+1 Brown and Cream leather DIMENSION Length: 182.5 (cms) Breadth (cms): 100 (cms) Height (cms): 100 (cms) Weight (Kilograms): 66 (Kilogram) Seating Capacity: Five Seat SSR 51.53/366	NOS	11.00	41,592.60	4,57,518.60
48	ITEM NO :- 48 Providing and Fixing Rollar Blinds AMI Make or approved make & shade of 38mm round Aluminium channel with Blackout fabric & telting with chain (Ball) system with all necessary fixtures and fitting etc. complete. (Sample to be final by Engineer In-charge prior execution of work) SSR 51.19/355	SMT	22.00	2,259.60	49,711.20
49	ITEM NO :- 49 Providing & Arrangemnt of High Back, Synchronized Mechanism with Multiple Locking, Adjustable Armrest, Gaslift for Seat height adjustment, Standard 5-prong P/Nylon Base with Leatherite Upholstery SSR 51.40/359	NOS	38.00	18,239.55	6,93,102.90
50	ITEM NO :- 50 providing and fixing laser cut 3mm ss later of height 24 inches with stud weld and back side fixing in wall with chemical grouting all later powder coated all other necessary hardware fitting. MR	INCH /LATER	24.00	201.00	4,824.00
51	ITEM NO :- 51 Stainless steel nameplate : Providing and Fixing the 150mmx50mm Stainless steel nameplate by requirement of Department. PUNE/PWD/187597 64-14	JOB	15.00	275.00	4,125.00
52	ITEM NO :-52 Providing and fixing toilet Partition of 12 mm toughen glass and sliding fitting with c bracket and required including operating hardware, SS patch fittings, fabricated long length satin finish SS 304 handles,patchlock, floor springs etc., complete as directed by the architect MR	SMT	26.57	14,050.00	3,73,238.25

CONTRACTOR		NO. OF CORRECTIONS		DEPUTY ENGINEER (CIVIL)		
Item No.	Description	Unit	Qty.	Rate	Amount	
53	ITEM NO :- 53 Refixing C.I. and UPVC vent , soil, waste and rain water pipe of any size including cleaning and making good masonry of walls cornices etc. before fixing including fitting such as W.I. clamps, accessories of approved make with scaffolding etc. complete. MCGM/R3-CS-RM-76	RMT	60.00	182.00	10,920.00	
54	ITEM NO :- 54 Providing LED BULB 5W or 7W , 230v, 50 Hz having colour temp up to 6500k complete erected with mains and required switchgears with continuous earth wire complete as per specification MR	NOS	200.00	297.00	59,400.00	
55	ITEM NO :-55 Supplying and erecting Recess mounted 10-15 W LED wall washers/Spot Light/updown Light, tilted outwards /swivels/flush to wall to offer best illumination on the wall with any colour with driver complete. (Including Compatible Driver) MR	NOS	50.00	2,565.00	1,28,250.00	
56	ITEM NO :- 56 Supplying and erecting LED square / circular 15W-18W automatic motion sensor light downlighter/panel concealed as per specification provided by the engineer in charge.complete MR	NOS	18.00	3,720.00	66,960.00	
57	ITEM NO :- 57 Supplying and erecting Recess mounted 30W LED wall washers/Spot Light/updown Light, tilted outwards /swivels/flush to wall to offer best illumination on the wall with any colour with driver complete. (Including Compatible Driver) MR	NOS	10.00	5,130.00	51,300.00	
58	ITEM NO :- 58 Supply installation testing and commissioning of 4MP, Full HD, 1/2.8 type CMOS image sensor, Vari Focal : 9.0 mm to 22 mm, H.265 / H.264 & MJPEG triple-stream encoding, Max. IR LEDs length 30 m , IP66 rated, 25/30fps@1080P (1920 ×1080), Support ICR for day time and night time operation, Zoom ratio :2.4x Optical (Motorized zoom/ Motorized focus), Bullet Camera. MR.	NOS	10.00	33,412.00	3,34,120.00	
INTERIOR TOTAL					96,35,108.04	
	PLUMBING					
59	Providing and fixing European type wall-hung white water closet of approved make with push valve concealed type with cover plate 32mm size of approved make including soil pipe, vent pipe up to outside face of wall ,100mm dia. G.I. plug bend inlet pipe all fittings, cuttingand making good walls, floors etc. complete. SSR 42.86	NOS	16.00	15,777.30	2,52,436.80	
60	Providing and fixing 1st class white glazed earthenware Orissa Type W.C. Pan 580 mm dia including P or S trap cast iron soil and vent pipe upto the outside face of the wall (1:5:1 0) cement concrete bedding 15 mm thick, 10 liter P.V.C. flushing cistern with all necessary pipe connection etc. complete SSR 42.33	NOS	16.00	7,757.40	1,24,118.40	
61	Providing and fixing Oval Type Under Counter Wash Hand Basin of 420 x 590 x 195mm size with pillar cock, C.P.Angular stop cock, long thread of approved make continental including SS bottle trap of necessary pipe connection up to the outside face of the wall, having Telephonic Black / Colour Granite of 180 mm thick fixed on Black Kadappa Framework, etc. Complete as directed by Engineer in charge. SSR 48.35 /315	NOS	17.00	20,883.45	3,55,018.65	

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
62	ITEM NO :- 62 Providing and fixing C.P. BIB cock with wall flange of approved make including necessary sockets/ union nut etc. complete. SSR 42.83	NOS	16.00	1,163.40	18,614.40
63	ITEM NO :- 63 C.P. angular stop cock with wall flange jaquar make continental (Cat.No. CON- 059) SSR 216	NOS	35.00	720.30	25,210.50
64	ITEM NO :- 64 Providing and fixing C.P. a 2-Way BIB cock with wall flange of approved make including necessary sockets/ union nut etc. complete as directed by Engineer in charge. SSR 48.39	NOS	16.00	2,482.20	39,715.20
65	ITEM NO :- 65 Providing and fixing 15 mm diameter PVC Aqua kraft type of approved make super jet spray with flange 2 in 1 faucet 1.50 metre long including all accessories etc complete SSR 43.39	NOS	16.00	808.50	12,936.00
66	ITEM NO :- 66 Providing and fixing 450mm x 550mm size superior type Belgium mirror with 16mm dia. nickel plated towel rod etc. complete. SSR 42.20	NOS	14.00	904.05	12,656.70
67	ITEM NO :- 67 C.P.Toilet paper holder jaquar make continental (Cat. No. AQ 7751) SSR 232	NOS	14.00	1,048.95	14,685.30
68	ITEM NO :- 68 Supplying and erecting storage type water heater 15 litres capacity having standing loss <0.419 kWh / 24 hour / 45°C, high impact resistance engineering plastic body with anti corrosive high grade steel inner tank heating element having hard water & corrosion protection, with minimum 3 safety protections (i.e. thermostat & thermal cut-out, multi function valve) with total pressure 8 bar withstanding capacity duly tested and marking sr. no. and date of erection complete. specification no. AP-WH/STWH CSR 3-1-1	NOS	11.00	8,991.00	98,901.00
69	ITEM NO :-69 Providing and fixing divertor with overhead shower, shower arm, spout, hand shower with wall bracket having flow rate up to 12 liters/minutes of Jaquar/Cera/Hindware /Perryware or equivalent make including all necessary pipes, fittings etc. complete as directed by Engineer In Charge. (Make shall conform to manufacturer's Green product and shall got approved from the Engineer In Charge.) 48.33 /315	NOS	11.00	15,609.30	1,71,702.30
WATER SUPPLY					
70	ITEM NO :-70 Providing and fixing 75 mm dia stabiliser pipe/ P.V.C. soil vent/waste pipe and with necessary fixtures and fitting such as bends, tees, single junctions, slotted vent, clamps etc. complete SSR 42.51	RMT	50.00	637.35	31,867.50
71	ITEM NO :-71 Providing and fixing on walls/ ceiling/ floor 15 mm dia. CPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete. SSR 42.55	RMT	60.00	279.30	16,758.00

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
72	ITEM NO :-72 Providing and fixing on walls/ceiling/floor 20 mm dia. CPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete SSR 42.56	RMT	80.00	325.50	26,040.00
73	ITEM NO :-73 Providing and fixing on walls/ ceiling/ floor 25 mm dia. CPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete. SSR 42.57	RMT	60.00	393.75	23,625.00
74	ITEM NO :-74 Providing and fixing on walls/ ceiling/ floor 32 mm dia. CPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete. SSR 42.58	RMT	30.00	452.55	13,576.50
75	ITEM NO :-75 Providing and fixing on walls /ceiling/ floor 40 mm dia. CPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete. SSR 42.59	RMT	40.00	565.95	22,638.00
76	ITEM NO :-76 Providing and fixing on walls/ ceiling/ floor 50 mm dia. CPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. SSR 42.60	RMT	40.00	778.05	31,122.00
	FIRE				
77	ITEM NO :- 77 Supplying & erecting Carbon Dioxide (CO2) fire extinguisher of 4.5 kg. capacity cartridge type conform to IS 2878 /15683 complete erected with necessary clamp made from 50 x 6 mm. M. S. flat with nut & bolts routed in wall complete. CSR 13-15-1	Nos.	6.00	9,902.00	59,412.00
TOTAL					13,51,034.25
(A) TOTAL INTERIOR					96,35,108.04
(B) TOTAL PLUMBING					13,51,034.25
(C) TOTAL (A+B)					1,09,86,142.29

Note: The Quoted Rates of Contractor is only applicable to Part A of Schedule B

Assistant Engineer
MFSCDCL

Deputy Engineer (Civil)
MFSCDCL.Goregaon

ESTIMATE

**ESTIMATE FOR ELECTRICAL WORKS OF STUDIO 1, 2, 5, 7, 16 & HOSPITAL BUILDING AT DADASAHEB PHALKE
CHITRANAGARI, GOREGAON (EAST), MUMBAI - 400 065**

ABSTRACT SHEET

Item No.	Description	Unit	Qty.	Rate	Amount
Studio 1					
1	Supplying , erecting & terminating XLPE insulated, galvanised steel formed wire armoured (strip) cable 11 kV(E), 3 x 300 sq. mm. aluminium conductor laid in provided trench / pipe.	M	75	2,764.00	2,07,300.00
2	Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (strip) cable 1100 V, 3½core 240 sq. mm. aluminium conductor complete erected with glands & lugs, on wall/ trusses/pole or laid in provided trench/ pipe. Note: For use of FRLS-XLPE insulation instead of FR-XLPE insulated armoured cable increase rates by 5 %	M	75	1,449.00	1,08,675.00
3	Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (strip) cable 1100 V, 3½core 185 sq. mm. aluminium conductor complete erected with glands & lugs, on wall/ trusses/pole or laid in provided trench/ pipe . Note: For use of FRLS-XLPE insulation instead of FR-XLPE insulated armoured cable increase rates by 5 %	M	150	1,157.10	1,73,565.00
4	Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (strip) cable 1100 V, 3½ core 50 sq. mm. aluminium conductor complete erected with glands & lugs, on wall/ trusses/pole or laid in provided trench/ pipe . Note: For use of FRLS-XLPE insulation instead of FR-XLPE insulated armoured cable increase rates by 5 %	M	450	405.30	1,82,385.00
5	Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (strip) cable 1100 V, 4 core 4 sq. mm. copper conductor complete erected with glands & lugs, on wall/ trusses/ pole or laid in provided trench/ pipe . Note: For use of FRLS-XLPE insulation instead of FR-XLPE insulated armoured cable increase rates by 2%	M	450	304.98	1,37,241.00
6	Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (strip) cable 1100 V, 3½ core 25 sq. mm. aluminium conductor complete erected with glands & lugs, on wall/ trusses/pole or laid in provided trench/ pipe. Note: For use of FRLS-XLPE insulation instead of FR-XLPE insulated armoured cable increase rates by 5 %	M	100	258.30	25,830.00
Total of Cables					8,34,996.00
7	Providing printed instruction chart for treating persons suffering from electric shock, printed in English & Marathi and duly laminated complete.	Each	1	153.00	153.00
8	Providing pair of duly tested rubber hand gloves as per IS :47705 suitable for working up to 22 kV supply complete.	Each	1	693.00	693.00
9	Supplying standard first aid box with necessary antiseptic cream, medicine for use on wounds due burn, crepe bandage, gauge bandage, medicated ready to use bandage (Band-Aid) adhesive tape for medicinal use, scissors, anti-septic solution,etc. (All above contents shall be of standard makes)	Each	1	922.00	922.00
10	Supplying & erecting Carbon Dioxide (CO2) fire extinguisher of 4.5 kg. capacity cartridge type conform to IS 2878 /15683 complete erected with necessary clamp made from 50 x 6 mm. M. S. flat with nut & bolts routed in wall complete.	Each	1	9,943.00	9,943.00
11	Supplying shock proof leather safety shoes of electrical grade of standard size as IS :11226, 14544 duly tested, with necessary test certificate from manufacturer.	Per Pair	1	2,210.00	2,210.00
12	Supplying and fixing PVC synthetic elastomer electrically insulating mat with class B insulation conforming to IS: 15652 – 2006 having 2.5 mm thickness up to 11 Kv	Sq.m	5	3,695.00	18,475.00
Total of Safety Accessories					32,396.00

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

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Item No.	Description	Unit	Qty.	Rate	Amount
13	Supplying and erecting integrated LED Highbay Fitting 135W IP65 & IK08 class having die cast aluminium housing with polycarbonate diffuser with integrated optics, having system lumens output of Min. 20000 Lumens, min. efficacy of 145 lumen/W, CRI>70, CCT upto 6500K, THD<10%, p.f. >0.90, operating range of 140-240V, inbuilt surge protection of 4kV, Life class of 50,000 Hrs. at L50B50 , including driver complete with 3 Year warranty	Each	15	11,844.00	1,77,660.00
14	Supplying & erecting inverter LED batten 20W tube light fitting with polycarbonate housing, heat sink, integrated HF electronic driver, Min. 2600mAh Lithium ion Battery with charging time of 8-10 Hours and backup time of Min. 3 hrs. with minimum 25% of initial Watts having luminous efficacy of 100 lumen/watt, CRI>80, CCT of 6500K and THD<=20% having useful life of minimum 25000 hrs. with overheating protection with 2 years warranty.	Each	30	851.00	25,530.00
15	Supplying and erecting LED Strip light 5m Length Max. 45 W IP20 class having minimum lumens output of 800 Lumens/m, min. efficacy of 90 lumen/W, CRI>80, CCT upto 5000K, Beam Angle of 110 deg., THD<10%, p.f.>0.95, operating range of 230-270V, Life class of 30,000 Hrs. at L70B50, including driver with 1 year warranty.	Each	25	1,889.00	47,225.00
16	Supplying and erecting bulk head LED fitting max. 10W with high transitivity diffuser with system lumens output of min. 1100 lumens, min. efficacy of 110 lumen/W, CRI>80, CCT upto 6500K, Beam Angle of 120 deg., THD<10%, p.f. >0.95, operating range of 140-260V, in built surge protection of 2.5 kV, Life class of 50,000 Hrs. at L70B50, including driver, IP66, IK09 rated on provided PVC Block / wooden board with 3 years warranty.	Each	15	1,423.00	21,345.00
Total of Light Fixtures, Fans, etc.					2,71,760.00
	Design,fabrication,assembling,supply,installation,testing and commissioning of cubicle type LT panels suitable for 415 V 3 phase ,4 wire 50 Hz AC supply system fabricated in compartmentised design from CRCA sheet steel of 2 mm thick for frame work IP 52 and covers,3 mm thick for gland plates i/c cleaning and finishing complete 9 tank process for powder coating in approved shade RAL 7032, extendable type TPN aluminium alloy busbars of high conductivity,DMC/SMC busbar supports,with bottom base channel of MS section not less than 75mm X 50 mm X 5 mm thick,entire panel shall have a common copper earthbar of required size at the rear with 2 nos earth studs,solid connection from main busbar to switchgears with require size of aluminium busbar & control wiring with 2.5sqmm FRLS insulated copper conductor cable ,cable alleys ,cable gland plates i/c accessories as per specification and providing switchgears, metering instruments etc. for follwing panels				
17	STUDIO:-1 PCC Panel	Each	1	4,43,756.40	4,43,756.40
	MAIN PANEL (As Per IEC 61439 1 & 2 & Other Standards As Mentioned in Tender Specifications & Master SLD INCOMER: 1 No - 630A TPN MP based MCCB with O/L, S/C, E/F & RS 485 port, of fault breaking capacity 50 KA (Ics=Icu=100% upto 415 V) with R-Y-B & On/off/trip lamps, ammeter, voltmeter & multifunction meter. BUSBAR: 630A, 50kA TPN Aluminium Busbar with heat shrinkable Sleeves with copper earth bus bar. OUTGOING: (50kA Ics=Icu=100% upto 433V) with on/off/trip indication lamps & multifunction meter 15 No : 100 Amps TPN MP MCCB, 25kA with E/F protection				
Total of Panel					4,43,756.40
18	Providing & erecting hot dipped galvanised perforated type cable tray manufactured from 16 SWG (1.6 mm thick) GI sheet of 200 mm width & 75 mm height complete with necessary coupler plates & hardware..	M	100	676.00	67,600.00
19	Providing & erecting hot dipped galvanised perforated type cable tray manufactured from 16 SWG (1.6 mm thick) GI sheet of 300 mm width & 75 mm height complete with necessary coupler plates & hardware.	M	50	846.00	42,300.00
Total of Cable Trays					1,09,900.00

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
20	Supplying & erecting triple pole and neutral distribution board (TPNDB), SPMCB of 4 ways/phase (12 poles), with door, 1.2mm thickness, surface/flush mounted, IP 43 protection on iron/GI frame (horizontal busbar type)	Each	1	2,391.00	2,391.00
21	Supplying & erecting triple pole and neutral distribution board (TPNDB), SPMCB of 8 ways / phase (24 poles), with door, 1.2mm thickness surface/ flush mounted, IP 43 Protection on iron/GI frame (horizontal busbar type) .	Each	1	3,317.00	3,317.00
22	Supplying, erecting & marking TPMCB 40A to 63A, with rated short - circuit breaking capacity (Icn) 10kA in provided distribution board .	Each	1	992.00	992.00
23	Supplying, erecting & marking TPMCB 6A to 32A, with rated short - circuit breaking capacity (Icn) 10kA in provided distribution board	Each	1	751.00	751.00
24	Supplying, erecting & commissioning 2 pole RCCB 16/25A, electromagnetic type with 30/100/300 mA sensitivity with earth leakage trip indication complete.	Each	3	2,136.00	6,408.00
25	Supplying, erecting & commissioning 2 pole RCCB 40A, electromagnetic type with 30/100/300 mA sensitivity with earth leakage trip indication complete .	Each	3	2,327.00	6,981.00
26	Supplying, erecting & marking SPMCB 6A to 32A, C-series with rated short - circuit breaking capacity (Icn) 10kA in provided distribution board .	Each	20	174.00	3,480.00
27	Supplying, erecting & marking SPMCB 6A to 32A, B-series with rated short - circuit breaking capacity (Icn) 10kA in provided distribution board.	Each	4	173.00	692.00
28	Providing & erecting 3 Pole MCCB, 415 V, 100A, rated short-circuit breaking capacity 25 kA (Ics=100% of Icu), adjustable thermal (overload) setting and fixed magnetic setting with provided leads, provision for installation of shunt/UV/trip alarm contact. MCCB with phase barriers on both sides, insulation withstand capacity 800V, no line-load bias in provided enclosure/panel.	Each	15	6,969.60	1,04,544.00
29	Supplying and erecting SS enclosure of 1.6mm thick with detachable gland plate suitable for upto 100A MCCB.	Each	15	988.00	14,820.00
Total of Distribution Boards, MCCB, MCB & Acessories					1,44,376.00
30	Supplying, installing and testing earthing with galvanised iron earth plate size 60 x 60 x 0.6 cm complete with all accessories of GI materials & recording the results.	Each	6	4,819.00	28,914.00
31	Supplying and erecting GI strip of required size used for earthing on wall and/or any other purpose with necessary GI clamps fixed on wall painted with bituminous paint in an approved manner with joints required.	Kg	420	236.00	99,120.00
32	Supplying and erecting GI earth conductor of required sizes used for earthing or any other purposes on wall with necessary GI clamps fixed on wall/cable/ conduit with screws complete.	Kg	50	168.00	8,400.00
33	Supplying & erecting conventional spike type air termination suitable to carry lightning stroke made up of heavy gauge 40 mm dia copper pipe of standard length with 5 Nos. copper spikes fixed on copper ball as air terminals duly threaded in copper pipe erected on provided foundation complete.	Each	4	6,411.00	25,644.00
Total of Earthing & Lightning Arrestor					1,62,078.00
34	Dismantling the existing cables of all types & size above 10 sq mm up to 50 sq.mm.	M	500	25.00	12,500.00
35	Dismantling the existing cables of all types & size above 50 sq mm.	M	50	34.00	1,700.00
36	Dismantling the existing W.T. fluorescent fitting / S.V./ M.V. / M.H. lamp/LED fitting from wall with brackets and making the site as original complete.	Each	80	52.00	4,160.00
37	Dismantling any type of unserviceable feeder pillar, switch gear panel, capacitor panel, metering panel, bus-bar panel, electronic equipment panel, etc. and making the site as required, Approx. size (up to 200cm. x 90 cm x 45 cm and above) - Big Cupboard	Each	1	2,089.00	2,089.00
Total of Dismantling					20,449.00
38	PVC armoured/unarmoured cables and wires (Aluminium)	Kg	10	23.00	230.00
39	PVC armoured / unarmoured cables and wires (Copper)	Kg	10	88.00	880.00
40	Fluorescent fittings	Each	15	19.00	285.00
41	Ceiling/cabin/bracket/pedestal/table fan.	Each	5	208.00	1,040.00
Total Credit for Dismantled Material					2,435.00
STUDIO 1 GRAND TOTAL					20,19,711.40

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

STUDIO 1 FAÇADE LIGHT					
Sr.No	ELECTRICAL	Unit	Qty	Rate	Amount
1.	Supplying and erecting integrated LED flood light fitting Max. 155W IP65 & IK07 class having pressure die-cast aluminium housing, having system lumens output of Min. 18600 Lumens, min. efficacy of 120 lumen/W, CRI>70, CCT upto 6500K, THD<10%, p.f. >0.90, operating range of 140-270V, inbuilt surge protection of 4 kV, Life class of 50,000 Hrs. at L70B50, including driver with U shaped bracket with 3 Years warranty as per specification No FG-ODF/FLS2.	Each	6	10,357.00	62,142.00
2.	Supplying & erecting LED 40W Linear Wash Light RGBW considering die casting powder coated aluminium having PCB of excellent heat conductivity aluminium ,coefficient of heat conductivity >= 2.0 W/mk along with LED driver & required accessories.	Each	30	24,000.00	7,20,000.00
3.	Supplying & erecting controller & all required accessories like IP 66 junction box,splitter,patch panel,etc suitable for min 30 no's of LED 40W Linear Wash Light RGBW	Each	1	3,50,000.00	3,50,000.00
	Total of Facade Light Fixture				11,32,142.00

STUDIO 2 SOLAR SYSTEM					
Sr.No	ELECTRICAL	Unit	Qty	Rate	Amount
1.	Supplying, installing, testing and commissioning of 60 kWp ON-GRID Solar PV System / Plant consisting Solar PV Poly Crystalline Panel (335 Wp X 75 Nos.) and Solar ON-GRID Inverter of similar capacity (THD<3%) with interconnecting wires / cables up to solar ON GRID inverter, proper base plate, canopy box to house Inverter and necessary accessories i.e. ACDB/ DCDB , MCB etc. wiring up to solar Inverter in casing and capping, display board, sign board, two distinct earthing, lightning arrester, liaisoning charges, remote monitoring system with maintaining card / chip for 5 years including net charges for RMS System, complete up to net meter installation and export to the grid with 5 year ON-SITE warranty and fully comprehensive maintenance contract. Note 1) Rates of item no. 4-5-1 to 4-5-7 are applicable up to 200 kWp. For above 200 kWp non csr item shall be approved by concern Superintending Engineer P.W. Regional Circle (Electrical).	Each	1	12,79,531.00	12,79,531.00
2.	Supplying and erecting iron work, sheet metal work consisting of CRCA sheets, various sections of iron, plates, chequered plates, rods, bars, MS pipes, etc. for panel board or any other purpose with bending, cutting, drilling and welding complete erected at the position with necessary materials duly painted with one coat of red oxide and two coats of enamel paint to match the switchgears or as per directions by the authority.	Kg	315	196.00	61,740.00
3	Supplying and installation of Solar PV Module cleaning unit consisting of nozzles spray, necessary pipes, valves, post, electronic panel board concealed with weather proof cabinet, spreading water periodically for removal of dust, related motor pump, controller, timer and nozzles set suitable for covering 5 KW Solar PV Module. (Approx. 35 Sq. Mtr. PV Module area). Note: For item no. 4-8-8 for additional kW capacity, add Rs. 4500/- for every 5kW.	Each	1	46,485.00	46,485.00
4.	Supplying, erecting & terminating FRLS XLPE insulated, galvanised steel formed wire armoured (strip) cable 1100 V, 3 core 2.5 sq. mm. copper conductor complete erected with glands & lugs, on wall/ trusses/ pole or laid in provided trench/ pipe .	M	200	178.50	35,700.00
5.	Supplying and erecting AC three phase LT CT multifunction net meter DLMS compliance of accuracy class 0.5, 3 x 240V, 50Hz, with backlit LCD display, optical port & RS 232 port (measures import kWh, kVAh, export kWh, kVAh, Net kWh, kVAh, V, I, kW, 6 months history of energy, load survey, TOD, tamper detection & logging, power ON/OFF events, instantaneous parameters of rating 1/5A with display in absence of power) with wiring connections and mounting hardware on provided panels complete with calibration certificate from manufacturer.	Each	1	16,271.00	16,271.00
	Total of Solar System				14,74,237.00

STUDIO 2					
Item No.	Description	Unit	Qty.	Rate	Amount
1	Supplying, erecting & terminating XLPE insulated, galvanised steel formed wire armoured (strip) cable 11 kV(E), 3 x 300 sq. mm. aluminium conductor laid in provided trench / pipe.	M	75	2,764.00	2,07,300.00
2	Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (strip) cable 1100 V, 3½core 240 sq. mm. aluminium conductor complete erected with glands & lugs, on wall/ trusses/pole or laid in provided trench/ pipe. Note: For use of FRLS-XLPE insulation instead of FR-XLPE insulated armoured cable increase rates by 5 %	M	90	1,449.00	1,30,410.00
3	Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (strip) cable 1100 V, 3½core 185 sq. mm. aluminium conductor complete erected with glands & lugs, on wall/ trusses/pole or laid in provided trench/ pipe. Note: For use of FRLS-XLPE insulation instead of FR-XLPE insulated armoured cable increase rates by 5 %	M	100	1,157.10	1,15,710.00
4	Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (strip) cable 1100 V, 3½ core 70 sq. mm. aluminium conductor complete erected with glands & lugs, on wall/ trusses/pole or laid in provided trench/ pipe. Note: For use of FRLS-XLPE insulation instead of FR-XLPE insulated armoured cable increase rates by 5 %	M	500	523.95	2,61,975.00
5	Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (strip) cable 1100 V, 4 core 4 sq. mm. copper conductor complete erected with glands & lugs, on wall/ trusses/ pole or laid in provided trench/ pipe. Note: For use of FRLS-XLPE insulation instead of FR-XLPE insulated armoured cable increase rates by 2 %	M	450	304.98	1,37,241.00
6	Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (strip) cable 1100 V, 3½ core 25 sq. mm. aluminium conductor complete erected with glands & lugs, on wall/ trusses/pole or laid in provided trench/ pipe. Note: For use of FRLS-XLPE insulation instead of FR-XLPE insulated armoured cable increase rates by 5 %	M	100	258.30	25,830.00
Total of Cables					8,78,466.00
7	Providing printed instruction chart for treating persons suffering from electric shock, printed in English & Marathi and duly laminated complete.	Each	1	153.00	153.00
8	Providing pair of duly tested rubber hand gloves as per IS :47705 suitable for working up to 22 kV supply complete.	Each	1	693.00	693.00
9	Supplying standard first aid box with necessary antiseptic cream, medicine for use on wounds due burn, crepe bandage, gauge bandage, medicated ready to use bandage (Band-Aid) adhesive tape for medicinal use, scissors, anti-septic solution,etc. (All above contents shall be of standard makes)	Each	1	922.00	922.00
10	Supplying & erecting Carbon Dioxide (CO2) fire extinguisher of 4.5 kg. capacity cartridge type conform to IS 2878 /15683 complete erected with necessary clamp made from 50 x 6 mm. M. S. flat with nut & bolts routed in wall complete.	Each	1	9,943.00	9,943.00
11	Supplying shock proof leather safety shoes of electrical grade of standard size as IS :11226, 14544 duly tested, with necessary test certificate from manufacturer.	Per Pair	1	2,210.00	2,210.00
12	Supplying and fixing PVC synthetic elastomer electrically insulating mat with class B insulation conforming to IS: 15652 – 2006 having 2.5 mm thickness up to 11 Kv	Sq.m	5	3,695.00	18,475.00
Total of Safety Accessories					32,396.00
13	Supplying and erecting integrated LED Highbay Fitting 135W IP65 & IK08 class having die cast aluminium housing with polycarbonate diffuser with integrated optics, having system lumens output of Min. 20000 Lumens, min. efficacy of 145 lumen/W, CRI>70, CCT upto 6500K, THD<10%, p.f. >0.90, operating range of 140-240V, inbuilt surge protection of 4kV, Life class of 50,000 Hrs. at L50B50 , including driver complete with 3 Year warranty	Each	25	11,844.00	2,96,100.00

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
14	Supplying & erecting inverter LED batten 20W tube light fitting with polycarbonate housing, heat sink, integrated HF electronic driver, Min. 2600mAh Lithium ion Battery with charging time of 8-10 Hours and backup time of Min. 3 hrs. with minimum 25% of initial Watts having luminous efficacy of 100 lumen/watt, CRI>80, CCT of 6500K and THD<=20% having useful life of minimum 25000 hrs. with overheating protection with 2 years warranty.	Each	40	851.00	34,040.00
15	Supplying and erecting bulk head LED fitting max. 10W with high transitivity diffuser with system lumens output of min. 1100 lumens, min. efficacy of 110 lumen/W, CRI>80, CCT upto 6500K, Beam Angle of 120 deg., THD<10%, p.f. >0.95, operating range of 140-260V, in built surge protection of 2.5 kV, Life class of 50,000 Hrs. at L70B50, including driver, IP66, IK09 rated on provided PVC Block / wooden board with 3 years warranty.	Each	20	1,423.00	28,460.00
16	Supplying and erecting LED Strip light 5m Length Max. 45 W IP20 class having minimum lumens output of 800 Lumens/m, min. efficacy of 90 lumen/W, CRI>80, CCT upto 5000K, Beam Angle of 110 deg., THD<10%, p.f.>0.95, operating range of 230-270V, Life class of 30,000 Hrs. at L70B50, including driver with 1 year warranty.	Each	25	1,889.00	47,225.00
Total of Light Fixtures, Fans, etc.					4,05,825.00
	Design,fabrication,assembling,supply,installation,testing and commissioning of cubicle type LT panels suitable for 415 V 3 phase ,4 wire 50 Hz AC supply system fabricated in compartmentised design from CRCA sheet steel of 2 mm thick for frame work IP 52 and covers,3 mm thick for gland plates i/c cleaning and finishing complete 9 tank process for powder coating in approved shade RAL 7032, extendable type TPN aluminium alloy busbars of high conductivity,DMC/SMC busbar supports,with bottom base channel of MS section not less than 75mm X 50 mm X 5 mm thick,entire panel shall have a common copper earthbar of required size at the rear with 2 nos earth studs,solid connection from main busbar to switchgears with require size of aluminium busbar & control wiring with 2.5sqmm FRLS insulated copper conductor cable ,cable alleys ,cable gland plates i/c accessories as per specification and providing switchgears, metering instruments etc. for follwing panels				
17	STUDIO:-2 PCC Panel	Each	1	5,66,213.20	5,66,213.20
	MAIN PANEL (As Per IEC 61439 1 & 2 & Other Standards As Mentioned in Tender Specifications & Master SLD INCOMER: 1 No - 630A TPN MP based MCCB with O/L, S/C, E/F & RS 485 port, of fault breaking capacity 50 KA (Ics=Icu=100% upto 415 V) with R-Y-B & On/off/trip lamps, ammeter, voltmeter & multifunction meter. BUSBAR: 630A, 50kA TPN Aluminium Busbar with heat shrinkable Sleeves with copper earth bus bar. OUTGOING: (50kA Ics=Icu=100% upto 433V) with on/off/trip indication lamps & multifunction meter 15 No : 125 Amps TPN MP MCCB, 25kA with E/F protection 4 No : 63 Amps DP RCCB(100mA), 16kA with E/F protection 60 No : 10Amps SP MCB, 10kA with E/F protection				
Total of Panel					5,66,213.20
18	Providing & erecting hot dipped galvanised ladder type cable tray manufactured from 16 SWG (1.6 mm thick) GI sheet of 200 mm width & 75 mm height complete with necessary coupler plates & hardware..	M	150	676.00	1,01,400.00
19	Providing & erecting hot dipped galvanised ladder type cable tray manufactured from 16 SWG (1.6 mm thick) GI sheet of 300 mm width & 75 mm height complete with necessary coupler plates & hardware.	M	100	846.00	84,600.00
Total of Cable Trays					1,86,000.00
20	Supplying & erecting triple pole and neutral distribution board (TPNDB), SPMCB of 4 ways/phase (12 poles), with door, 1.2mm thickness, surface/flush mounted, IP 43 protection on iron/GI frame (horizontal busbar type)	Each	1	2,391.00	2,391.00
21	Supplying & erecting triple pole and neutral distribution board (TPNDB), SPMCB of 8 ways / phase (24 poles), with door, 1.2mm thickness surface/ flush mounted, IP 43 Protection on iron/GI frame (horizontal busbar type) .	Each	1	3,317.00	3,317.00

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
22	Supplying, erecting & marking TPMCB 40A to 63A, with rated short - circuit breaking capacity (Icn) 10kA in provided distribution board .	Each	1	992.00	992.00
23	Supplying, erecting & marking TPMCB 6A to 32A, with rated short - circuit breaking capacity (Icn) 10kA in provided distribution board	Each	1	751.00	751.00
24	Supplying, erecting & commissioning 2 pole RCCB 16/25A, electromagnetic type with 30/100/300 mA sensitivity with earth leakage trip indication complete.	Each	3	2,136.00	6,408.00
25	Supplying, erecting & commissioning 2 pole RCCB 40A, electromagnetic type with 30/100/300 mA sensitivity with earth leakage trip indication complete .	Each	3	2,327.00	6,981.00
26	Supplying, erecting & marking SPMCB 6A to 32A, C-series with rated short - circuit breaking capacity (Icn) 10kA in provided distribution board .	Each	20	174.00	3,480.00
27	Supplying, erecting & marking SPMCB 6A to 32A, B-series with rated short - circuit breaking capacity (Icn) 10kA in provided distribution board.	Each	4	173.00	692.00
28	Providing & erecting 3 Pole MCCB, 415V, 200A, rated short-circuit breaking capacity 25 kA (Ics=100% of Icu), adjustable thermal (overload) setting and adjustable magnetic setting with provided leads, provision for installation of shunt/UV/trip alarm contact and MCCB should have phase barriers both sides, with insulation withstand capacity 800V, no line-load bias in provided enclosure/panel.	Each	16	13,310.40	2,12,966.40
29	Supplying and erecting SS enclosure of 1.6mm thick with detachable gland plate suitable for 125A to 200A MCCB.	Each	16	1,630.00	26,080.00
Total of Distribution Boards, MCCB, MCB & Accessories					2,64,058.40
30	Providng earthing with galvanized iron earth plate size 60 x 60 x 0.6 cm complete with all materials, testing & recording the results .	Each	6	4,819.00	28,914.00
31	Supplying and erecting GI strip of required size used for earthing on wall and/or any other purpose with necessary GI clamps fixed on wall painted with bituminous paint in an approved manner with joints required.	Kg	420	236.00	99,120.00
32	Supplying and erecting GI earth conductor of required sizes used for earthing or any other purposes on wall with necessary GI clamps fixed on wall/cable/ conduit with screws complete.	Kg	50	168.00	8,400.00
33	Supplying & erecting conventional spike type air termination suitable to carry lightning stroke made up of heavy gauge 40 mm dia copper pipe of standard length with 5 Nos. copper spikes fixed on copper ball as air terminals duly threaded in copper pipe erected on provided foundation complete.	Each	4	6,411.00	25,644.00
Total of Earthing & Lightning Arrestor					1,62,078.00
34	Dismantling the existing cables of all types & size above 10 sq mm up to 50 sq.mm.	M	500	25.00	12,500.00
35	Dismantling the existing cables of all types & size above 50 sq mm.	M	50	34.00	1,700.00
36	Dismantling the existing W.T. fluorescent fitting / S.V./ M.V. / M.H. lamp/LED fitting from wall with brackets and making the site as original complete.	Each	100	52.00	5,200.00
37	Dismantling any type of unserviceable feeder pillar, switch gear panel, capacitor panel, metering panel, bus-bar panel, electronic equipment panel, etc. and making the site as required, Approx. size (up to 200cm. x 90 cm x 45 cm and above) - Big Cupboard	Each	1	2,089.00	2,089.00
Total of Dismantling					21,489.00
38	PVC armoured/unarmoured cables and wires (Aluminium)	Kg	10	23.00	230.00
39	PVC armoured / unarmoured cables and wires (Copper)	Kg	10	88.00	880.00
40	Fluorescent fittings	Each	15	19.00	285.00
41	Ceiling/cabin/bracket/pedestal/table fan.	Each	5	208.00	1,040.00
Total Credit for Dismantled Material					2,435.00
STUDIO 2 GRAND TOTAL					25,16,525.60

STUDIO 2 FAÇADE LIGHT					
Sr.No	ELECTRICAL	Unit	Qty	Rate	Amount
1.	Supplying and erecting integrated LED flood light fitting Max. 155W IP65 & IK07 class having pressure die-cast aluminium housing, having system lumens output of Min. 18600 Lumens, min. efficacy of 120 lumen/W, CRI>70, CCT upto 6500K,	Each	6	10,357.00	62,142.00

	THD<10%, p.f. >0.90, operating range of 140-270V, inbuilt surge protection of 4 kV, Life class of 50,000 Hrs. at L70B50, including driver with U shaped bracket with 3 Years warranty as per specification No FG-ODF/FLS2.				
2.	Supplying & erecting LED 40W Linear Wash Light RGBW considering die casting powder coated aluminium having PCB of excellent heat conductivity aluminium ,coefficient of heat conductivity >= 2.0 W/mk along with LED driver & required accessories.	Each	30	24,000.00	7,20,000.00
3.	Supplying & erecting controller & all required accessories like IP 66 junction box,splitter,patch panel,etc suitable for min 30 no's of LED 40W Linear Wash Light RGBW	Each	1	3,50,000.00	3,50,000.00
	Total of Facade Light Fixture				11,32,142.00

STUDIO 2 SOLAR SYSTEM					
Sr.No	ELECTRICAL	Unit	Qty	Rate	Amount
1.	Supplying, installing, testing and commissioning of 60 kWp ON-GRID Solar PV System / Plant consisting Solar PV Poly Crystalline Panel (335 Wp X 75 Nos.) and Solar ON-GRID Inverter of similar capacity (THD<3%) with interconnecting wires / cables up to solar ON GRID inverter, proper base plate, canopy box to house Inverter and necessary accessories i.e. ACDB/ DCDB , MCB etc. wiring up to solar Inverter in casing and capping, display board, sign board, two distinct earthing, lightning arrester, liaisoning charges, remote monitoring system with maintaining card / chip for 5 years including net charges for RMS System, complete up to net meter installation and export to the grid with 5 year ON-SITE warranty and fully comprehensive maintenance contract. Note 1) Rates of item no. 4-5-1 to 4-5-7 are applicable up to 200 kWp. For above 200 kWp non csr item shall be approved by concern Superintending Engineer P.W. Regional Circle (Electrical).	Each	1	12,79,531.00	12,79,531.00
2.	Supplying and erecting iron work, sheet metal work consisting of CRCA sheets, various sections of iron, plates, chequered plates, rods, bars, MS pipes, etc. for panel board or any other purpose with bending, cutting, drilling and welding complete erected at the position with necessary materials duly painted with one coat of red oxide and two coats of enamel paint to match the switchgears or as per directions by the authority.	Kg	400	196.00	78,400.00
3	Supplying and installation of Solar PV Module cleaning unit consisting of nozzles spray, necessary pipes, valves, post, electronic panel board concealed with weather proof cabinet, spreading water periodically for removal of dust, related motor pump, controller, timer and nozzles set suitable for covering 5 KW Solar PV Module. (Approx. 35 Sq. Mtr. PV Module area). Note: For item no. 4-8-8 for additional kW capacity, add Rs. 4500/- for every 5kW.	Each	1	46,485.00	46,485.00
4.	Supplying, erecting & terminating FRLS XLPE insulated, galvanised steel formed wire armoured (strip) cable 1100 V, 3 core 2.5 sq. mm. copper conductor complete erected with glands & lugs, on wall/ trusses/ pole or laid in provided trench/ pipe .	M	300	178.50	53,550.00
5.	Supplying and erecting AC three phase LT CT multifunction net meter DLMS compliance of accuracy class 0.5, 3 x 240V, 50Hz, with backlit LCD display, optical port & RS 232 port (measures import kWh, kVAh, export kWh, kVAh, Net kWh, kVAh, V, I, kW, 6 months history of energy, load survey, TOD, tamper detection & logging, power ON/OFF events, instantaneous parameters of rating 1/5A with display in absence of power) with wiring connections and mounting hardware on provided panels complete with calibration certificate from manufacturer.	Each	1	16,271.00	16,271.00
	Total of Solar System				14,74,237.00

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

STUDIO 5					
Item No.	Description	Unit	Qty.	Rate	Amount
1	Supplying , erecting & terminating XLPE insulated, galvanised steel formed wire armoured (strip) cable 11 kV(E), 3 x 300 sq. mm. aluminium conductor laid in provided trench / pipe.	M	60	2,764.00	1,65,840.00
2	Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (strip) cable 1100 V, 3½ core 300 sq. mm. aluminium conductor complete erected with glands & lugs, on wall/ trusses/pole or laid in provided trench/ pipe. Note: For use of FRLS-XLPE insulation instead of FR-XLPE insulated armoured cable increase rates by 5 %	M	75	1,731.45	1,29,858.75
3	Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (strip) cable 1100 V, 3½core 240 sq. mm. aluminium conductor complete erected with glands & lugs, on wall/ trusses/pole or laid in provided trench/ pipe. Note: For use of FRLS-XLPE insulation instead of FR-XLPE insulated armoured cable increase rates by 5 %	M	75	1,449.00	1,08,675.00
4	Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (strip) cable 1100 V, 3½core 185 sq. mm. aluminium conductor complete erected with glands & lugs, on wall/ trusses/pole or laid in provided trench/ pipe. Note: For use of FRLS-XLPE insulation instead of FR-XLPE insulated armoured cable increase rates by 5 %	M	200	1,157.10	2,31,420.00
5	Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (strip) cable 1100 V, 3½ core 70 sq. mm. aluminium conductor complete erected with glands & lugs, on wall/ trusses/pole or laid in provided trench/ pipe. Note: For use of FRLS-XLPE insulation instead of FR-XLPE insulated armoured cable increase rates by 5 %	M	450	508.98	2,29,041.00
6	Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (strip) cable 1100 V, 4 core 4 sq. mm. copper conductor complete erected with glands & lugs, on wall/ trusses/ pole or laid in provided trench/ pipe. Note: For use of FRLS-XLPE insulation instead of FR-XLPE insulated armoured cable increase rates by 2 %	M	400	304.98	1,21,992.00
7	Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (strip) cable 1100 V, 3½ core 25 sq. mm. aluminium conductor complete erected with glands & lugs, on wall/ trusses/pole or laid in provided trench/ pipe. Note: For use of FRLS-XLPE insulation instead of FR-XLPE insulated armoured cable increase rates by 5 %	M	100	258.30	26.121.31
Total of Cables					10,13,039.06
8	Providing printed instruction chart for treating persons suffering from electric shock, printed in English & Marathi and duly laminated complete.	Each	1	153.00	153.00
9	Providing pair of duly tested rubber hand gloves as per IS :47705 suitable for working up to 22 kV supply complete.	Each	1	693.00	693.00
10	Supplying standard first aid box with necessary antiseptic cream, medicine for use on wounds due burn, crepe bandage, gauge bandage, medicated ready to use bandage (Band-Aid) adhesive tape for medicinal use, scissors, anti-septic solution,etc. (All above contents shall be of standard makes)	Each	1	922.00	922.00
11	S u p p l y i n g & erecting Carbon Dioxide (CO2) fire extinguisher of 4.5 kg. capacity cartridge type conform to IS 2878 /15683 complete erected with necessary clamp made from 50 x 6 mm. M. S. flat with nut & bolts routed in wall complete.	Each	1	9,943.00	9,943.00
12	Supplying shock proof leather safety shoes of electrical grade of standard size as IS :11226, 14544 duly tested, with necessary test certificate from manufacturer.	Per Pair	1	2,210.00	2,210.00
13	Supplying and fixing PVC synthetic elastomer electrically insulating mat with class B insulation conforming to IS: 15652 – 2006 having 2.5 mm thickness up to 11 Kv	Sq.m	5	3,695.00	18,475.00
Total of Safety Accessories					32,396.00
14	Supplying and erecting integrated LED Highbay Fitting 135W IP65 & IK08 class having die cast aluminium housing with polycarbonate diffuser with integrated optics, having system lumens output of Min. 20000 Lumens, min. efficacy of 145	Each	25	11,844.00	2,96,100.00
CONTRACTOR		NO. OF CORRECTIONS		DEPUTY ENGINEER (CIVIL)	

Item No.	Description	Unit	Qty.	Rate	Amount
	lumen/W, CRI>70, CCT upto 6500K, THD<10%, p.f. >0.90, operating range of 140-240V, inbuilt surge protection of 4kV, Life class of 50,000 Hrs. at L50B50 , including driver complete with 3 Year warranty				
15	Supplying & erecting inverter LED batten 20W tube light fitting with polycarbonate housing, heat sink, integrated HF electronic driver, Min. 2600mAh Lithium ion Battery with charging time of 8-10 Hours and backup time of Min. 3 hrs. with minimum 25% of initial Watts having luminous efficacy of 100 lumen/watt, CRI>80, CCT of 6500K and THD<=20% having useful life of minimum 25000 hrs. with overheating protection with 2 years warranty.	Each	34	851.00	28,934.00
16	Supplying and erecting LED square / circular Max. 25 W down lighter/ Panel Light having pressure die-cast aluminium housing, polystyrene diffuser having system lumens output of Min. 2750 Lumens, min. efficacy of 110 lumen/W, CRI>80, CCT upto 6500K, Beam Angle of 120 deg., max. ripple of 5%, THD<10%, p.f. >0.95, operating range of 120-270V, surge protection of 2.5 kV, Life class of 50,000 Hrs. at L70B50, including driver, having mounting arrangement with board for surface type or spring loaded mounting clips complete with 3 years warranty.	Each	19	1,945.00	36,955.00
17	Supplying & erecting inverter LED batten 18W tube light fitting with polycarbonate housing, heat sink, integrated HF electronic driver, Min. 2600 mAh Lithium ion Battery with charging time of 8-10 Hours and backup time of Min. 3 hrs. with minimum 25% of initial Watts having luminous efficacy of 100 lumen/watt, CRI>80, CCT of 6500K and THD<=20% having useful life of minimum 25000 hrs. with overheating protection with 2 years warranty.	Each	39	851.00	33,189.00
18	Supplying and erecting bulk head LED fitting max. 10W with high transitivity diffuser with system lumens output of min. 1100 lumens, min. efficacy of 110 lumen/W, CRI>80, CCT upto 6500K, Beam Angle of 120 deg., THD<10%, p.f. >0.95, operating range of 140-260V, in built surge protection of 2.5 kV, Life class of 50,000 Hrs. at L70B50, including driver, IP66, IK09 rated on provided PVC Block / wooden board with 3 years warranty.	Each	45	1,423.00	64,035.00
19	Supplying and erecting LED Strip light 5m Length Max. 45 W IP20 class having minimum lumens output of 800 Lumens/m, min. efficacy of 90 lumen/W, CRI>80, CCT upto 5000K, Beam Angle of 110 deg., THD<10%, p.f.>0.95, operating range of 230-270V, Life class of 30,000 Hrs. at L70B50, including driver with 1 year warranty.	Each	25	1,889.00	47,225.00
20	Making suitable size recess in any type of false ceiling for erection of flush type down lighter and finishing the background to match the original surface upto 20W.	Each	19	63.00	1,197.00
Total of Light Fixtures, Fans, etc.					5,07,635.00
	Design,fabrication,assembling,supply,installation,testing and commissioning of cubicle type LT panels suitable for 415 V 3 phase ,4 wire 50 Hz AC supply system fabricated in compartmentised design from CRCA sheet steel of 2 mm thick for frame work IP 52 and covers,3 mm thick for gland plates i/c cleaning and finishing complete 9 tank process for powder coating in approved shade RAL 7032, extendable type TPN aluminium alloy busbars of high conductivity,DMC/SMC busbar supports,with bottom base channel of MS section not less than 75mm X 50 mm X 5 mm thick,entire panel shall have a common copper earthbar of required size at the rear with 2 nos earth studs,solid connection from main busbar to switchgears with require size of aluminium busbar & control wiring with 2.5sqmm FRLS insulated copper conductor cable ,cable alleys ,cable gland plates i/c accessories as per specification and providing switchgears, metering instruments etc. for follwing panels				
21	STUDIO:-5 PCC Panel	Each	1	4,43,756.40	4,43,756.40
	MAIN PANEL (As Per IEC 61439 1 & 2 & Other Standards As Mentioned in Tender Specifications & Master SLD INCOMER: 1 No - 630A TPN MP based MCCB with O/L, S/C, E/F & RS 485 port, of fault breaking capacity 50 KA (Ics=Icu=100% upto 415 V) with R-Y-B & On/off/trip lamps, ammeter, voltmeter & multifunction meter.				

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
	BUSBAR: 630A, 50kA TPN Aluminium Busbar with heat shrinkable Sleeves with copper earth bus bar. OUTGOING: (50kA Ics=Icu=100% upto 433V) with on/off/trip indication lamps & multifunction meter 15 No : 100 Amps TPN MP MCCB, 25kA with E/F protection				
Total of Panel					4,43,756.40
22	Providing & erecting hot dipped galvanised ladder type cable tray manufactured from 16 SWG (1.6 mm thick) GI sheet of 200 mm width & 75 mm height complete with necessary coupler plates & hardware..	M	150	676.00	1,01,400.00
23	Providing & erecting hot dipped galvanised ladder type cable tray manufactured from 16 SWG (1.6 mm thick) GI sheet of 300 mm width & 75 mm height complete with necessary coupler plates & hardware.	M	100	846.00	84,600.00
Total of Cable Trays					1,86,000.00
24	Supplying & erecting triple pole and neutral distribution board (TPNDB), SPMCB of 4 ways/phase (12 poles), with door, 1.2mm thickness, surface/flush mounted, IP 43 protection on iron/GI frame (horizontal busbar type)	Each	1	2,391.00	2,391.00
25	Supplying & erecting triple pole and neutral distribution board (TPNDB), SPMCB of 8 ways / phase (24 poles), with door, 1.2mm thickness surface/ flush mounted, IP 43 Protection on iron/GI frame (horizontal busbar type)	Each	4	3,317.00	13,268.00
26	Supplying, erecting & marking TPMCB 40A to 63A, with rated short - circuit breaking capacity (Icn) 10kA in provided distribution board	Each	1	992.00	992.00
27	Supplying, erecting & marking TPMCB 6A to 32A, with rated short - circuit breaking capacity (Icn) 10kA in provided distribution board	Each	4	751.00	3,004.00
28	Supplying, erecting & commissioning 2 pole RCCB 40A, electromagnetic type with 30/100/300 mA sensitivity with earth leakage trip indication complete	Each	3	2,136.00	6,408.00
29	Supplying, erecting & commissioning 2 pole RCCB 16/25A, electromagnetic type with 30/100/300 mA sensitivity with earth leakage trip indication complete.	Each	12	2,327.00	27,924.00
30	Supplying, erecting & marking SPMCB 6A to 32A, C-series with rated short - circuit breaking capacity (Icn) 10kA in provided distribution board	Each	54	174.00	9,396.00
31	Supplying, erecting & marking SPMCB 6A to 32A, B-series with rated short - circuit breaking capacity (Icn) 10kA in provided distribution board	Each	12	173.00	2,076.00
32	Providing & erecting 3 Pole MCCB, 415 V, 100A, rated short-circuit breaking capacity 25 kA (Ics=100% of Icu), adjustable thermal (overload) setting and fixed magnetic setting with provided leads, provision for installation of shunt/UV/trip alarm contact. MCCB with phase barriers on both sides, insulation withstand capacity 800V, no line-load bias in provided enclosure/panel.	Each	15	6,969.60	1,04,544.00
33	Supplying and erecting SS enclosure of 1.6mm thick with detachable gland plate suitable for upto 100A MCCB.	Each	15	988.00	14,820.00
Total of Distribution Boards, MCCB, MCB & Accessories					1,84,823.00
34	Providing earthing with galvanized iron earth plate size 60 x 60 x 0.6 cm complete with all materials, testing & recording the results .	Each	6	4,819.00	28,914.00
35	Supplying and erecting GI strip of required size used for earthing on wall and/or any other purpose with necessary GI clamps fixed on wall painted with bituminous paint in an approved manner with joints required.	Kg	420	236.00	99,120.00
36	Supplying and erecting GI earth conductor of required sizes used for earthing or any other purposes on wall with necessary GI clamps fixed on wall/cable/ conduit with screws complete.	Kg	50	168.00	8,400.00
37	Supplying & erecting conventional spike type air termination suitable to carry lightning stroke made up of heavy gauge 40 mm dia copper pipe of standard length with 5 Nos. copper spikes fixed on copper ball as air terminals duly threaded in copper pipe erected on provided foundation complete.	Each	4	6,411.00	25,644.00
Total of Earthing & Lightning Arrestor					1,62,078.00
38	Dismantling the existing cables of all types & size above 10 sq mm up to 50 sq.mm.	M	50	25.00	1,250.00
39	Dismantling the existing cables of all types & size above 50 sq mm.	M	500	34.00	17,000.00

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
40	Dismantling the existing W.T. fluorescent fitting / S.V./ M.V. / M.H. lamp/LED fitting from wall with brackets and making the site as original complete.	Each	100	52.00	5,200.00
41	Dismantling any type of unserviceable feeder pillar, switch gear panel, capacitor panel, metering panel, bus-bar panel, electronic equipment panel, etc. and making the site as required, Approx. size (up to 200cm. x 90 cm x 45 cm and above) - Big Cupboard	Each	1	2,089.00	2,089.00
Total of Dismantling					25,539.00
42	PVC armoured/unarmoured cables and wires (Aluminium)	Kg	10	23.00	230.00
43	PVC armoured / unarmoured cables and wires (Copper)	Kg	10	88.00	880.00
44	Fluorescent fittings	Each	15	19.00	285.00
45	Ceiling/cabin/bracket/pedestal/table fan.	Each	5	208.00	1,040.00
Total Credit for Dismantled Material					2,435.00
STUDIO 5 GRAND TOTAL					25,55,266.46

STUDIO 5 FAÇADE LIGHT					
Sr.No	ELECTRICAL	Unit	Qty	Rate	Amount
1.	Supplying and erecting integrated LED flood light fitting Max. 155W IP65 & IK07 class having pressure die-cast aluminium housing, having system lumens output of Min. 18600 Lumens, min. efficacy of 120 lumen/W, CRI>70, CCT upto 6500K, THD<10%, p.f. >0.90, operating range of 140-270V, inbuilt surge protection of 4 kV, Life class of 50,000 Hrs. at L70B50, including driver with U shaped bracket with 3 Years warranty as per specification No FG-ODF/FLS2.	Each	6	10,357.00	62,142.00
2.	Supplying & erecting LED 40W Linear Wash Light RGBW considering die casting powder coated aluminium having PCB of excellent heat conductivity aluminium ,coefficient of heat conductivity >= 2.0 W/mk along with LED driver & required accessories.	Each	30	24,000.00	7,20,000.00
3.	Supplying & erecting controller & all required accessories like IP 66 junction box,splitter,patch panel,etc suitable for min 30 no's of LED 40W Linear Wash Light RGBW	Each	1	3,50,000.00	3,50,000.00
Total of Facade Light Fixture					11,32,142.00

STUDIO 5 SOLAR SYSTEM					
Sr.No	ELECTRICAL	Unit	Qty	Rate	Amount
1.	Supplying, installing, testing and commissioning of 10 kWp ON-GRID Solar PV System / Plant consisting Solar PV Poly Crystalline Panel (335 Wp X 30 Nos.) and Solar ON-GRID Inverter of similar capacity (THD<3%) with interconnecting wires / cables up to solar ON GRID inverter, proper base plate, canopy box to house Inverter and necessary accessories i.e. ACDB/ DCDB , MCB etc. wiring up to solar Inverter in casing and capping, display board, sign board, two distinct earthing, lightning arrester, liaisoning charges, remote monitoring system with maintaining card/chip for 5 years including net charges for RMS System, complete up to net meter installation and export to the grid with 5 year ON-SITE warranty and fully comprehensive maintenance contract Note 1) Rates of item no. 4-5-1 to 4-5-7 are applicable up to 200 kWp. For above 200 kWp non csr item shall be approved by concern Superintending Engineer P.W. Regional Circle (Electrical).).	Each	1	5,53,760.00	5,53,760.00
2.	Supplying and erecting iron work, sheet metal work consisting of CRCA sheets, various sections of iron, plates, chequered plates, rods, bars, MS pipes, etc. for panel board or any other purpose with bending, cutting, drilling and welding complete erected at the position with necessary materials duly painted with one coat of red oxide and two coats of enamel paint to match the switchgears or as per directions by the authority.	Kg	315	196.00	61,740.00
3	Supplying and installation of Solar PV Module cleaning unit consisting of nozzles spray, necessary pipes, valves, post, electronic panel board concealed with weather proof cabinet, spreading water periodically for removal of dust, related motor pump, controller, timer and nozzles set suitable for covering 5	Each	1	46,485.00	46,485.00

	KW Solar PV Module. (Approx. 35 Sq. Mtr. PV Module area). Note: For item no. 4-8-8 for additional kW capacity, add Rs. 4500/- for every 5kW.				
4.	Supplying, erecting & terminating FRLS XLPE insulated, galvanised steel formed wire armoured (strip) cable 1100 V, 3 core 2.5 sq. mm. copper conductor complete erected with glands & lugs, on wall/ trusses/ pole or laid in provided trench/ pipe .	M	200	178.50	35,700.00
5.	Supplying and erecting AC three phase LT CT multifunction net meter DLMS compliance of accuracy class 0.5, 3 x 240V, 50Hz, with backlit LCD display, optical port & RS 232 port (measures import kWh, kVAh, export kWh, kVAh, Net kWh, kVAh, V, I, kW, 6 months history of energy, load survey, TOD, tamper detection & logging, power ON/OFF events, instantaneous parameters of rating 1/5A with display in absence of power) with wiring connections and mounting hardware on provided panels complete with calibration certificate from manufacturer.	Each	1	16,271.00	16,271.00
	Total of Solar System				7,13,956.00

STUDIO 7					
Item No.	Description	Unit	Qty.	Rate	Amount
1	Supplying , erecting & terminating XLPE insulated, galvanised steel formed wire armoured (strip) cable 11 kV(E), 3 x 300 sq. mm. aluminium conductor laid in provided trench / pipe.	M	60	2,764.00	1,65,840.00
2	Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (strip) cable 1100 V, 3½core 240 sq. mm. aluminium conductor complete erected with glands & lugs, on wall/ trusses/pole or laid in provided trench/ pipe. Note: For use of FRLS-XLPE insulation instead of FR-XLPE insulated armoured cable increase rates by 5 %	M	60	1,449.00	86,940.00
3	Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (strip) cable 1100 V, 3½ core 300 sq. mm. aluminium conductor complete erected with glands & lugs, on wall/ trusses/pole or laid in provided trench/ pipe. Note: For use of FRLS-XLPE insulation instead of FR-XLPE insulated armoured cable increase rates by 5 %	M	75	1,731.45	1,29,858.75
4	Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (strip) cable 1100 V, 3½core 185 sq. mm. aluminium conductor complete erected with glands & lugs, on wall/ trusses/pole or laid in provided trench/ pipe. Note: For use of FRLS-XLPE insulation instead of FR-XLPE insulated armoured cable increase rates by 5 %	M	200	1,157.10	2,31,420.00
5	Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (strip) cable 1100 V, 3½ core 70 sq. mm. aluminium conductor complete erected with glands & lugs, on wall/ trusses/pole or laid in provided trench/ pipe. Note: For use of FRLS-XLPE insulation instead of FR-XLPE insulated armoured cable increase rates by 5 %	M	450	523.95	2,35,777.50
6	Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (strip) cable 1100 V, 4 core 4 sq. mm. copper conductor complete erected with glands & lugs, on wall/ trusses/ pole or laid in provided trench/ pipe. Note: For use of FRLS-XLPE insulation instead of FR-XLPE insulated armoured cable increase rates by 2 %	M	400	304.98	1,21,992.00
7	Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (strip) cable 1100 V, 3½ core 25 sq. mm. aluminium conductor complete erected with glands & lugs, on wall/ trusses/pole or laid in provided trench/ pipe. Note: For use of FRLS-XLPE insulation instead of FR-XLPE insulated armoured cable increase rates by 5 %	M	100	258.30	25,830.00
Total of Cables					9,97,658.25
8	Providing printed instruction chart for treating persons suffering from electric shock, printed in English & Marathi and duly laminated complete.	Each	1	153.00	153.00
9	Providing pair of duly tested rubber hand gloves as per IS :47705 suitable for working up to 22 kV supply complete.	Each	1	693.00	693.00

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
10	Supplying standard first aid box with necessary antiseptic cream, medicine for use on wounds due burn, crepe bandage, gauge bandage, medicated ready to use bandage (Band-Aid) adhesive tape for medicinal use, scissors, anti-septic solution,etc. (All above contents shall be of standard makes)	Each	1	922.00	922.00
11	S u p p l y i n g & erecting Carbon Dioxide (CO2) fire extinguisher of 4.5 kg. capacity cartridge type conform to IS 2878 /15683 complete erected with necessary clamp made from 50 x 6 mm. M. S. flat with nut & bolts routed in wall complete.	Each	1	9,943.00	9,943.00
12	Supplying shock proof leather safety shoes of electrical grade of standard size as IS :11226, 14544 duly tested, with necessary test certificate from manufacturer.	Per Pair	1	2,210.00	2,210.00
13	Supplying and fixing PVC synthetic elastomer electrically insulating mat with class B insulation conforming to IS: 15652 – 2006 having 2.5 mm thickness up to 11 Kv	Sq.m	5	3,695.00	18,475.00
Total of Safety Accessories					32,396.00
14	Supplying & erecting inverter LED batten 20W tube light fitting with polycarbonate housing, heat sink, integrated HF electronic driver, Min. 2600mAh Lithium ion Battery with charging time of 8-10 Hours and backup time of Min. 3 hrs. with minimum 25% of initial Watts having luminous efficacy of 100 lumen/watt, CRI>80, CCT of 6500K and THD<=20% having useful life of minimum 25000 hrs. with overheating protection with 2 years warranty.	Each	30	851.00	25,530.00
15	Supplying and erecting integrated LED Highbay Fitting 135W IP65 & IK08 class having die cast aluminium housing with polycarbonate diffuser with integrated optics, having system lumens output of Min. 20000 Lumens, min. efficacy of 145 lumen/W, CRI>70, CCT upto 6500K, THD<10%, p.f. >0.90, operating range of 140-240V, inbuilt surge protection of 4kV, Life class of 50,000 Hrs. at L50B50 , including driver complete with 3 Year warranty	Each	30	11,844.00	3,55,320.00
16	Supplying and erecting LED square / circular Max. 25 W down lighter/ Panel Light having pressure die-cast aluminium housing, polystyrene diffuser having system lumens output of Min. 2750 Lumens, min. efficacy of 110 lumen/W, CRI>80, CCT upto 6500K, Beam Angle of 120 deg., max. ripple of 5%, THD<10%, p.f. >0.95, operating range of 120-270V, surge protection of 2.5 kV, Life class of 50,000 Hrs. at L70B50, including driver, having mounting arrangement with board for surface type or spring loaded mounting clips complete with 3 years warranty.	Each	36	1,945.00	70,020.00
17	Supplying & erecting inverter LED batten 18W tube light fitting with polycarbonate housing, heat sink, integrated HF electronic driver, Min. 2600 mAh Lithium ion Battery with charging time of 8-10 Hours and backup time of Min. 3 hrs. with minimum 25% of initial Watts having luminous efficacy of 100 lumen/watt, CRI>80, CCT of 6500K and THD<=20% having useful life of minimum 25000 hrs. with overheating protection with 2 years warranty.	Each	42	851.00	35,742.00
18	Supplying and erecting LED Strip light 5m Length Max. 45 W IP20 class having minimum lumens output of 800 Lumens/m, min. efficacy of 90 lumen/W, CRI>80, CCT upto 5000K, Beam Angle of 110 deg., THD<10%, p.f.>0.95, operating range of 230-270V, Life class of 30,000 Hrs. at L70B50, including driver with 1 year warranty.	Each	25	1,889.00	47,225.00
19	Supplying and erecting bulk head LED fitting max. 10W with high transitivity diffuser with system lumens output of min. 1100 lumens, min. efficacy of 110 lumen/W, CRI>80, CCT upto 6500K, Beam Angle of 120 deg., THD<10%, p.f. >0.95, operating range of 140-260V, in built surge protection of 2.5 kV, Life class of 50,000 Hrs. at L70B50, including driver, IP66, IK09 rated on provided PVC Block / wooden board with 3 years warranty.	Each	22	1,423.00	31,306.00
Total of Light Fixtures, Fans, etc.					5,65,143.00
	Design,fabrication,assembling,supply,installation,testing and commissioning of cubicle type LT panels suitable for 415 V 3 phase ,4 wire 50 Hz AC supply system fabricated in compartmentised design from CRCA sheet steel of 2 mm thick for frame work IP 52 and covers,3 mm thick for gland plates i/c				

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item	Description	Unit	Qty.	Rate	Amount
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No.					
	cleaning and finishing complete 9 tank process for powder coating in approved shade RAL 7032, extendable type TPN aluminium alloy busbars of high conductivity, DMC/SMC busbar supports, with bottom base channel of MS section not less than 75mm X 50 mm X 5 mm thick, entire panel shall have a common copper earthbar of required size at the rear with 2 nos earth studs, solid connection from main busbar to switchgears with require size of aluminium busbar & control wiring with 2.5sqmm FRLS insulated copper conductor cable, cable alleys, cable gland plates i/c accessories as per specification and providing switchgears, metering instruments etc. for following panels				
20	STUDIO:-7 PCC Panel	Each	1	5,79,758.00	5,79,758.00
	MAIN PANEL (As Per IEC 61439 1 & 2 & Other Standards As Mentioned in Tender Specifications & Master SLD INCOMER: 1 No - 630A TPN TM based MCCB with O/L, S/C, E/F & RS 485 port, of fault breaking capacity 50 KA (Ics=Icu=100% upto 415 V) with R-Y-B & On/off/trip lamps, ammeter, voltmeter & multifunction meter. BUSBAR: 630A, 50kA TPN Aluminium Busbar with heat shrinkable Sleeves with copper earth bus bar. OUTGOING: (50kA Ics=Icu=100% upto 433V) with on/off/trip indication lamps & multifunction meter 15 No : 100 Amps TPN TM MCCB, 50kA with E/F protection				
21	STUDIO:-7 HVAC Panel	Each	1	9,69,507.75	9,69,507.75
	MAIN PANEL (As Per IEC 61439 1 & 2 & Other Standards As Mentioned in Tender Specifications & Master SLD INCOMER: 1 No - 630A TPN MP based MCCB with O/L, S/C, E/F & RS 485 port, of fault breaking capacity 50 KA (Ics=Icu=100% upto 415 V) with R-Y-B & On/off/trip lamps, ammeter, voltmeter & multifunction meter. BUSBAR: 630A, 50kA TPN Aluminium Busbar with heat shrinkable Sleeves with copper earth bus bar. OUTGOING: (50kA Ics=Icu=100% upto 433V) with on/off/trip indication lamps & multifunction meter 3 No : 630 Amps FP MP ACB, 50kA with E/F protection 7 No : 400 Amps FP MP MCCB, 50kA with E/F protection				
Total of Panel					15,49,265.75
22	Providing & erecting hot dipped galvanised ladder type cable tray manufactured from 16 SWG (1.6 mm thick) GI sheet of 200 mm width & 75 mm height complete with necessary coupler plates & hardware..	M	150	676.00	1,01,400.00
23	Providing & erecting hot dipped galvanised ladder type cable tray manufactured from 16 SWG (1.6 mm thick) GI sheet of 300 mm width & 75 mm height complete with necessary coupler plates & hardware.	M	100	846.00	84,600.00
Total of Cable Trays					1,86,000.00
24	Supplying & erecting triple pole and neutral distribution board (TPNDB), SPMCB of 4 ways/phase (12 poles), with door, 1.2mm thickness, surface/flush mounted, IP 43 protection on iron/GI frame (horizontal busbar type)	Each	1	2,391.00	2,391.00
25	Supplying & erecting triple pole and neutral distribution board (TPNDB), SPMCB of 8 ways / phase (24 poles), with door, 1.2mm thickness surface/ flush mounted, IP 43 Protection on iron/GI frame (horizontal busbar type)	Each	4	3,317.00	13,268.00
26	Supplying, erecting & marking TPMCB 40A to 63A, with rated short - circuit breaking capacity (Icn) 10kA in provided distribution board	Each	1	992.00	992.00
27	Supplying, erecting & marking TPMCB 6A to 32A, with rated short - circuit breaking capacity (Icn) 10kA in provided distribution board	Each	4	751.00	3,004.00
28	Supplying, erecting & commissioning 2 pole RCCB 40A, electromagnetic type with 30/100/300 mA sensitivity with earth leakage trip indication complete	Each	3	2,136.00	6,408.00
29	Supplying, erecting & commissioning 2 pole RCCB 16/25A, electromagnetic type with 30/100/300 mA sensitivity with earth leakage trip indication complete.	Each	12	2,327.00	27,924.00

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item	Description	Unit	Qty.	Rate	Amount
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No.					
30	Supplying, erecting & marking SPMCB 6A to 32A, C-series with rated short - circuit breaking capacity (Icn) 10kA in provided distribution board	Each	54	174.00	9,396.00
31	Supplying, erecting & marking SPMCB 6A to 32A, B-series with rated short - circuit breaking capacity (Icn) 10kA in provided distribution board	Each	12	173.00	2,076.00
32	Providing & erecting 3 Pole MCCB, 415V, 200A, rated short-circuit breaking capacity 25 kA (Ics=100% of Icu), adjustable thermal (overload) setting and adjustable magnetic setting with provided leads, provision for installation of shunt/UV/trip alarm contact and MCCB should have phase barriers both sides, with insulation withstand capacity 800V, no line-load bias in provided enclosure/panel.	Each	16	13,310.40	2,12,966.40
33	Supplying and erecting SS enclosure of 1.6mm thick with detachable gland plate suitable for 125A to 200A MCCB.	Each	16	1,630.00	26,080.00
Total of Distribution Boards, MCCB, MCB & Accessories					3,04,505.40
34	Providing earthing with galvanized iron earth plate size 60 x 60 x 0.6 cm complete with all materials, testing & recording the results .	Each	6	4,819.00	28,914.00
35	Supplying and erecting GI strip of required size used for earthing on wall and/or any other purpose with necessary GI clamps fixed on wall painted with bituminous paint in an approved manner with joints required.	Kg	420	236.00	99,120.00
36	Supplying and erecting GI earth conductor of required sizes used for earthing or any other purposes on wall with necessary GI clamps fixed on wall/cable/ conduit with screws complete.	Kg	50	168.00	8,400.00
37	Supplying & erecting conventional spike type air termination suitable to carry lightning stroke made up of heavy gauge 40 mm dia copper pipe of standard length with 5 Nos. copper spikes fixed on copper ball as air terminals duly threaded in copper pipe erected on provided foundation complete.	Each	4	6,411.00	25,644.00
Total of Earthing & Lightning Arrestor					1,62,078.00
38	Dismantling the existing cables of all types & size above 10 sq mm up to 50 sq.mm.	M	50	25.00	1,250.00
39	Dismantling the existing cables of all types & size above 50 sq mm.	M	400	34.00	13,600.00
40	Dismantling the existing W.T. fluorescent fitting / S.V./ M.V. / M.H. lamp/LED fitting from wall with brackets and making the site as original complete.	Each	80	52.00	4,160.00
41	Dismantling any type of unserviceable feeder pillar, switch gear panel, capacitor panel, metering panel, bus-bar panel, electronic equipment panel, etc. and making the site as required, Approx. size (up to 200cm. x 90 cm x 45 cm and above) - Big Cupboard	Each	1	2,089.00	2,089.00
Total of Dismantling					21,099.00
42	PVC armoured/unarmoured cables and wires (Aluminium)	Kg	10	23.00	230.00
43	PVC armoured / unarmoured cables and wires (Copper)	Kg	10	88.00	880.00
44	Fluorescent fittings	Each	15	19.00	285.00
45	Ceiling/cabin/bracket/pedestal/table fan.	Each	5	208.00	1,040.00
Total Credit for Dismantled Material					2,435.00
STUDIO 7 GRAND TOTAL					38,18,145.40

STUDIO 7 FAÇADE LIGHT					
Sr.No	ELECTRICAL	Unit	Qty	Rate	Amount
1.	Supplying and erecting integrated LED flood light fitting Max. 155W IP65 & IK07 class having pressure die-cast aluminium housing, having system lumens output of Min. 18600 Lumens, min. efficacy of 120 lumen/W, CRI>70, CCT upto 6500K, THD<10%, p.f. >0.90, operating range of 140-270V, inbuilt surge protection of 4 kV, Life class of 50,000 Hrs. at L70B50, including driver with U shaped bracket with 3 Years warranty as per specification No FG-ODF/FLS2.	Each	6	10,357.00	62,142.00
2.	Supplying & erecting LED 40W Linear Wash Light RGWB considering die casting powder coated aluminium having PCB of excellent heat conductivity aluminium ,coefficient of heat conductivity >= 2.0 W/mk along with LED driver & required accessories.	Each	30	24,000.00	7,20,000.00
3.	Supplying & erecting controller & all required accessories like IP 66 junction box,splitter,patch panel,etc suitable for min 30 no's of LED 40W Linear Wash Light RGWB	Each	1	3,50,000.00	3,50,000.00
Total of Facade Light Fixture					11,32,142.00

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STUDIO 7 SOLAR SYSTEM					
Sr.No	ELECTRICAL	Unit	Qty	Rate	Amount
1.	Supplying, installing, testing and commissioning of 59 kWp ON-GRID Solar PV System / Plant consisting Solar PV Poly Crystalline Panel (335 Wp X 75 Nos.) and Solar ON-GRID Inverter of similar capacity (THD<3%) with interconnecting wires / cables up to solar ON GRID inverter, proper base plate, canopy box to house Inverter and necessary accessories i.e. ACDB/ DCDB , MCB etc. wiring up to solar Inverter in casing and capping, display board, sign board, two distinct earthing, lightning arrester, liaisoning charges, remote monitoring system with maintaining card / chip for 5 years including net charges for RMS System, complete up to net meter installation and export to the grid with 5 year ON-SITE warranty and fully comprehensive maintenance contract. Note 1) Rates of item no. 4-5-1 to 4-5-7 are applicable up to 200 kWp. For above 200 kWp non csr item shall be approved by concern Superintending Engineer P.W. Regional Circle (Electrical).	Each	1	12,79,531.00	12,79,531.00
2.	Supplying and erecting iron work, sheet metal work consisting of CRCA sheets, various sections of iron, plates, chequered plates, rods, bars, MS pipes, etc. for panel board or any other purpose with bending, cutting, drilling and welding complete erected at the position with necessary materials duly painted with one coat of red oxide and two coats of enamel paint to match the switchgears or as per directions by the authority.	Kg	315	196.00	61,740.00
3	Supplying and installation of Solar PV Module cleaning unit consisting of nozzles spray, necessary pipes, valves, post, electronic panel board concealed with weather proof cabinet, spreading water periodically for removal of dust, related motor pump, controller, timer and nozzles set suitable for covering 5 KW Solar PV Module. (Approx. 35 Sq. Mtr. PV Module area). Note: For item no. 4-8-8 for additional kW capacity, add Rs. 4500/- for every 5kW.	Each	1	46,485.00	46,485.00
4.	Supplying, erecting & terminating FRLS XLPE insulated, galvanised steel formed wire armoured (strip) cable 1100 V, 3 core 2.5 sq. mm. copper conductor complete erected with glands & lugs, on wall/ trusses/ pole or laid in provided trench/ pipe .	M	300	178.50	53,550.00
5.	Supplying and erecting AC three phase LT CT multifunction net meter DLMS compliance of accuracy class 0.5, 3 x 240V, 50Hz, with backlit LCD display, optical port & RS 232 port (measures import kWh, kVAh, export kWh, kVAh, Net kWh, kVAh, V, I, kW, 6 months history of energy, load survey, TOD, tamper detection & logging, power ON/OFF events, instantaneous parameters of rating 1/5A with display in absence of power) with wiring connections and mounting hardware on provided panels complete with calibration certificate from manufacturer.	Each	1	16,271.00	16,271.00
	Total of Solar System				14,57,577.00

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
1	Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (strip) cable 1100 V, 3½core 185 sq. mm. aluminium conductor complete erected with glands & lugs, on wall/ trusses/pole or laid in provided trench/ pipe. Note: For use of FRLS-XLPE insulation instead of FR-XLPE insulated armoured cable increase rates by 5 %	M	200	1,157.10	2,31,420.00
2	Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (strip) cable 1100 V, 3½ core 70 sq. mm. aluminium conductor complete erected with glands & lugs, on wall/ trusses/pole or laid in provided trench/ pipe. Note: For use of FRLS-XLPE insulation instead of FR-XLPE insulated armoured cable increase rates by 5 %	M	450	523.95	2,35,777.50
3	Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (strip) cable 1100 V, 4 core 4 sq. mm. copper conductor complete erected with glands & lugs, on wall/ trusses/ pole or laid in provided trench/ pipe. Note: For use of FRLS-XLPE insulation instead of FR-XLPE insulated armoured cable increase rates by 2 %	M	400	313.95	1,25,580.00
4	Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (strip) cable 1100 V, 3½ core 25 sq. mm. aluminium conductor complete erected with glands & lugs, on wall/ trusses/pole or laid in provided trench/ pipe. Note: For use of FRLS-XLPE insulation instead of FR-XLPE insulated armoured cable increase rates by 5 %	M	100	258.30	25,830.00
Total of Cables					6,18,607.50
5	Providing printed instruction chart for treating persons suffering from electric shock, printed in English & Marathi and duly laminated complete.	Each	1	153.00	153.00
6	Providing pair of duly tested rubber hand gloves as per IS :47705 suitable for working up to 22 kV supply complete.	Each	1	693.00	693.00
7	Supplying standard first aid box with necessary antiseptic cream, medicine for use on wounds due burn, crepe bandage, gauge bandage, medicated ready to use bandage (Band-Aid) adhesive tape for medicinal use, scissors, anti-septic solution,etc. (All above contents shall be of standard makes)	Each	1	922.00	922.00
8	S u p p l y i n g & erecting Carbon Dioxide (CO2) fire extinguisher of 4.5 kg. capacity cartridge type conform to IS 2878 /15683 complete erected with necessary clamp made from 50 x 6 mm. M. S. flat with nut & bolts routed in wall complete.	Each	1	9,943.00	9,943.00
9	Supplying shock proof leather safety shoes of electrical grade of standard size as IS :11226, 14544 duly tested, with necessary test certificate from manufacturer.	Per Pair	1	2,210.00	2,210.00
10	Supplying and fixing PVC synthetic elastomer electrically insulating mat with class B insulation conforming to IS: 15652 – 2006 having 2.5 mm thickness up to 11 Kv	Sq.m	5	3,695.00	18,475.00
Total of Safety Accessories					32,396.00
11	Supplying & erecting inverter LED batten 20W tube light fitting with polycarbonate housing, heat sink, integrated HF electronic driver, Min. 2600mAh Lithium ion Battery with charging time of 8-10 Hours and backup time of Min. 3 hrs. with minimum 25% of initial Watts having luminous efficacy of 100 lumen/watt, CRI>80, CCT of 6500K and THD<=20% having useful life of minimum 25000 hrs. with overheating protection with 2 years warranty.	Each	48	851.00	40,848.00
12	Supplying and erecting integrated LED Highbay Fitting 135W IP65 & IK08 class having die cast aluminium housing with polycarbonate diffuser with integrated optics, having system lumens output of Min. 20000 Lumens, min. efficacy of 145 lumen/W, CRI>70, CCT upto 6500K, THD<10%, p.f. >0.90, operating range of 140-240V, inbuilt surge protection of 4kV, Life class of 50,000 Hrs. at L50B50 , including driver complete with 3 Year warranty	Each	40	11,844.00	4,73,760.00
13	Supplying and erecting LED square / circular Max. 25 W down lighter/ Panel Light having pressure die-cast aluminium housing, polystyrene diffuser having system lumens output of Min. 2750 Lumens, min. efficacy of 110 lumen/W, CRI>80, CCT upto 6500K, Beam Angle of 120 deg., max. ripple of 5%, THD<10%, p.f. >0.95, operating range of 120-270V, surge protection of 2.5 kV, Life class of 50,000 Hrs. at L70B50, including driver, having mounting arrangement with board for surface type or spring loaded mounting clips complete with 3 years warranty.	Each	38	1,945.00	73,910.00
14	Supplying & erecting inverter LED batten 18W tube light fitting with polycarbonate housing, heat sink, integrated HF electronic driver,	Each	24	851.00	20,424.00

	Min. 2600 mAh Lithium ion Battery with charging time of 8-10 Hours and backup time of Min. 3 hrs. with minimum 25% of initial Watts having luminous efficacy of 100 lumen/watt, CRI>80, CCT of 6500K and THD<=20% having useful life of minimum 25000 hrs. with overheating protection with 2 years warranty.				
Item No.	Description	Unit	Qty.	Rate	Amount
15	Supplying and erecting LED Strip light 5m Length Max. 45 W IP20 class having minimum lumens output of 800 Lumens/m, min. efficacy of 90 lumen/W, CRI>80, CCT upto 5000K, Beam Angle of 110 deg., THD<10%, p.f.>0.95, operating range of 230-270V, Life class of 30,000 Hrs. at L70B50, including driver with 1 year warranty.	Each	25	1,889.00	47,225.00
16	Supplying and erecting bulk head LED fitting max. 10W with high transitivity diffuser with system lumens output of min. 1100 lumens, min. efficacy of 110 lumen/W, CRI>80, CCT upto 6500K, Beam Angle of 120 deg., THD<10%, p.f. >0.95, operating range of 140-260V, in built surge protection of 2.5 kV, Life class of 50,000 Hrs. at L70B50, including driver, IP66, IK09 rated on provided PVC Block / wooden board with 3 years warranty.	Each	50	1,423.00	71,150.00
17	Supplying and erecting Energy Saving BLDC Ceiling fan 230 V A.C. 50 cycles 1200 mm, Max. Energy Consumption of 28W having service ratio (CMM/W) of Min. 8 , PF>0.9, THD<10% with IR remote control, Temperature Rise of Max. 40 deg.C, having external mounted control PCB completely erected in position as per specification no. FG-FN/CF.	Each	11	4,499.00	49,489.00
Total of Light Fixtures, Fans, etc.					7,76,806.00
	Design,fabrication,assembling,supply,installation,testing and commissioning of cubicle type LT panels suitable for 415 V 3 phase ,4 wire 50 Hz AC supply system fabricated in compartmentised design from CRCA sheet steel of 2 mm thick for frame work IP 52 and covers,3 mm thick for gland plates i/c cleaning and finishing complete 9 tank process for powder coating in approved shade RAL 7032, extendable type TPN aluminium alloy busbars of high conductivity,DMC/SMC busbar supports,with bottom base channel of MS section not less than 75mm X 50 mm X 5 mm thick,entire panel shall have a common copper earthbar of required size at the rear with 2 nos earth studs,solid connection from main busbar to switchgears with require size of aluminium busbar & control wiring with 2.5sqmm FRLS insulated copper conductor cable ,cable alleys ,cable gland plates i/c accessories as per specification and providing switchgears, metering instruments etc. for follwing panels				
18	STUDIO:-16 PCC Panel	Each	1	4,34,990.40	4,34,990.40
	MAIN PANEL (As Per IEC 61439 1 & 2 & Other Standards As Mentioned in Tender Specifications & Master SLD INCOMER: 1 No - 630A TPN MP based MCCB with O/L, S/C, E/F & RS 485 port, of fault breaking capacity 50 KA (Ics=Icu=100% upto 415 V) with R-Y-B & On/off/trip lamps, ammeter, voltmeter & multifunction meter. BUSBAR: 630A, 50kA TPN Aluminium Busbar with heat shrinkable Sleeves with copper earth bus bar. OUTGOING: (50kA Ics=Icu=100% upto 433V) with on/off/trip indication lamps & multifunction meter 16 No : 100 Amps TPN MP MCCB, 50kA with E/F protection				
Total of Panel					4,34,990.40
19	Providing & erecting hot dipped galvanised ladder type cable tray manufactured from 16 SWG (1.6 mm thick) GI sheet of 200 mm width & 75 mm height complete with necessary coupler plates & hardware..	M	150	676.00	1,01,400.00
20	Providing & erecting hot dipped galvanised ladder type cable tray manufactured from 16 SWG (1.6 mm thick) GI sheet of 300 mm width & 75 mm height complete with necessary coupler plates & hardware.	M	100	846.00	84,600.00
Total of Cable Trays					1,86,000.00
21	Supplying & erecting triple pole and neutral distribution board (TPNDB), SPMCB of 12 ways /phase (36 poles), with door, 1.2mm thickness surface/flush mounted, IP 43 Protection on iron/GI frame (horizontal busbar type).	Each	1	4,118.00	4,118.00
22	Supplying & erecting triple pole and neutral distribution board (TPNDB), SPMCB of 4 ways/phase (12 poles), with door, 1.2mm thickness, surface/flush mounted, IP 43 protection on iron/GI frame (horizontal busbar type)	Each	1	2,391.00	2,391.00

23	Supplying & erecting triple pole and neutral distribution board (TPNDB), SPMCB of 8 ways / phase (24 poles), with door, 1.2mm thickness surface/ flush mounted, IP 43 Protection on iron/GI frame (horizontal busbar type).	Each	3	3,317.00	9,951.00
24	Supplying, erecting & marking TPMCB 40A to 63A, with rated short - circuit breaking capacity (Icn) 10kA in provided distribution board.	Each	2	992.00	1,984.00
25	Supplying, erecting & marking TPMCB 6A to 32A, with rated short - circuit breaking capacity (Icn) 10kA in provided distribution board	Each	3	751.00	2,253.00
26	Supplying, erecting & commissioning 2 pole RCCB 40A, electromagnetic type with 30/100/300 mA sensitivity with earth leakage trip indication complete.	Each	6	2,327.00	13,962.00
27	Supplying, erecting & commissioning 2 pole RCCB 16/25A, electromagnetic type with 30/100/300 mA sensitivity with earth leakage trip indication complete.	Each	9	2,136.00	19,224.00
28	Supplying, erecting & marking SPMCB 6A to 32A, C-series with rated short - circuit breaking capacity (Icn) 10kA in provided distribution board.	Each	75	174.00	13,050.00
29	Supplying, erecting & marking SPMCB 6A to 32A, B-series with rated short - circuit breaking capacity (Icn) 10kA in provided distribution board.	Each	15	173.00	2,595.00
30	Providing & erecting 3 Pole MCCB, 415 V, 100A, rated short-circuit breaking capacity 25 kA (Ics=100% of Icu), adjustable thermal (overload) setting and fixed magnetic setting with provided leads, provision for installation of shunt/UV/trip alarm contact. MCCB with phase barriers on both sides, insulation withstand capacity 800V, no line-load bias in provided enclosure/panel.	Each	16	6,969.60	1,11,513.60
31	Supplying and erecting SS enclosure of 1.6mm thick with detachable gland plate suitable for upto 100A MCCB.	Each	16	988.00	15,808.00
Total of Distribution Boards, MCCB, MCB & Accessories					1,96,849.60
32	Providing earthing with galvanized iron earth plate size 60 x 60 x 0.6 cm complete with all materials, testing & recording the results .	Each	6	4,819.00	28,914.00
33	Supplying and erecting GI strip of required size used for earthing on wall and/or any other purpose with necessary GI clamps fixed on wall painted with bituminous paint in an approved manner with joints required.	Kg	420	236.00	99,120.00
34	Supplying and erecting GI earth conductor of required sizes used for earthing or any other purposes on wall with necessary GI clamps fixed on wall/cable/ conduit with screws complete.	Kg	50	168.00	8,400.00
35	Supplying & erecting conventional spike type air termination suitable to carry lightning stroke made up of heavy gauge 40 mm dia copper pipe of standard length with 5 Nos. copper spikes fixed on copper ball as air terminals duly threaded in copper pipe erected on provided foundation complete.	Each	4	6,411.00	25,644.00
Total of Earthing & Lightning Arrestor					1,62,078.00
36	Dismantling the existing cables of all types & size above 10 sq mm up to 50 sq.mm.	M	50	25.00	1,250.00
37	Dismantling the existing cables of all types & size above 50 sq mm.	M	500	34.00	17,000.00
38	Dismantling the existing W.T. fluorescent fitting / S.V./ M.V. / M.H. lamp/LED fitting from wall with brackets and making the site as original complete.	Each	100	52.00	5,200.00
39	Dismantling any type of unserviceable feeder pillar, switch gear panel, capacitor panel, metering panel, bus-bar panel, electronic equipment panel, etc. and making the site as required, Approx. size (up to 200cm. x 90 cm x 45 cm and above) - Big Cupboard	Each	1	2,089.00	2,089.00
Total of Dismantling					25,539.00
40	PVC armoured/unarmoured cables and wires (Aluminium)	Kg	10	23.00	230.00
41	PVC armoured / unarmoured cables and wires (Copper)	Kg	10	88.00	880.00
42	Fluorescent fittings	Each	15	19.00	285.00
43	Ceiling/cabin/bracket/pedestal/table fan.	Each	5	208.00	1,040.00
Total Credit for Dismantled Material					2,435.00
STUDIO 16 GRAND TOTAL					24,33,266.50

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

STUDIO 16 FAÇADE LIGHT

Sr.No	ELECTRICAL	Unit	Qty	Rate	Amount
1.	Supplying and erecting integrated LED flood light fitting Max. 155W IP65 & IK07 class having pressure die-cast aluminium housing, having system lumens output of Min. 18600 Lumens, min. efficacy of 120 lumen/W, CRI>70, CCT upto 6500K, THD<10%, p.f. >0.90, operating range of 140-270V, inbuilt surge protection of 4 kV, Life class of 50,000 Hrs. at L70B50, including driver with U shaped bracket with 3 Years warranty as per specification No FG-ODF/FLS2.	Each	6	10,357.00	62,142.00
2.	Supplying & erecting LED 40W Linear Wash Light RGBW considering die casting powder coated aluminium having PCB of excellent heat conductivity aluminium ,coefficient of heat conductivity >= 2.0 W/mk along with LED driver & required accessories.	Each	30	24,000.00	7,20,000.00
3.	Supplying & erecting controller & all required accessories like IP 66 junction box,splitter,patch panel,etc suitable for min 30 no's of LED 40W Linear Wash Light RGBW	Each	1	3,50,000.00	3,50,000.00
	Total of Facade Light Fixture				11,32,142.00

STUDIO 16 SOLAR SYSTEM					
Sr.No	ELECTRICAL	Unit	Qty	Rate	Amount
1.	"Supplying, installing, testing and commissioning of 11 kWp ON-GRID Solar PV System / Plant consisting Solar PV Poly Crystalline Panel (335 Wp X 45 Nos.) and Solar ON-GRID Inverter of similar capacity (THD<3%) with interconnecting wires / cables up to solar ON GRID inverter, proper base plate, canopy box to house Inverter and necessary accessories i.e. ACDB/ DCDB , MCB etc. wiring up to solar Inverter in casing and capping, display board, sign board, two distinct earthing, lightning arrester, liaisoning charges, remote monitoring system with maintaining card/chip for 5 years including net charges for RMS System, complete up to net meter installation and export to the grid with 5 year ON-SITE warranty and fully comprehensive maintenance contract	Each	1	8,12,736.00	8,12,736.00
2.	Note 1) Rates of item no. 4-5-1 to 4-5-7 are applicable up to 200 kWp. For above 200 kWp non csr item shall be approved by concern Superintending Engineer P.W. Regional Circle (Electrical)."	Kg	315	196.00	61,740.00
3	Supplying and erecting iron work, sheet metal work consisting of CRCA sheets, various sections of iron, plates, chequered plates, rods, bars, MS pipes, etc. for panel board or any other purpose with bending, cutting, drilling and welding complete erected at the position with necessary materials duly painted with one coat of red oxide and two coats of enamel paint to match the switchgears or as per directions by the authority.	Each	1	46,485.00	46,485.00
4.	Supplying and installation of Solar PV Module cleaning unit consisting of nozzles spray, necessary pipes, valves, post, electronic panel board concealed with weather proof cabinet, spreading water periodically for removal of dust, related motor pump, controller, timer and nozzles set suitable for covering 5 KW Solar PV Module. (Approx. 35 Sq. Mtr. PV Module area). Note: For item no. 4-8-8 for additional kW capacity, add Rs. 4500/- for every 5kW.	M	400	178.50	71,400.00
5.	Supplying, erecting & terminating FRLS XLPE insulated, galvanised steel formed wire armoured (strip) cable 1100 V, 3 core 2.5 sq. mm. copper conductor complete erected with glands & lugs, on wall/ trusses/ pole or laid in provided trench/ pipe .	Each	1	16,271.00	16,271.00
	Total of Solar System				10,08,632.00

Item No.	Description	Unit	Qty.	Rate	Amount
HOSPITAL BUILDING					

1	Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (strip) cable 1100 V, 3½core 185 sq. mm. aluminium conductor complete erected with glands & lugs, on wall/ trusses/pole or laid in provided trench/ pipe. Note: For use of FRLS-XLPE insulation instead of FR-XLPE insulated armoured cable increase rates by 5 %	M	100	1,157.10	1,15,710.00
2	Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (strip) cable 1100 V, 4 core 6 sq. mm. copper conductor complete erected with glands & lugs, on wall/ trusses/ pole or laid in provided trench/ pipe . Note: For use of FRLS-XLPE insulation instead of FR-XLPE insulated armoured cable increase rates by 2 %	M	400	405.96	1,62,384.00
3	Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (strip) cable 1100 V, 4 core 4 sq. mm. copper conductor complete erected with glands & lugs, on wall/ trusses/ pole or laid in provided trench/ pipe. Note: For use of FRLS-XLPE insulation instead of FR-XLPE insulated armoured cable increase rates by 2 %	M	300	313.95	94,185.00
4	Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (strip) cable 1100 V, 4 core 10 sq. mm. copper conductor complete erected with glands & lugs, on wall/ trusses/ pole or laid in provided trench/ pipe. Note: For use of FRLS-XLPE insulation instead of FR-XLPE insulated armoured cable increase rates by 2 %	M	250	617.10	1,54,275.00
5	Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (strip) cable 1100 V, 3½ core 25 sq. mm. aluminium conductor complete erected with glands & lugs, on wall/ trusses/pole or laid in provided trench/ pipe. Note: For use of FRLS-XLPE insulation instead of FR-XLPE insulated armoured cable increase rates by 5 %	M	100	258.30	25,830.00
6	Supplying, erecting & terminating XLPE insulated unarmoured cable 1100 V. 1 core 16 sq. mm. copper conductor complete erected with provided lugs, laid in provided control panel /distribution boards / pipe. Note: For use of FRLS-XLPE insulation instead of FR-XLPE insulated armoured cable increase rates by 2 %	M	100	361.08	38,193.06
Total of Cables					5,90,577.06
7	Providing printed instruction chart for treating persons suffering from electric shock, printed in English & Marathi and duly laminated complete.	Each	1	153.00	153.00
8	Providing pair of duly tested rubber hand gloves as per IS :47705 suitable for working up to 22 kV supply complete.	Each	1	693.00	693.00
9	Supplying standard first aid box with necessary antiseptic cream, medicine for use on wounds due burn, crepe bandage, gauge bandage, medicated ready to use bandage (Band-Aid) adhesive tape for medicinal use, scissors, anti-septic solution,etc. (All above contents shall be of standard makes)	Each	1	922.00	922.00
10	Supplying & erecting Carbon Dioxide (CO2) fire extinguisher of 4.5 kg. capacity cartridge type conform to IS 2878 /15683 complete erected with necessary clamp made from 50 x 6 mm. M. S. flat with nut & bolts routed in wall complete.	Each	1	9,943.00	9,943.00
11	Supplying shock proof leather safety shoes of electrical grade of standard size as IS :11226, 14544 duly tested, with necessary test certificate from manufacturer.	Per Pair	1	2,121.00	2,121.00
12	Supplying and fixing PVC synthetic elastomer electrically insulating mat with class B insulation conforming to IS: 15652 – 2006 having 2.5 mm thickness up to 11 Kv	Sq.m	5	3695.00	18,475.00
Total of Safety Accessories					32,396.00
13	Supplying and erecting LED square / circular 9 to 12W down lighter having pressure die-cast aluminium housing, opal translucent cover, mounting arrangement with board for surface type or spring loaded mounting clips for flush type complete.	Each	12	807.00	9,684.00

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
14	Supplying and erecting LED square / circular Max. 18 W down	Each	9	1,544.00	13,896.00

	lighter/ Panel Light having pressure die-cast aluminium housing, polystyrene diffuser having system lumens output of Min. 2000 Lumens, min. efficacy of 110 lumen/W, CRI>80, CCT upto 6500K, Beam Angle of 120 deg., max. ripple of 5%, THD<10%, p.f. >0.95, operating range of 120-270V, surge protection of 2.5 kV, Life class of 50,000 Hrs. at L70B50, including driver, having mounting arrangement with board for surface type or spring loaded mounting clips complete with 3 years warranty.				
15	Supplying and erecting LED square / circular Max. 25 W down lighter/ Panel Light having pressure die-cast aluminium housing, polystyrene diffuser having system lumens output of Min. 2750 Lumens, min. efficacy of 110 lumen/W, CRI>80, CCT upto 6500K, Beam Angle of 120 deg., max. ripple of 5%, THD<10%, p.f. >0.95, operating range of 120-270V, surge protection of 2.5 kV, Life class of 50,000 Hrs. at L70B50, including driver, having mounting arrangement with board for surface type or spring loaded mounting clips complete with 3 years warranty.	Each	6	1,945.00	11,670.00
16	Supplying & erecting inverter LED batten 20W tube light fitting with polycarbonate housing, heat sink, integrated HF electronic driver, Min. 2600 mAh Lithium ion Battery with charging time of 8-10 Hours and backup time of Min. 3 hrs. with minimum 25% of initial Watts having luminous efficacy of 100 lumen/watt, CRI>80, CCT of 6500K and THD<=20% having useful life of minimum 25000 hrs. with overheating protection with 2 years warranty.	Each	393	851.00	3,34,443.00
17	Supplying and erecting bulk head LED fitting max. 10W with high transitivity diffuser with system lumens output of min. 1100 lumens, min. efficacy of 110 lumen/W, CRI>80, CCT upto 6500K, Beam Angle of 120 deg., THD<10%, p.f. >0.95, operating range of 140-260V, in built surge protection of 2.5 kV, Life class of 50,000 Hrs. at L70B50, including driver, IP66, IK09 rated on provided PVC Block / wooden board with 3 years warranty.	Each	17	1,423.00	24,191.00
18	Supplying and erecting exhaust fan medium duty 230 V A.C. 50 cycles 225 mm. 1400 RPM with condenser complete erected in position with necessary materials. Fan motor with moisture proof treatment and 'E' class insulation..	Each	13	1,701.00	22,113.00
19	Supplying and erecting Energy Saving BLDC Ceiling fan 230 V A.C. 50 cycles 1200 mm, Max. Energy Consumption of 28W having service ratio (CMM/W) of Min. 8 , PF>0.9, THD<10% with IR remote control, Temperature Rise of Max. 40 deg.C, having external mounted control PCB completely erected in position as per specification no. FG-FN/CF	Each	50	4,499.00	2,24,950.00
20	Making suitable size recess in any type of false ceiling for erection of flush type down lighter and finishing the background to match the original surface upto 20W.	Each	27	63.00	1,701.00
Total of Light Fixtures, Fans, etc.					6,42,648.00
	Design,fabrication,assembling,supply,installation,testing and commissioning of cubicle type LT panels suitable for 415 V 3 phase ,4 wire 50 Hz AC supply system fabricated in compartmentised design from CRCA sheet steel of 2 mm thick for frame work IP 52 and covers,3 mm thick for gland plates i/c cleaning and finishing complete 9 tank process for powder coating in approved shade RAL 7032, extendable type TPN aluminium alloy busbars of high conductivity,DMC/SMC busbar supports,with bottom base channel of MS section not less than 75mm X 50 mm X 5 mm thick,entire panel shall have a common copper earthbar of required size at the rear with 2 nos earth studs,solid connection from main busbar to switchgears with require size of aluminium busbar & control wiring with 2.5sqmm FRLS insulated copper conductor cable ,cable alleys ,cable gland plates i/c accessories as per specification and providing switchgears, metering instruments etc. for follwing panels				
21	PCC Panel	Each	1	6,42,637.80	6,42,637.80
	MAIN PANEL (As Per IEC 61439 1 & 2 & Other Standards As Mentioned in Tender Specifications & Master SLD INCOMER: 1 No - 630A TPN TM based MCCB with O/L, S/C, E/F & RS 485 port, of fault breaking capacity 50 KA (Ics=Icu=100% upto 415 V) with R-Y-B & On/off/trip lamps, ammeter, voltmeter & multifunction meter.				

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
	BUSBAR: 630A, 50kA TPN Aluminium Busbar with heat shrinkable Sleeves with copper earth bus bar.				

	OUTGOING: (50kA Ics=Icu=100% upto 433V) with on/off/trip indication lamps & multifunction meter 12 No : 100 Amps TPN TM MCCB, 50kA with E/F protection				
Total of Panel					6,42,637.80
22	Providing & erecting hot dipped galvanised ladder type cable tray manufactured from 16 SWG (1.6 mm thick) GI sheet of 200 mm width & 75 mm height complete with necessary coupler plates & hardware..	M	150	676.00	1,01,400.00
23	Providing & erecting hot dipped galvanised ladder type cable tray manufactured from 16 SWG (1.6 mm thick) GI sheet of 300 mm width & 75 mm height complete with necessary coupler plates & hardware.	M	100	846.00	84,600.00
24	Supplying and erecting PVC box trunking of size 100x50 mm. with accessories on wall/ceiling.	M	200	413.00	82,600.00
Total of Cable Trays					2,68,600.00
25	Supplying & erecting triple pole and neutral distribution board (TPNDB), SPMCB of 4 ways/phase (12 poles), with door, 1.2mm thickness, surface/flush mounted, IP 43 protection on iron/GI frame (horizontal busbar type)	Each	1	2,391.00	2,391.00
26	Supplying & erecting triple pole and neutral distribution board (TPNDB), SPMCB of 8 ways / phase (24 poles), with door, 1.2mm thickness surface/ flush mounted, IP 43 Protection on iron/GI frame (horizontal busbar type)	Each	5	3,317.00	16,585.00
27	Supplying, erecting & marking TPMCB 40A to 63A, with rated short - circuit breaking capacity (Icn) 10kA in provided distribution board.	Each	2	992.00	1,984.00
28	Supplying, erecting & marking FPMCB 6A to 32A, with rated short - circuit breaking capacity (Icn) 10kA in provided distribution board	Each	3	1,059.00	3,177.00
29	Supplying, erecting & commissioning 2 pole RCCB 40A, electromagnetic type with 30/100/300 mA sensitivity with earth leakage trip indication complete.	Each	6	2,327.00	13,962.00
30	Supplying, erecting & commissioning 2 pole RCCB 16/25A, electromagnetic type with 30/100/300 mA sensitivity with earth leakage trip indication complete	Each	12	2,136.00	25,632.00
31	Supplying, erecting & marking SPMCB 6A to 32A, C-series with rated short - circuit breaking capacity (Icn) 10kA in provided distribution board	Each	75	174.00	13,050.00
32	Supplying, erecting & marking SPMCB 6A to 32A, B-series with rated short - circuit breaking capacity (Icn) 10kA in provided distribution board	Each	15	173.00	2,595.00
Total of Distribution Boards, MCCB, MCB & Accessories					79,376.00
33	Supplying and erecting modular type switch 6A / 10A duly erected on provided plate and box with wiring connections complete.	Each	53	72.00	3,816.00
34	Supplying and erecting modular type switch 16A duly erected on provided plate and box with wiring connections complete	Each	14	108.00	1,512.00
35	Point wiring for light/bell/exhaust fan in 20 mm FRLS grade HMS PVC conduit with 1.5 sq.mm (2+1E) FRLSH grade copper wire, modular type switch, earthing and required accessories.	Point	154	817.00	1,25,818.00
36	Point wiring for ceiling fan in 20 mm FRLS grade HMS PVC conduit with 1.5 sq.mm (2+1E) FRLSH grade copper wire, modular type switch, earthing and required accessories.	Point	4	951.00	3,804.00
37	Secondary point wiring for additional light/ bell point, concealed type in min 20 mm FRLS grade PVC conduit with 1.5 sq.mm. (2+1E) FRLSH grade copper wires with required accessories.	Point	265	196.00	51,940.00
38	Supplying and erecting mains with 2x2.5 sq.mm FRLSH copper PVC insulated wire laid in provided conduit/trunking/inside pole/Bus bars or any other places.	M	1005	71.00	71,355.00
39	Supplying & erecting mains with 1x2.5 sq.mm FRLSH copper PVC insulated wire laid in provided conduit/trunking/inside pole/Bus bars or any other places.	M	1005	35.50	35,677.50
40	Supplying and erecting mains with 2x1.5 sq.mm FRLSH copper PVC insulated wire laid in provided conduit/trunking/inside pole/Bus bars or any other places.	M	2625	46.00	1,20,750.00

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DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
41	Supplying and erecting mains with 1x1.5 sq.mm FRLSH copper PVC insulated wire laid in provided conduit/trunking/inside	M	2625	23.00	60,375.00

	pole/Bus bars or any other places.				
42	Supplying and erecting HMS PVC conduit FRLS grade 25 mm dia. With necessary accessories in wall/floor with chiselling appropriately	M	1510	116.00	1,75,131.00
43	Supplying & erecting H.M.S. P.V.C. conduit 20 mm. dia. With necessary accessories in wall/floor with chiselling appropriately	M	1384	104.00	1,43,936.00
44	Supplying and erecting unbreakable concealed type modular switch box with double mounting plate for 1 module duly erected flush to wall with required chiselling and finishing with cement mortar / POP as per required to match the background.	Each	91	231.00	21,021.00
45	Supplying and erecting unbreakable concealed type modular switch box with double mounting plate for 2 module duly erected flush to wall with required chiselling and finishing with cement mortar / POP as per required to match the background.	Each	24	234.00	5,616.00
46	Supplying and erecting unbreakable concealed type modular switch box with double mounting plate for 3 module duly erected flush to wall with required chiselling and finishing with cement mortar / POP as per required to match the background.	Each	6	269.00	1,614.00
47	Supplying and erecting unbreakable concealed type modular switch box with double mounting plate for 4 module duly erected flush to wall with required chiselling and finishing with cement mortar / POP as per required to match the background.	Each	1	298.00	298.00
48	Supplying and erecting unbreakable concealed type modular switch box with double mounting plate for 6 module duly erected flush to wall with required chiselling and finishing with cement mortar / POP as per required to match the background.	Each	4	389.00	1,556.00
Total of Point Wiring ,mains Wiring ,Switch Sockets, etc.					8,24,219.50
49	Providing earthing with galvanized iron earth plate size 60 x 60 x 0.6 cm complete with all materials, testing & recording the results	Each	4	4,819.00	19,276.00
50	Supplying and erecting GI strip of required size used for earthing on wall and/or any other purpose with necessary GI clamps fixed on wall painted with bituminous paint in an approved manner with joints required.	Kg	100	236.00	23,600.00
51	Supplying and erecting GI earth wire of high purity of different sizes used for earthing or any other purposes on wall with necessary G. I. Clamps fixed on wall/cable/ conduit with screws in an approved manner.	Kg	50	168.00	8,400.00
52	Supplying & erecting conventional spike type air termination suitable to carry lightning stroke made up of heavy gauge 40 mm dia copper pipe of standard length with 5 Nos. copper spikes fixed on copper ball as air terminals duly threaded in copper pipe erected on provided foundation complete.	Each	4	6,411.00	25,644.00
53	Supplying and erecting GI strip of required size used for earthing on wall and/or any other purpose with necessary GI clamps fixed on wall painted with bituminous paint in an approved manner with joints required. As per specification no EA-EP.	Kg	320	236.00	75,520.00
54	Providing pipe type earthing with 40mm. dia. G.I. pipe or 20 mm dia. G.I. Rod complete with all materials testing and recording the results as per specification no. EA-EP	Each	4	1,537.00	6,148.00
Total of Earthing & Lightning Arrestor					1,58,588.00
55	Supplying, erecting, testing and commissioning of 10kVA capacity online pure sine wave, with backup time of 1/2 hrs. PWM & IGBT based UPS with 0.9 to unity output pf, 3 phase input & 3 phase output complete with all protections.	Each	1	1,80,484.00	1,80,484.00
56	Supplying and erecting 12V/100Ah SMF battery with battery terminal wire, duly charged with 24 months warranty complete.	Each	8	9,549.00	76,392.00
Total of UPS					2,56,876.00
57	Supplying and erecting integrated LED street light fitting 40 to 50W IP65 & IK08 class having single piece pressure die-cast aluminium housing, having system lumens output of Min. 4400 Lumens, min. efficacy of 110 lumen/W, CRI>70, CCT upto 6500K, THD<10%, p.f. >0.95, operating range of 140-270V, inbuilt surge protection of 10 kV, Life class of 50,000 Hrs. at L70B50, including driver complete with 3 Years warranty.	Each	8	4,223.00	33,784.00
	Providing and erecting galvanised 1000mm single arm sword type bracket with FRP dome and ball.	Each	8	2,710.00	21,680.00

Item No.	Description	Unit	Qty.	Rate	Amount
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59	Making M- 20 grade reinforced cement concrete foundation by considering the safe soil bearing capacity at site as 10 T/sq.m at 1.5 m depth including supply of steel, concrete, excavation and fixing provided nut bolts with the help of template, duly plastered as per design complete (for 6m to 8m high octagonal /conical GI pole).	Each	8	4,873.00	38,984.00
60	Providing & erecting 6 m high (clear height) galvanised octagonal pole with foundation bolts having bottom of 130 mm A/F, top 70 mm A/F on provided foundation.	Each	8	15,193.00	1,21,544.00
61	Making trench in soft soil having 0.9m depth and minimum 0.3 m width as per IS for laying provided cables of voltage range 3.3 kV to 11 kV complete.	M	250	249.00	62,250.00
62	Providing pipe type earthing with 40mm. dia. G.I. pipe or 20 mm dia. G.I. Rod complete with all materials testing and recording the results.	Each	8	1,537.00	12,296.00
63	Supplying and erecting GI wire of high purity of required sizes used for earthing or any other purposes on wall with necessary G. I. Clamps fixed on wall/cable/ conduit with screws complete.	Kg	50	168.00	8,400.00
64	Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (strip) cable 1100 V, 3 core 2.5 sq. mm. copper conductor complete erected with glands & lugs, on wall/ trusses/ pole or laid in provided trench/ pipe	M	400	175.00	70,000.00
Total of External Light Fixture					3,68,938.00
65	Dismantling the existing cables of all types & size above 10 sq mm up to 50 sq.mm.	M	10	25.00	250.00
66	Dismantling the existing cables of all types & size up to 10 sq mm.	M	20	34.00	680.00
67	Dismantling the existing W.T. fluorescent fitting / S.V./ M.V. / M.H. lamp/LED fitting from wall with brackets and making the site as original complete.	Each	50	52.00	2,600.00
68	Dismantling any type of unserviceable feeder pillar, switch gear panel, capacitor panel, metering panel, bus-bar panel, electronic equipment panel, etc. and making the site as required, Approx. size (up to 200cm. x 90 cm x 45 cm and above) - Big Cupboard	Each	1	2,089.00	2,089.00
69	Dismantling the existing ceiling fan /exhaust fan / cabin fan / bracket fan complete with accessories, G.I. down rod, frame etc. and making the site clear.	Each	10	42.00	420.00
Total of Dismantling					6,039.00
70	PVC armoured/unarmoured cables and wires (Aluminium)	Kg	10	23.00	230.00
71	PVC armoured / unarmoured cables and wires (Copper)	Kg	10	88.00	880.00
72	Fluorescent fittings	Each	15	19.00	285.00
73	Ceiling/cabin/bracket/pedestal/table fan.	Each	5	208.00	1,040.00
Total Credit for Dismantled Material					2,435.00
HOSPITAL BUILDING GRAND TOTAL					38,70,895.36

SOLAR SYSTEM HOSPITAL BUILDING					
Sr.No	ELECTRICAL	Unit	Qty	Rate	Amount
1.	Supplying, installing, testing and commissioning of 51 kWp ON-GRID Solar PV System / Plant consisting Solar PV Poly Crystalline Panel (335 Wp X 75 Nos.) and Solar ON-GRID Inverter of similar capacity (THD<3%) with interconnecting wires / cables up to solar ON GRID inverter, proper base plate, canopy box to house Inverter and necessary accessories i.e. ACDB/ DCDB , MCB etc. wiring up to solar Inverter in casing and capping, display board, sign board, two distinct earthing, lightning arrester, liaisoning charges, remote monitoring system with maintaining card / chip for 5 years including net charges for RMS System, complete up to net meter installation and export to the grid with 5 year ON-SITE warranty and fully comprehensive maintenance contract. Note 1) Other than above mentioned capacity, for installation of on-grid solar PV plant, add Rs. 58720/- per kWp for item no.4-5-1 to 4-5-6, as required.	Each		12,79,531.00	12,79,531.00
2.	Supplying and erecting iron work, sheet metal work consisting of CRCA sheets, various sections of iron, plates, chequered plates, rods, bars, MS pipes, etc. for panel board or any other purpose with bending, cutting, drilling and welding complete erected at the position with necessary materials duly painted with one coat of red oxide and two coats of enamel paint to match the switchgears or as per directions by the authority.	Kg		196.00	61,740.00

3.	Supplying and installation of Solar PV Module cleaning unit consisting of nozzles spray, necessary pipes, valves, post, electronic panel board concealed with weather proof cabinet, spreading water periodically for removal of dust, related motor pump, controller, timer and nozzles set suitable for covering 5 KW Solar PV Module. (Approx. 35 Sq. Mtr. PV Module area). Note: For item no. 4-8-8 for additional kW capacity, add Rs. 4000/- for every 5kW.	Each	1	46,485.00	46,485.00
4.	Supplying, erecting & terminating FRLS XLPE insulated, galvanised steel formed wire armoured (strip) cable 1100 V, 3 core 2.5 sq. mm. copper conductor complete erected with glands & lugs, on wall/ trusses/ pole or laid in provided trench/ pipe .	M	400	178.50	71,400.00
5.	Supplying and erecting AC three phase LT CT multifunction net meter DLMS compliance of accuracy class 0.5, 3 x 240V, 50Hz, with backlit LCD display, optical port & RS 232 port (measures import kWh, kVAh, export kWh, kVAh, Net kWh, kVAh, V, I, kW, 6 months history of energy, load survey, TOD, tamper detection & logging, power ON/OFF events, instantaneous parameters of rating 1/5A with display in absence of power) with wiring connections and mounting hardware on provided panels complete with calibration certificate from manufacturer.	Each	1	16,271.00	16,271.00
	Total of Solar System				14,75,427.00

PROPOSED INTERIOR WORK OF MAKEUP ROOMS AT STUDIO NO. 5					
	ELECTRICAL				
1	ITEM NO:-01 Dismantling the existing switchgears, DB, and bus bar of any size complete with/ without board or angle iron frame CSR 5-12-1	NOS	4.00	93.00	372.00
2	ITEM NO:-02 Making the site clear of dismantled DB and switchgears by refilling the holes with cement mortar & finishing in an approved manner. CSR 5-12-2	NOS	4.00	102.00	408.00
3	ITEM NO:-03 Dismantling the existing ceiling fan /exhaust fan / cabin fan / bracket fan complete with accessories, G.I. down rod, frame etc. and making the site clear. CSR 2-12-4	NOS	8.00	37.00	296.00
4	ITEM NO:-04 Dismantling the existing W.T. fluorescent fitting / S.V./ M.V. / M.H. lamp /LED fitting from wall with brackets and making the site as original complete. CSR 2-12-2	NOS	20.00	47.00	940.00

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NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
5	ITEM NO:-05 Dismantling the existing electric geyser or storage type water heater of any size along with plumbing connections and making the site clear. CSR 3-12-1	NOS	8.00	187.00	1,496.00
6	ITEM NO:-06 Dismantling the existing window type air conditioner of any type and capacity safely without any damages and making the site clear. CSR 3-12-2	NOS	6.00	467.00	2,802.00
7	ITEM NO:-07 Dismantling the existing split type air conditioner of any type and capacity safely without any damages and making the site clear. CSR 3-12-3	NOS	6.00	885.00	5,310.00
8	ITEM NO:-08Supplying & erecting triple pole and neutral distribution board (TPNDB), SP/TP MCBs total 12 ways /36 poles, with door, 1.2mm thickness surface/flush mounted, IP 43 Protection on iron/GI frame (vertical busbar type) as per specification no. SW-SWR/MCBDBCSR-5-4-6	NOS	2.00	7,661.00	15,322.00
9	ITEM NO:-09 Providing & erecting 4 Pole MCCB, 415V, 200A, rated short-circuit breaking capacity 25 kA (Ics=100% of Icu), adjustable thermal (overload) setting and adjustable magnetic setting with provided leads, provision for installation of shunt/UV/trip alarm contact and MCCB should have phase barriers both sides, with insulation withstand capacity 800V, no line-load bias in provided enclosure/panel as per specification no. SW-SWR/MCCB CSR-5-5-2	NOS	4.00	12,724.80	50,899.20
10	ITEM NO:-10 Supplying, erecting & marking TPMCB 40A to 63A, with rated short - circuit breaking capacity (Icn) 10kA in provided distribution board as per specification no. SW-SWR/MCB CSR 5-3-11	NOS	8.00	992.00	7,936.00
11	ITEM NO:-11 Supplying, erecting & marking SPMCB 6A to 32A, C-series with rated short - circuit breaking capacity (Icn) 10kA in provided distribution board as per specification no. SW-SWR/MCB CSR 5-3-2	NOS	8.00	174.00	1,392.00
	POINT WIRING - LIGHT POINT				
12	ITEM NO:-12 Supplying and erecting mains with 2x1.5 sq.mm FRLSH copper PVC insulated wire laid in provided conduit/trunking/inside pole/Bus bars or any other places as per specification No: WG-MA/BW CSR 1-3-1	RMT	1.00	40.00	40.00
13	ITEM NO:-13 Supplying & erecting mains with 2x2.5 sq.mm F.R.L.S copper PVC insulated wire laid in provided conduit/trunking/inside pole/Bus bars or any other places. as per specification No: WGMA/ BW CSR 1-3-2	RMT	1.00	62.00	62.00
14	ITEM NO:-14 Supplying & erecting mains with 2x4 sq.mm FRLSH copper PVC insulated wire laid in provided conduit/trunking/inside pole/Bus bars or any other places. as per specification No: WGMA/BW CSR 1-3-3	RMT	1.00	89.00	89.00
15	ITEM NO:-15 Supplying and erecting HMS PVC conduit FRLS grade 25 mm dia. With necessary accessories in wall/floor with chiselling appropriately as per specification No: WG-MA/CC. CSR 1-1-9	RMT	1.00	127.00	127.00
	MODULAR SWITCHES AND ACCESSORIES, FAN, EXHAUST FAN				
16	ITEM NO:-16 Supplying and erecting modular type switch 6A / 10A duly erected on provided plate and box with wiring connections complete. CSR 1-6-1	NOS	96.00	72.00	6,912.00

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NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
17	ITEM NO:-17 Supplying and erecting modular type 3 pin 6A multi socket with safety shutter, duly erected on provided plate and box with wiring connections complete. CSR 1-6-10	NOS	25.00	112.00	2,800.00
18	ITEM NO:-18 Supplying and erecting modular type 3 pin 6 / 16A multi socket with safety shutter, duly erected on provided plate and box with wiring connections complete. CSR 1-6-11	NOS	8.00	160.00	1,280.00
19	ITEM NO:-19 Supplying and erecting modular type switch one way 16 / 20 A, duly erected on provided plate and box with wiring connections complete with neon indicator. CSR 1-6-7	NOS	8.00	121.00	968.00
20	ITEM NO:-20 Supplying and erecting unbreakable concealed type modular switch box with double mounting plate for 4 module duly erected flush to wall with required chiselling and finishing with cement mortar / POP as per required to match the background. CSR 1-6-37	NOS	8.00	277.00	2,216.00
21	ITEM NO:-21 Supplying and erecting unbreakable concealed type modular switch box with double mounting plate for 6 module duly erected flush to wall with required chiselling and finishing with cement mortar / POP as per required to match the background. CSR 1-6-38	NOS	8.00	335.00	2,680.00
22	ITEM NO:-22 Supplying and erecting unbreakable concealed type modular switch box with double mounting plate for 8 module duly erected flush to wall with required chiselling and finishing with cement mortar / POP as per required to match the background. CSR 1-6-39	NOS	8.00	417.00	3,336.00
23	ITEM NO:-23 Supplying and erecting unbreakable concealed type modular switch box with double mounting plate for 12 module duly erected flush to wall with required chiselling and finishing with cement mortar / POP as per required to match the background. CSR 1-6-40	NOS	8.00	523.00	4,184.00
24	ITEM NO:-24 Supplying and erecting exhaust fan medium duty 230 V A.C. 50 cycles 225 mm. 1400 RPM with condenser complete erected in position with necessary materials. Fan motor with moisture proof treatment and 'E' class insulation CSR 2-10-15	NOS	8.00	2,032.00	16,256.00
25	ITEM NO:-25 Supplying, erecting, testing & commissioning fresh air intake system, ductable circular inline fresh air fan inlet unit having 300 cfm capacity with maintaining the static pressure minimum 20 mm of Hg complete suitable to operate on 1ph, 230 V, 50Hz, A.C. supply. CSR 3-11-60	NOS	8.00	5,220.00	41,760.00
26	ITEM NO:-26 Supply, Fabrication, installation and testing of 24G sheet metal ducts in accordance with the approved shop drawings and as required by the specifications. The item rate shall include the cost of supporting arrangement / structure as per technical specification. MR	SMT	40.00	1,460.00	58,400.00
27	ITEM NO:-27 Supplying and erecting Ceiling rose / Batten holder / Slanting holder /hanging cord switch / hanging bell push / pendant holder bakelite base 6A. erected on filled polypropylene board or polished double wooden block/ PVC junction box. CSR 1-5-7	NOS	8.00	39.00	312.00

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DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
28	ITEM NO:-28 Supplying and erecting regular/ standard model ceiling fan of 1400mm. sweep complete erected in position as per specification no. FG-FN/CF CSR 2-10-3	NOS	8.00	2,275.00	18,200.00
29	ITEM NO:-29 Supplying and erecting electronic type step regulator for ceiling fan 600/ 900/ 1200/ 1400 mm. sweep, complete erected on provided switch board CSR 2-11-9	NOS	8.00	206.00	1,648.00
30	ITEM NO:-30 Supplying and erecting fan hook box of 10 mm M.S. round bar bounded to the R.C.C. bars upto 50 mm length each side and pierced through a 16 S.W.G. thick aluminium/M.S. Bowl 100 mm dia.or equivalent square size and having depth upto 75 mm complete erected with duly painted by one coat of red oxide paint and two coats of paint erected in position and without any leakage of slurry of cement concrete on either side of the box and positioned to the bottom level of the slab. CSR 2-11-5	NOS	8.00	176.00	1,408.00
EARTHING (EA)					
31	ITEM NO:-31 Providing pipe type earthing with 40mm. dia. G.I. pipe or 20 mm dia. G.I. Rod complete with all materials as per specification No. EA-EP CSR 9-1-4	NOS	3.00	1,500.00	4,500.00
32	ITEM NO.32 Providing earthing with copper earth plate size 30 x 30 x 0.315 cm complete with all materials, testing & recording the results as per specification no. EA-EP CSR 9-1-2	NOS	1.00	6,486.00	6,486.00
33	ITEM NO:-33 Supplying & laying (including excavation) reinforced cement concrete pipe of IS 458:2003 NP-2 class of 150 mm internal diameter in proper line, level and slope including providing and fixing collars in cement mortar 1:2 and curing etc. complete. CSR 7-6-5	NOS	1.00	569.00	569.00
INDOOR LED FITTING					
34	ITEM NO:-34 Supplying & erecting inverter LED batten 20W tube light fitting with polycarbonate housing, heat sink, integrated HF electronic driver, Min. 2600 mAh Lithium ion Battery with charging time of 8-10 Hours and backup time of Min. 3 hrs. with minimum 25% of initial Watts having luminous efficacy of 100 lumen/watt, CRI>80, CCT of 6500K and THD<=20% having useful life of minimum 25000 hrs. with overheating protection with 2 years warranty.. CSR 2-1-22	NOS	5.00	1,114.00	5,570.00
35	ITEM NO:-35 Supplying and erecting LED square / circular Max. 14 W down lighter/Panel Light having pressure die-cast aluminium housing, polystyrene diffuser having system lumens output of Min. 1500 Lumens, min. efficacy of 110 lumen/W, CRI>80, CCT upto 6500K, Beam Angle of 120 deg., max. ripple of 5%, THD<10%, p.f. >0.95, operating range of 120-270V, surge protection of 2.5 kV, Life class of 50,000 Hrs. at L70B50, including driver, having mounting arrangement with board for surface type or spring loaded mounting clips complete with 3 years warranty CSR 2-1-4	NOS	55.00	1,213.00	66,715.00
36	ITEM NO:-36 Supplying and erecting LED Strip light 5m Length Max. 95 W IP20 class having minimum lumens output of 1600 Lumens/m, min. efficacy of 90 lumen/W, CRI>80, CCT upto 5000K, Beam Angle of 110 deg., THD<10%, p.f. >0.95, operating range of 230-270V, Life class of 30,000 Hrs. at L70B50 including driver with 1 year warranty. CSR 2-1-11	NOS	6.00	2,744.00	16,464.00

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Item No.	Description	Unit	Qty.	Rate	Amount
	CCTV				
37	ITEM NO:-37 Supplying, fixing, and configuring 8-ports 1 G unmanaged gigabit POE switch erected in provided rack complete. CSR 1-11-1	NOS	1.00	17,973.00	17,973.00
38	ITEM NO:-38 Providing, commissioning and maintaining temporary CCTV system with 8 channel NVR, IP video/audio input - 1 no, IP based 4.0 MP, Full HD, IR IP dome camera - 2 nos, IP based 4.0 MP, Full HD, IR IP PTZ camera - 2 nos, 4TB Hard Disk - 2 no, 42" Full H D professional display - 1 no, 8 port PoE Switch - 1 no, Power supply unit to camera - 1 no, On Line UPS - 1 no with necessary mains, switchgears on hire basis for one day CSR 14-1-55	JOB	1.00	12,474.00	12,474.00
39	ITEM NO:-39 Supplying and fixing 9U wall mount rack (Dimension-DxWxH – 500x600x500 mm) as per specification No. WG-NAS/RAK CSR 1-12-18	NOS	1.00	9,066.00	9,066.00
40	ITEM NO :- 40 Supplying and installing cat-6 cable suitable for networking as per specification no. WG-COC/NC CSR 1-10-1	RMT	180.00	53.00	9,540.00
41	ITEM NO :-41 Supplying, installing, testing & commissioning split type variable speed inverter technology with minimum 3 to 1 convertible mode for compressor, room air conditioning unit 1.3TR to 1.6TR capacity having ISEER minimum 5.00 suitable to operate on 250V, 50 Hz, A.C. supply having 1 no of air handling unit hi-wall/floor mounting type complete with refrigerant R32 having copper condenser, minimum 2.5PM filter, self diagnosis feature, stabilizer free operation & temperature display on indoor unit, noise level maximum 50dBA at position as per specification no. APAC/ WAC CSR 3-2-11	NOS	4.00	55,578.00	2,22,312.00
42	ITEM NO :- 42 Supplying, installing, testing & commissioning split type variable speed inverter technology with minimum 3 to 1 convertible mode for compressor. room air conditioning unit 1.7TR to 2.0TR capacity having ISEER minimum 5.0 suitable to operate on 250V, 50 Hz, A.C. supply having 1 no of air handling unit hi-wall/floor mounting type complete with refrigerant R32 having copper condenser, minimum 2.5PM filter, self diagnosis feature, stabilizer free operation & temperature display on indoor unit, noise level maximum 50dBA at position in provided recess with wooden frame complete specification no. AP-AC/WAC CSR 3-2-12	NOS	2.00	61,440.00	1,22,880.00
43	ITEM NO :- 43 Supplying & erecting seamless outside & inside, smooth, dry and clean copper pipe with ROHS compliant suitable for refrigerant having 22SWG thickness and inner dia/size 12mm complete. CSR 3-2-26	RMT	60.00	300.00	18,000.00
44	ITEM NO :-44 Supplying & erecting seamless outside & inside, smooth, dry and clean copper pipe with ROHS compliant suitable for refrigerant having 22SWG thickness and inner dia/size 16mm complete. CSR 3-2-27	RMT	60.00	450.00	27,000.00
	FIRE ALARM /SMOKE DETECTOR				
45	ITEM NO :-45 Supplying, installing, testing and commissioning of micro processor based intelligent addressable main fire alarm panel, central processing unit with the 2 loop capacity and capable of supporting upto 250 devices and detectors per loop, with on-board LCD display with min 16 lines of text, operating at 230 V 50 HZ - AC with inbuilt Battery Backup of a minimum 24 hours in normal condition and 30 min in alarm condition, suitable provision for network connectivity, interfacing with third party equipment via a MODBUS/ OPC/ L-	NOS	1.00	1,71,990.00	1,71,990.00

Item No.	Description	Unit	Qty.	Rate	Amount
	ON interface etc. conforming to IS 15908:2021, IS 2189: 2008, EN 54 & VDS / FM/ UL 864 (10th edition) with 3 years replacement warranty FF-AFAS/CP. CSR 13-10-2				
46	ITEM NO :- 46 Supplying, installing, testing and commissioning of addressable optical smoke detector, single/twin LED's with 360 degree view, suitable for low voltage 15 to 32 V DC two wires supply, in-built locking mechanism to check the removal and pilferage of the detector, in built isolation mode, start up current 300µA and alarm condition current shall be maximum 6.5 mA, operating temperature 0°C to 50°C, humidity 0-95% RH, IP 41, conforming to IS 2189: 2008, 11360_1985_Reff2020 EN 54 or UL Approved with 3 years equipment replacement warranty FFAFAS/ SD . CSR 13-10-6	NOS	18.00	2,371.00	42,678.00
47	ITEM NO :- 47 Supplying, installing, testing and commissioning of addressable manual call points (break glass type/pull station type), made of addressable break glass plastic square in shape surface/flush mounted with "Break Glass" message embedded on the glass, complete erected with mounting base and required accessories conforming to EN 54 or UL listed with 3 years equipment replacement warranty FF-AFAS/MCP. CSR 13-10-9	NOS	4.00	3,575.00	14,300.00
48	ITEM NO :- 48 Supplying, installing, testing and commissioning of addressable fire control/relay module complete as required, with 3 years equipment replacement warranty conforming to IS 5051Part 2 (Sec 1 to 3) : 1982 reed relays, EN 54 or UL Listed FF-AFAS/CRM CSR 13-10-10	NOS	4.00	3,775.00	15,100.00
49	ITEM NO :- 49 Supplying, installing, testing and commissioning of addressable horn cum strobe sound/ hooter, output frequency 500 to 1000 Hz with dB as per Chart given in IS 15908:2021, with flashing at 1 Hz over the strobe's entire operating voltage range EN 54, conforming to IS 2189: 2008, IS 15908:2021 standards with 3 years equipment replacement warranty FF-AFAS/SSH. CSR 13-10-13	NOS	4.00	7,828.00	31,312.00
ELECTRICAL TOTAL					10,64,780.20
(A)TOTAL ELECTRICAL					10,64,780.20

PROPOSED INTERIOR WORK OF MAKEUP ROOMS AT STUDIO NO. 7					
ELECTRICAL					
Item No.	Description	Unit	Qty.	Rate	Amount
1	ITEM NO :- 01 Dismantling the existing switchgears, DB, and bus bar of any size complete with/ without board or angle iron frame CSR 5-12-1	NOS	6.00	93.00	558.00
2	ITEM NO :- 02 Making the site clear of dismantled DB and switchgears by refilling the holes with cement mortar & finishing in an approved manner. CSR 5-12-2	NOS	6.00	102.00	612.00
3	ITEM NO :- 03 Dismantling the existing ceiling fan /exhaust fan / cabin fan / bracket fan complete with accessories, G.I. down rod, frame etc. and making the site clear. CSR 2-12-4	NOS	9.00	37.00	333.00

4	ITEM NO :- 04 Dismantling the existing W.T. fluorescent fitting / S.V./ M.V. / M.H. lamp /LED fitting from wall with brackets and making the site as original complete. CSR 2-12-2	Nos	20.00	47.00	940.00
5	ITEM NO :- 05 Dismantling the existing electric geyser or storage type water heater of any size along with plumbing connections and making the site clear. CSR 3-12-1	NOS	9.00	187.00	1,683.00
6	ITEM NO :- 06 Dismantling the existing window type air conditioner of any type and capacity safely without any damages and making the site clear. CSR 3-12-2	NOS	9.00	467.00	4,203.00
7	ITEM NO :- 07 Dismantling the existing split type air conditioner of any type and capacity safely without any damages and making the site clear. CSR 3-12-3	NOS	9.00	885.00	7,965.00
8	ITEM NO :- 08 Supplying & erecting triple pole and neutral distribution board (TPNDB), SP/TP MCBs total 12 ways /36 poles, with door, 1.2mm thickness surface/flush mounted, IP 43 Protection on iron/GI frame (vertical busbar type) as per specification no. SW-SWR/MCBDB CSR-5-4-6	NOS	4.00	7,661.00	30,644.00
9	ITEM NO :- 09 Providing & erecting 4 Pole MCCB, 415V, 200A, rated short-circuit breaking capacity 25 kA (Ics=100% of Icu), adjustable thermal (overload) setting and adjustable magnetic setting with provided leads, provision for installation of shunt/UV/trip alarm contact and MCCB should have phase barriers both sides, with insulation withstand capacity 800V, no line-load bias in provided enclosure/panel as per specification no. SW-SWR/MCCBCSR-5-5-2	NOS	4.00	12,724.80	50,899.20
10	ITEM NO :- 10 Supplying, erecting & marking TPMCB 40A to 63A, with rated short - circuit breaking capacity (Icn) 10kA in provided distribution board as per specification no. SW-SWR/MCB CSR 5-3-11	NOS	8.00	992.00	7,936.00
	POINT WIRING - LIGHT POINT				
11	ITEM NO :- 11 Supplying, erecting & marking SPMCB 6A to 32A, C-series with rated short - circuit breaking capacity (Icn) 10kA in provided distribution board as per specification no. SW-SWR/MCB CSR 5-3-2	NOS	8.00	174.00	1,392.00
12	ITEM NO :- 12 Supplying and erecting mains with 2x1.5 sq.mm FRLSH copper PVC insulated wire laid in provided conduit/trunking/inside pole/Bus bars or any other places as per specification No: WG-MA/BW CSR 1-3-1	RMT	300.00	40.00	12,000.00
13	ITEM NO :- 13 Supplying & erecting mains with 2x2.5 sq.mm F.R.L.S copper PVC insulated wire laid in provided conduit/trunking/inside pole/Bus bars or any other places. as per specification No: WGMA/ BW CSR 1-3-2	RMT	120.00	62.00	7,440.00
14	ITEM NO :-14 Supplying & erecting mains with 2x4 sq.mm FRLSH copper PVC insulated wire laid in provided conduit/trunking/inside pole/Bus bars or any other places. as per specification No: WGMA/BW CSR 1-3-3	RMT	90.00	89.00	8,010.00
15	ITEM NO :- 15 Supplying and erecting HMS PVC conduit FRLS grade 25 mm dia. With necessary accessories in wall/floor with chiselling appropriately as per specification No: WG-MA/CC. CSR 1-1-9	RMT	30.00	127.00	3,810.00

	MODULAR SWITCHES AND ACCESSORIES, FAN, EXHAUST FAN				
16	ITEM NO :- 16 Supplying and erecting modular type switch 6A / 10A duly erected on provided plate and box with wiring connections complete. CSR 1-6-1	NOS	150.00	72.00	10,800.00
17	ITEM NO :- 17 Supplying and erecting modular type 3 pin 6A multi socket with safety shutter, duly erected on provided plate and box with wiring connections complete. CSR 1-6-10	NOS	40.00	112.00	4,480.00
18	ITEM NO :- 18 Supplying and erecting modular type 3 pin 6 / 16A multi socket with safety shutter, duly erected on provided plate and box with wiring connections complete. CSR 1-6-11	NOS	20.00	160.00	3,200.00
19	ITEM NO :- 19 Supplying and erecting modular type switch one way 16 / 20 A, duly erected on provided plate and box with wiring connections complete with neon indicator. CSR 1-6-7	NOS	20.00	121.00	2,420.00
20	ITEM NO :- 20 Supplying and erecting unbreakable concealed type modular switch box with double mounting plate for 4 module duly erected flush to wall with required chiselling and finishing with cement mortar / POP as per required to match the background. CSR 1-6-37	NOS	9.00	277.00	2,493.00
21	ITEM NO :- 21 Supplying and erecting unbreakable concealed type modular switch box with double mounting plate for 6 module duly erected flush to wall with required chiselling and finishing with cement mortar / POP as per required to match the background. CSR 1-6-38	NOS	20.00	335.00	6,700.00
22	ITEM NO :- 22 Supplying and erecting unbreakable concealed type modular switch box with double mounting plate for 8 module duly erected flush to wall with required chiselling and finishing with cement mortar / POP as per required to match the background. CSR 1-6-39	NOS	20.00	417.00	8,340.00
23	ITEM NO :-23 Supplying and erecting unbreakable concealed type modular switch box with double mounting plate for 12 module duly erected flush to wall with required chiselling and finishing with cement mortar / POP as per required to match the background. CSR 1-6-40	NOS	9.00	523.00	4,707.00
24	ITEM NO :- 24 Supplying and erecting exhaust fan medium duty 230 V A.C. 50 cycles 225 mm. 1400 RPM with condenser complete erected in position with necessary materials. Fan motor with moisture proof treatment and 'E' class insulation CSR 2-10-15+B29:B30	NOS	9.00	2,032.00	18,288.00
25	ITEM NO :- 25 Supplying, erecting, testing & commissioning fresh air intake system, ductable circular inline fresh air fan inlet unit having 300 cfm capacity with maintaining the static pressure minimum 20 mm of Hg complete suitable to operate on 1ph, 230 V, 50Hz, A.C. supply. CSR 3-11-60	NOS	9.00	5,220.00	46,980.00
26	ITEM NO :- 26 Supply, Fabrication, installation and testing of 24G sheet metal ducts in accordance with the approved shop drawings and as required by the specifications. The item rate shall include the cost of supporting arrangement / structure as per technical specification. MR	SMT	40.00	1,460.00	58,400.00
27	ITEM NO :- 27 Supplying and erecting Ceiling rose / Batten holder / Slanting holder / hanging cord switch / hanging bell push / pendant holder bakelite base 6A. erected on filled polypropylene board or polished double wooden block/ PVC junction box. CSR 1-5-7	NOS	9.00	39.00	351.00
28	ITEM NO :- 28	NOS	9.00	2,275.00	20,475.00

	Supplying and erecting regular/ standard model ceiling fan of 1400mm. sweep complete erected in position as per specification no. FG-FN/CF CSR 2-10-3				
29	ITEM NO :- 29 Supplying and erecting electronic type step regulator for ceiling fan 600/ 900/ 1200/ 1400 mm. sweep, complete erected on provided switch board CSR 2-11-9	NOS	9.00	206.00	1,854.00
30	ITEM NO :- 30 Supplying and erecting fan hook box of 10 mm M.S. round bar bounded to the R.C.C. bars upto 50 mm length each side and pierced through a 16 S.W.G. thick aluminium/M.S. Bowl 100 mm dia.or equivalent square size and having depth upto 75 mm complete erected with duly painted by one coat of red oxide paint and two coats of paint erected in position and without any leakage of slurry of cement concrete on either side of the box and positioned to the bottom level of the slab. CSR 2-11-5	NOS	9.00	176.00	1,584.00
	EARTHING (EA)				
31	ITEM NO :- 31 Providing pipe type earthing with 40mm. dia. G.I. pipe or 20 mm dia. G.I. Rod complete with all materials as per specification No. EA-EP CSR 9-1-4	NOS	9.00	1,500.00	13,500.00
32	ITEM NO :- 32 Providing earthing with copper earth plate size 30 x 30 x 0.315 cm complete with all materials, testing & recording the results as per specification no. EA-EP CSR 9-1-2	NOS	1.00	6,486.00	6,486.00
	INDOOR LED FITTING				
33	ITEM NO :- 33 Supplying & erecting inverter LED batten 20W tube light fitting with polycarbonate housing, heat sink, integrated HF electronic driver, Min. 2600 mAh Lithium ion Battery with charging time of 8-10 Hours and backup time of Min. 3 hrs. with minimum 25% of initial Watts having luminous efficacy of 100 lumen/watt, CRI>80, CCT of 6500K and THD<=20% having useful life of minimum 25000 hrs. with overheating protection with 2 years warranty.. CSR 2-1-22	NOS	5.00	1,114.00	5,570.00
34	ITEM NO :- 34 Supplying and erecting LED square / circular Max. 14 W down lighter/Panel Light having pressure die-cast aluminium housing, polystyrene diffuser having system lumens output of Min. 1500 Lumens, min. efficacy of 110 lumen/W, CRI>80, CCT upto 6500K, Beam Angle of 120 deg., max. ripple of 5%, THD<10%, p.f. >0.95, operating range of 120-270V, surge protection of 2.5 kV, Life class of 50,000 Hrs. at L70B50, including driver, having mounting arrangement with board for surface type or spring loaded mounting clips complete with 3 years warranty CSR 2-1-4	NOS	90.00	1,213.00	1,09,170.00
35	ITEM NO :- 35 Supplying and erecting LED Strip light 5m Length Max. 95 W IP20 class having minimum lumens output of 1600 Lumens/m, min. efficacy of 90 lumen/W, CRI>80, CCT upto 5000K, Beam Angle of 110 deg., THD<10%, p.f. >0.95, operating range of 230-270V, Life class of 30,000 Hrs. at L70B50 including driver with 1 year warranty. CSR 2-1-11	NOS	9.00	2,744.00	24,696.00
	CCTV				
36	ITEM NO :- 36 Supplying, fixing, and configuring 8-ports 1 G unmanaged gigabit POE switch erected in provided rack complete. CSR 1-11-1	NOS	1.00	17,973.00	17,973.00
37	ITEM NO :- 37 Providing, commissioning and maintaining temporary CCTV system with 8 channel NVR, IP video/audio input - 1 no, IP based 4.0 MP, Full HD, IR IP dome camera - 2 nos, IP based 4.0 MP, Full HD, IR IP PTZ camera - 2 nos, 4TB Hard Disk - 2 no, 42" Full H D professional display - 1 no, 8 port PoE Switch - 1 no, Power supply unit to camera - 1 no, On Line UPS - 1 no with necessary mains, switchgears on hire basis for one day CSR 14-1-55	JOB	1.00	12,474.00	12,474.00

38	ITEM NO :- 38 Supplying and fixing 9U wall mount rack (Dimension-DxWxH – 500x600x500 mm) as per specification No. WG-NAS/RAK CSR 1-12-18	NOS	1.00	9,066.00	9,066.00
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Item No.	Description	Unit	Qty.	Rate	Amount
39	ITEM NO :-39 Supplying and installing cat-6 cable suitable for networking as per specification no. WG-COC/NC CSR 1-10-1	RMT	180.00	53.00	9,540.00
40	ITEM NO :- 40 Supplying, installing, testing & commissioning split type variable speed inverter technology with minimum 3 to 1 convertible mode for compressor, room air conditioning unit 1.3TR to 1.6TR capacity having ISEER minimum 5.00 suitable to operate on 250V, 50 Hz, A.C. supply having 1 no of air handling unit hi-wall/floor mounting type complete with refrigerant R32 having copper condenser, minimum 2.5PM filter, self diagnosis feature, stabilizer free operation & temperature display on indoor unit, noise level maximum 50dBA at position as per specification no. APAC/ WAC CSR 3-2-11	NOS	7.00	55,578.00	3,89,046.00
41	ITEM NO :- 41 Supplying, installing, testing & commissioning split type variable speed inverter technology with minimum 3 to 1 convertible mode for compressor. room air conditioning unit 1.7TR to 2.0TR capacity having ISEER minimum 5.0 suitable to operate on 250V, 50 Hz, A.C. supply having 1 no of air handling unit hi-wall/floor mounting type complete with refrigerant R32 having copper condenser, minimum 2.5PM filter, self diagnosis feature, stabilizer free operation & temperature display on indoor unit, noise level maximum 50dBA at position in provided recess with wooden frame complete specification no. AP-AC/WAC CSR 3-2-13	NOS	2.00	61,440.00	1,22,880.00
42	ITEM NO :- 42 Supplying & erecting seamless outside & inside, smooth, dry and clean copper pipe with ROHS compliant suitable for refrigerant having 22SWG thickness and inner dia/size 12mm complete. CSR 3-2-26	RMT	90.00	300.00	27,000.00
43	ITEM NO :- 43 Supplying & erecting seamless outside & inside, smooth, dry and clean copper pipe with ROHS compliant suitable for refrigerant having 22SWG thickness and inner dia/size 16mm complete. CSR 3-2-27	RMT	90.00	450.00	40,500.00
FIRE ALARAM /SMOKE DETECTOR					
44	ITEM NO :- 44 Supplying, installing, testing and commissioning of micro processor based intelligent addressable main fire alarm panel, central processing unit with the 2 loop capacity and capable of supporting upto 250 devices and detectors per loop, with on-board LCD display with min 16 lines of text, operating at 230 V 50 HZ - AC with inbuilt Battery Backup of a minimum 24 hours in normal condition and 30 min in alarm condition, suitable provision for network connectivity, interfacing with third party equipment via a MODBUS/ OPC/ L-ON interface etc. conforming to IS 15908:2021, IS 2189: 2008, EN 54 & VDS / FM/ UL 864 (10th edition) with 3 years replacement warranty FF-AFAS/CP. CSR 13-10-2	NOS	1.00	1,71,990.00	1,71,990.00
45	ITEM NO :- 45 Supplying, installing, testing and commissioning of addressable optical smoke detector, single/twin LED's with 360 degree view, suitable for low voltage 15 to 32 V DC two wires supply, in-built locking mechanism to check the removal and pilferage of the detector, in built isolation mode, start up current 300µA and alarm condition current shall be maximum 6.5 mA, operating temperature 0°C to 50°C, humidity 0-95% RH, IP 41, conforming to IS 2189: 2008, 11360_1985_Reff2020 EN 54 or UL Approved with 3 years equipment replacement warranty FFAFAS/ SD . CSR 13-10-6	NOS	18.00	2,371.00	42,678.00

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
46	ITEM NO :- 46 Supplying, installing, testing and commissioning of addressable manual call points (break glass type/pull station type), made of addressable break glass plastic square in shape surface/flush mounted with "Break Glass" message embedded on the glass, complete erected with mounting base and required accessories conforming to EN 54 or UL listed with 3 years equipment replacement warranty FF-AFAS/MCP. CSR 13-10-9	NOS	4.00	3,575.00	14,300.00
47	ITEM NO :- 47 Supplying, installing, testing and commissioning of addressable fire control/relay module complete as required, with 3 years equipment replacement warranty conforming to IS 5051Part 2 (Sec 1 to 3) : 1982 reed relays, EN 54 or UL Listed FF-AFAS/CRM CSR 13-10-10	NOS	4.00	3,775.00	15,100.00
48	ITEM NO :- 48 Supplying, installing, testing and commissioning of addressable horn cum strobe sound/ hooter, output frequency 500 to 1000 Hz with dB as per Chart given in IS 15908:2021, with flashing at 1 Hz over the strobe's entire operating voltage range EN 54, conforming to IS 2189: 2008, IS 15908:2021 standards with 3 years equipment replacement warranty FF-AFAS/SSH. CSR 13-10-13	NOS	4.00	7,828.00	31,312.00
TOTAL					13,92,778.20
(A)TOTAL ELECTRICAL					13,92,778.20

PROPOSED INTERIOR WORK OF MAKEUP ROOMS AT STUDIO NO. 16					
ELECTRICAL					
Item No.	Description	Unit	Qty.	Rate	Amount
1	ITEM NO :- 01 Dismantling the existing switchgears, DB, and bus bar of any size complete with/ without board or angle iron frame CSR 5-12-1	NOS	6.00	93.00	558.00
2	ITEM NO :- 02 Making the site clear of dismantled DB and switchgears by refilling the holes with cement mortar & finishing in an approved manner. CSR 5-12-2	NOS	6.00	102.00	612.00
3	ITEM NO :- 03 Dismantling the existing ceiling fan /exhaust fan / cabin fan / bracket fan complete with accessories, G.I. down rod, frame etc. and making the site clear. CSR 2-12-4	NOS	12.00	37.00	444.00
4	ITEM NO :- 04 Dismantling the existing W.T. fluorescent fitting / S.V. / M.V. / M.H. lamp /LED fitting from wall with brackets and making the site as original complete. CSR 2-12-2	Nos	20.00	47.00	940.00
5	ITEM NO :- 05 Dismantling the existing electric geyser or storage type water heater of any size along with plumbing connections and making the site clear.	NOS	10.00	187.00	1,870.00

	CSR 3-12-1				
6	ITEM NO :- 06 Dismantling the existing window type air conditioner of any type and capacity safely without any damages and making the site clear. CSR 3-12-2	NOS			
7	ITEM NO :- 07 Dismantling the existing split type air conditioner of any type and capacity safely without any damages and making the site clear. CSR 3-12-3	NOS	10.00	885.00	8,850.00
8	ITEM NO :- 08 Supplying & erecting triple pole and neutral distribution board (TPNDB), SP/TP MCBs total 12 ways /36 poles, with door, 1.2mm thickness surface/flush mounted, IP 43 Protection on iron/GI frame (vertical busbar type) as per specification no. SW-SWR/MCBDB CSR-5-4-6	NOS	4.00	7,661.00	30,644.00
9	ITEM NO :- 09 Providing & erecting 4 Pole MCCB, 415V, 200A, rated short-circuit breaking capacity 25 kA (Ics=100% of Icu), adjustable thermal (overload) setting and adjustable magnetic setting with provided leads, provision for installation of shunt/UV/trip alarm contact and MCCB should have phase barriers both sides, with insulation withstand capacity 800V, no line-load bias in provided enclosure/panel as per specification no. SW-SWR/MCCB CSR-5-5-2	NOS	4.00	12,724.80	50,899.20
10	ITEM NO :- 10 Supplying, erecting & marking TPMCB 40A to 63A, with rated short - circuit breaking capacity (Icn) 10kA in provided distribution board as per specification no. SW-SWR/MCB CSR 5-3-11	NOS	8.00	992.00	7,936.00
	POINT WIRING - LIGHT POINT				
11	ITEM NO :- 11 Supplying, erecting & marking SPMCB 6A to 32A, C-series with rated short - circuit breaking capacity (Icn) 10kA in provided distribution board as per specification no. SW-SWR/MCB CSR 5-3-2	NOS	8.00	174.00	1,392.00
12	ITEM NO :- 12 Supplying and erecting mains with 2x1.5 sq.mm FRLSH copper PVC insulated wire laid in provided conduit/trunking/inside pole/Bus bars or any other places as per specification No: WG-MA/BW CSR 1-3-1	RMT	300.00	40.00	12,000.00
13	ITEM NO :- 13 Supplying & erecting mains with 2x2.5 sq.mm F.R.L.S copper PVC insulated wire laid in provided conduit/trunking/inside pole/Bus bars or any other places. as per specification No: WGMA/ BW CSR 1-3-2	RMT	120.00	62.00	7,440.00
14	ITEM NO :-14 Supplying & erecting mains with 2x4 sq.mm FRLSH copper PVC insulated wire laid in provided conduit/trunking/inside pole/Bus bars or any other places. as per specification No: WGMA/BW CSR 1-3-3	RMT	90.00	89.00	8,010.00
15	ITEM NO :- 15 Supplying and erecting HMS PVC conduit FRLS grade 25 mm dia. With necessary accessories in wall/floor with chiselling appropriately as per specification No: WG-MA/CC. CSR 1-1-9	RMT	30.00	127.00	3,810.00
	MODULAR SWITCHES AND ACCESSORIES, FAN, EXHAUST FAN				
16	ITEM NO :- 16 Supplying and erecting modular type switch 6A / 10A duly erected on provided plate and box with wiring connections complete. CSR 1-6-1	NOS	150.00	72.00	10,800.00
17	ITEM NO :- 17 Supplying and erecting modular type 3 pin 6A multi socket with safety shutter, duly erected on provided plate and box with wiring connections complete. CSR 1-6-10	NOS	40.00	112.00	4,480.00

Item No.	Description	Unit	Qty.	Rate	Amount
18	ITEM NO :- 18 Supplying and erecting modular type 3 pin 6 / 16A multi socket with safety shutter, duly erected on provided plate and box with wiring connections complete. CSR 1-6-11	NOS	20.00	160.00	3,200.00
19	ITEM NO :- 19 Supplying and erecting modular type switch one way 16 / 20 A, duly erected on provided plate and box with wiring connections complete with neon indicator. CSR 1-6-7	NOS	20.00	121.00	2,420.00
20	ITEM NO :- 20 Supplying and erecting unbreakable concealed type modular switch box with double mounting plate for 4 module duly erected flush to wall with required chiselling and finishing with cement mortar / POP as per required to match the background. CSR 1-6-37	NOS	12.00	277.00	3,324.00
21	ITEM NO :- 21 Supplying and erecting unbreakable concealed type modular switch box with double mounting plate for 6 module duly erected flush to wall with required chiselling and finishing with cement mortar / POP as per required to match the background. CSR 1-6-38	NOS	20.00	335.00	6,700.00
22	ITEM NO :- 22 Supplying and erecting unbreakable concealed type modular switch box with double mounting plate for 8 module duly erected flush to wall with required chiselling and finishing with cement mortar / POP as per required to match the background. CSR 1-6-39	NOS	20.00	417.00	8,340.00
23	ITEM NO :-23 Supplying and erecting unbreakable concealed type modular switch box with double mounting plate for 12 module duly erected flush to wall with required chiselling and finishing with cement mortar / POP as per required to match the background. CSR 1-6-40	NOS	12.00	523.00	6,276.00
24	ITEM NO :- 24 Supplying and erecting exhaust fan medium duty 230 V A.C. 50 cycles 225 mm. 1400 RPM with condenser complete erected in position with necessary materials. Fan motor with moisture proof treatment and 'E' class insulation CSR 2-10-15+B29:B30	NOS	12.00	2,032.00	24,384.00
25	ITEM NO :- 25 Supplying, erecting, testing & commissioning fresh air intake system, ductable circular inline fresh air fan inlet unit having 300 cfm capacity with maintaining the static pressure minimum 20 mm of Hg complete suitable to operate on 1ph, 230 V, 50Hz, A.C. supply. CSR 3-11-60	NOS	6.00	5,220.00	31,320.00
26	ITEM NO :- 26 Supply, Fabrication, installation and testing of 24G sheet metal ducts in accordance with the approved shop drawings and as required by the specifications. The item rate shall include the cost of supporting arrangement / structure as per technical specification. MR	SMT	40.00	1,460.00	58,400.00
27	ITEM NO :- 27 Supplying and erecting Ceiling rose / Batten holder / Slanting holder / hanging cord switch / hanging bell push / pendant holder bakelite base 6A. erected on filled polypropylene board or polished double wooden block/ PVC junction box. CSR 1-5-7	NOS	12.00	39.00	468.00
28	ITEM NO :- 28 Supplying and erecting regular/ standard model ceiling fan of 1400mm. sweep complete erected in position as per specification no. FG-FN/CF CSR 2-10-3	NOS	12.00	2,275.00	27,300.00
29	ITEM NO :- 29 Supplying and erecting electronic type step regulator for ceiling fan 600/ 900/ 1200/ 1400 mm. sweep, complete erected on provided switch board CSR 2-11-9	NOS	15.00	206.00	3,090.00

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
30	ITEM NO :- 30 Supplying and erecting fan hook box of 10 mm M.S. round bar bounded to the R.C.C. bars upto 50 mm length each side and pierced through a 16 S.W.G. thick aluminium/M.S. Bowl 100 mm dia.or equivalent square size and having depth upto 75 mm complete erected with duly painted by one coat of red oxide paint and two coats of paint erected in position and without any leakage of slurry of cement concrete on either side of the box and positioned to the bottom level of the slab. CSR 2-11-5	NOS	12.00	176.00	2,112.00
EARTHING (EA)					
31	ITEM NO :- 31 Providing pipe type earthing with 40mm. dia. G.I. pipe or 20 mm dia. G.I. Rod complete with all materials as per specification No. EA-EP CSR 9-1-4	NOS	9.00	1,500.00	13,500.00
32	ITEM NO :- 32 Providing earthing with copper earth plate size 30 x 30 x 0.315 cm complete with all materials, testing & recording the results as per specification no. EA-EP CSR 9-1-2	NOS	4.00	6,486.00	25,944.00
INDOOR LED FITTING					
33	ITEM NO :- 33 Supplying & erecting inverter LED batten 20W tube light fitting with polycarbonate housing, heat sink, integrated HF electronic driver, Min. 2600 mAh Lithium ion Battery with charging time of 8-10 Hours and backup time of Min. 3 hrs. with minimum 25% of initial Watts having luminous efficacy of 100 lumen/watt, CRI>80, CCT of 6500K and THD<=20% having useful life of minimum 25000 hrs. with overheating protection with 2 years warranty.. CSR 2-1-22	NOS	20.00	1,114.00	22,280.00
34	ITEM NO :- 34 Supplying and erecting LED square / circular Max. 14 W down lighter/Panel Light having pressure die-cast aluminium housing, polystyrene diffuser having system lumens output of Min. 1500 Lumens, min. efficacy of 110 lumen/W, CRI>80, CCT upto 6500K, Beam Angle of 120 deg., max. ripple of 5%, THD<10%, p.f. >0.95, operating range of 120-270V, surge protection of 2.5 kV, Life class of 50,000 Hrs. at L70B50, including driver, having mounting arrangement with board for surface type or spring loaded mounting clips complete with 3 years warranty CSR 2-1-4	NOS	120.00	1,213.00	1,45,560.00
35	ITEM NO :- 35 Supplying and erecting LED Strip light 5m Length Max. 95 W IP20 class having minimum lumens output of 1600 Lumens/m, min. efficacy of 90 lumen/W, CRI>80, CCT upto 5000K, Beam Angle of 110 deg., THD<10%, p.f. >0.95, operating range of 230-270V, Life class of 30,000 Hrs. at L70B50 including driver with 1 year warranty. CSR 2-1-11	NOS	20.00	2,744.00	54,880.00
CCTV					
36	ITEM NO :- 36 Supplying, fixing, and configuring 8-ports 1 G unmanaged gigabit POE switch erected in provided rack complete. CSR 1-11-1	NOS	1.00	17,973.00	17,973.00
37	ITEM NO :- 37 Providing, commissioning and maintaining temporary CCTV system with 8 channel NVR, IP video/audio input - 1 no, IP based 4.0 MP, Full HD, IR IP dome camera - 2 nos, IP based 4.0 MP, Full HD, IR IP PTZ camera - 2 nos, 4TB Hard Disk - 2 no, 42" Full H D professional display - 1 no, 8 port PoE Switch - 1 no, Power supply unit to camera - 1 no, On Line UPS - 1 no with necessary mains, switchgears on hire basis for one day CSR 14-1-55	JOB	1.00	12,474.00	12,474.00
38	ITEM NO :- 38 Supplying and fixing 9U wall mount rack (Dimension-DxWxH – 500x600x500 mm) as per specification No. WG-NAS/RAK CSR 1-12-18	NOS	1.00	9,066.00	9,066.00

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

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Item No.	Description	Unit	Qty.	Rate	Amount
39	ITEM NO :-39 Supplying and installing cat-6 cable suitable for networking as per specification no. WG-COC/NC CSR 1-10-1	RMT	180.00	53.00	9,540.00
40	ITEM NO :- 40 Supplying, installing, testing & commissioning split type variable speed inverter technology with minimum 3 to 1 convertible mode for compressor, room air conditioning unit 1.3TR to 1.6TR capacity having ISEER minimum 5.00 suitable to operate on 250V, 50 Hz, A.C. supply having 1 no of air handling unit hi-wall/floor mounting type complete with refrigerant R32 having copper condenser, minimum 2.5PM filter, self diagnosis feature, stabilizer free operation & temperature display on indoor unit, noise level maximum 50dBA at position as per specification no. APAC/ WAC CSR 3-2-11	NOS	12.00	55,578.00	6,66,936.00
41	ITEM NO :- 41 Supplying, installing, testing & commissioning split type variable speed inverter technology with minimum 3 to 1 convertible mode for compressor. room air conditioning unit 1.7TR to 2.0TR capacity having ISEER minimum 5.0 suitable to operate on 250V, 50 Hz, A.C. supply having 1 no of air handling unit hi-wall/floor mounting type complete with refrigerant R32 having copper condenser, minimum 2.5PM filter, self diagnosis feature, stabilizer free operation & temperature display on indoor unit, noise level maximum 50dBA at position in provided recess with wooden frame complete specification no. AP-AC/WAC CSR 3-2-13	NOS	2.00	61,440.00	1,22,880.00
42	ITEM NO :- 42 Supplying & erecting seamless outside & inside, smooth, dry and clean copper pipe with ROHS compliant suitable for refrigerant having 22SWG thickness and inner dia/size 12mm complete. CSR 3-2-26	RMT	120.00	300.00	36,000.00
43	ITEM NO :- 43 Supplying & erecting seamless outside & inside, smooth, dry and clean copper pipe with ROHS compliant suitable for refrigerant having 22SWG thickness and inner dia/size 16mm complete. CSR 3-2-27	RMT	120.00	450.00	54,000.00
FIRE ALARAM /SMOKE DETECTOR					
44	ITEM NO :- 44 Supplying, installing, testing and commissioning of micro processor based intelligent addressable main fire alarm panel, central processing unit with the 2 loop capacity and capable of supporting upto 250 devices and detectors per loop, with on-board LCD display with min 16 lines of text, operating at 230 V 50 HZ - AC with inbuilt Battery Backup of a minimum 24 hours in normal condition and 30 min in alarm condition, suitable provision for network connectivity, interfacing with third party equipment via a MODBUS/ OPC/ L-ON interface etc. conforming to IS 15908:2021, IS 2189: 2008, EN 54 & VDS / FM/ UL 864 (10th edition) with 3 years replacement warranty FF-AFAS/CP. CSR 13-10-2	NOS	1.00	1,71,990.00	1,71,990.00
45	ITEM NO :- 45 Supplying, installing, testing and commissioning of addressable optical smoke detector, single/twin LED's with 360 degree view, suitable for low voltage 15 to 32 V DC two wires supply, in-built locking mechanism to check the removal and pilferage of the detector, in built isolation mode, start up current 300µA and alarm condition current shall be maximum 6.5 mA, operating temperature 0°C to 50°C, humidity 0-95% RH, IP 41, conforming to IS 2189: 2008, 11360_1985_Reff2020 EN 54 or UL Approved with 3 years equipment replacement warranty FFAFAS/ SD . CSR 13-10-6	NOS	30.00	2,371.00	71,130.00

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

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Item No.	Description	Unit	Qty.	Rate	Amount
46	ITEM NO :- 46 Supplying, installing, testing and commissioning of addressable manual call points (break glass type/pull station type), made of addressable break glass plastic square in shape surface/flush mounted with "Break Glass" message embedded on the glass, complete erected with mounting base and required accessories conforming to EN 54 or UL listed with 3 years equipment replacement warranty FF-AFAS/MCP. CSR 13-10-9	NOS	4.00	3,575.00	14,300.00
47	ITEM NO :- 47 Supplying, installing, testing and commissioning of addressable fire control/relay module complete as required, with 3 years equipment replacement warranty conforming to IS 5051Part 2 (Sec 1 to 3) : 1982 reed relays, EN 54 or UL Listed FF-AFAS/CRM CSR 13-10-10	NOS	4.00	3,775.00	15,100.00
48	ITEM NO :- 48 Supplying, installing, testing and commissioning of addressable horn cum strobe sound/ hooter, output frequency 500 to 1000 Hz with dB as per Chart given in IS 15908:2021, with flashing at 1 Hz over the strobe's entire operating voltage range EN 54, conforming to IS 2189: 2008, IS 15908:2021 standards with 3 years equipment replacement warranty FF-AFAS/SSH. CSR 13-10-13	NOS	6.00	7,828.00	46,968.00
TOTAL					18,43,210.20
(A)TOTAL ELECTRICAL					18,43,210.20

ESTIMATE

**ESTIMATE FOR FIRE FIGHTING SYSTEM WORKS OF STUDIO 1, 2, 5, 7, 16 & HOSPITAL BUILDING AT DADASAHEB PHALKE
CHITRANAGARI, GOREGAON (EAST), MUMBAI - 400 065**

ABSTRACT SHEET

Item No.	Description	Unit	Qty.	Rate	Amount
Studio 1					
1	Supplying and erecting ABC powder type fire extinguisher as per IS : 15683 of 6 kg capacity with necessary clamp for erection on wall.	Nos	4	3,535.00	14,140.00
2	Supplying & erecting Carbon Dioxide (CO2) fire extinguisher of 4.5 kg. Capacity Cartridge type conf. To IS 15683 Complete erected with necessary clamp made from 50x6 mm. M. S. flat with nut & bolts grouted in wall complete.	Nos	1	9,943.00	9,943.00
3	Supplying, installing, testing and commissioning of Booster Pump suitable to water discharge of 450 LPM at average 35 m Head, driven by electric motor 415 volts, 3 phase 50 Hz, AC supply of 5.5 KW or of suitable KW.	Each	1	45,951.00	45,951.00
4	Supplying & erecting automatic control panel for 3 Ph, 415 volt, centrifugal pump set upto 7.5 - 10 HP consisting of Star Delta starter having relay range 13-22 Amp, S.P.P., Combined ammeter/voltmeter, phase indicating lamp enclosed in CRCA powder coated Vibration proof encloser with IP 54 protection. Control Panel should offer single phasing, phase reversal, phase imbalance etc with auto manual on / off of pump.	No.	1	7,591.00	7,591.00
5	Supplying and erecting PVC armoured cable from motor to starter 3 core 6 sq mm Cu conductor with continuous 5.48 sq mm (12 SWG) G.I. earth wire complete erected with glands and lugs, on wall or laid in provided trench/ pipe as per specification no. CB-LT/CU	Mtr	50	318.00	15,900.00
6	Supplying and installing Pressure Gauge of 100 mm dia 0 - 7 Kg/cm2 fitted with 12/15 mm dia pad cock valve, and GI pipe, elbow etc. as per requirement in an approved manner as per specification no. FF-FFA/PG.	Nos.	1	810.00	810.00
7	Supplying and installing Danfoss make pressure switch with 12/15 mm dia isolation Valve, GI nipple, elbow etc. in an approved manner as per specification no. FF-FFA/PS	Nos.	1	1,853.00	1,853.00
8	Supplying and installing G.I. pipe above ground of C class ERW of size 150 mm dia with with necessary fittings as per specification no. FF-PP	Mtrs.	18	2,463.00	44,334.00
9	Supplying and installing G.I. pipe above ground of C class ERW of size 100 mm dia with with necessary fittings as per specification no. FF-PP	Mtrs.	132	1,640.00	2,16,480.00
10	Supplying and installing G.I. pipe above ground of C class ERW of size 80 mm dia with with necessary fittings as per specification no. FF-PP	Mtrs.	18	1,164.00	20,952.00
11	Supplying and installing double flange Non - Return Valve of size 100 mm dia as per specification FF-VL/NRV	Nos.	1	8,642.00	8,642.00
12	Supplying and installing double flange Non - Return Valve of size 150 mm dia as per specification FF-VL/NRV	Nos.	1	14,147.00	14,147.00
13	Supplying and installing cast iron double flange Butterfly Valve of size 100 mm dia as per specification no. FF-VL/BFV	Nos.	1	4,317.00	4,317.00
14	Supplying and installing cast iron double flange Butterfly Valve of size 150 mm dia as per specification no. FF-VL/BFV	Nos.	2	6,416.00	12,832.00
15	Supplying and installing 100 mm dia end line strainer for + ve suction as per specification no. FF-VL/ELS.	Nos.	1	6,670.00	6,670.00
16	Supplying and installing Stainless Steel single outlet hydrant valve fitted with necessary accessories complete as per specification No. FF-VL/HV	Nos.	4	6,090.00	24,360.00
17	Supplying Stainless Steel Branch Pipes of 63 mm dia. fitted with 20 mm dia detachable hexagonal nozzle as per specification no. FF-FFA/NZ	Nos.	4	2,028.00	8,112.00
18	Supplying Fire fighting RRL Hose pipe, 15 mtr in length fitted with necessary accessories complete as per specification no. FF-FFA/RRL	Nos.	8	5,491.00	43,928.00
19	Supplying and erecting M.S./CRCA cabinet for housing Floor Hydrant valve, hose pipe, hose reel and branch pipe (size 1000 mm x 736mm x 736 mm.) made from 16 SWG sheet and angle iron 25 mm. x 25 mm. x 4 mm. having front doors with viewing glass (8"x6") and locking arrangement with necessary fixing material such as rubber bidding etc. duly painted in post box red colour.	Nos.	4	16,660.00	66,640.00

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
20	Supplying and erecting 25 mm dia GM Air Release Cock with necessary GI coupling to be fitted on top of air vessel or on wet riser as per specification no. FF-FFA/ARV.	Nos.	1	884.00	884.00
21	Supplying and installing Fire Brigade Header (Siamese Connection) of 150 mm dia, supplying water to wet riser system as per specification no. FF-FFA/SMC	No.	1	12,169.00	12,169.00
22	Excavating soft Murum/Soil roadby chiseling for laying cables, pipes & clearing the site by removing debris & making the site good.	Cu. M .	10	300.00	3,000.00
23	Supplying and installing wall mounting swinging Hose reel drum fitted with 19 mm dia. 30m high pressure polypropylene (Polyhose) long fitted with necessary accessories complete as per specification No. FF-FFA/HV	Nos	4	7,023.00	28,092.00
24	Supplying, erecting, testing and commissioning the 2 Zones Microprocessor based conventional Fire Alarm Control Panel (FACP) with standard accessories complete as per specification No. FF-FAAS/FACP	Nos	1	17,929.00	17,929.00
25	Supplying, erecting, testing and commissioning manual call point (Pill box) with break glass push button and flip abort switch or agent release switch in metal enclosure complete as per specification no. FF-FAAS/MCP	Nos	1	585.00	585.00
26	Supply and erecting hooters with CRCA enclosure complete as per specification No.FF-FAAS/HTR	Nos	2	643.00	1,286.00
27	Supplying and erecting XLPE armoured cable 2 core 1.5 sq.mm. FRLS copper conductor complete erected on wall / ceiling as per specification No.CB-LT/CU	Mtrs	300	114.24	34,272.00
28	Supplying, erecting testing and commissioning beam smoke detector four wire single ended reflected type with 8 " receiver having digital display for easy alignment, adjustable sensitivity & heater kit for transmitter/receiver and reflector with necessary connections on suitable back box. The protection range of beam detector is 5 to 70 m.	Nos	2	58,386.00	1,16,772.00
STUDIO 1 TOTAL					7,82,591.00

Studio 2					
Item No.	Description	Unit	Qty.	Rate	Amount
1	Supplying and erecting ABC powder type fire extinguisher as per IS : 15683 of 6 kg capacity with necessary clamp for erection on wall.	Nos	4	3,535.00	14,140.00
2	Supplying & erecting Carbon Dioxide (CO2) fire extinguisher of 4.5 kg. Capacity Cartridge type conf. To IS 15683 Complete erected with necessary clamp made from 50x6 mm. M. S. flat with nut & bolts grouted in wall complete.	Nos	1	9,943.00	9,943.00
3	Supplying, installing, testing and commissioning of Booster Pump suitable to water discharge of 450 LPM at average 35 m Head, driven by electric motor 415 volts, 3 phase 50 Hz, AC supply of 5.5 KW or of suitable KW.	Each	1	45,951.00	45,951.00
4	Supplying & erecting automatic control panel for 3 Ph, 415 volt, centrifugal pump set upto 7.5 - 10 HP consisting of Star Delta starter having relay range 13-22 Amp, S.P.P., Combined ammeter/ voltmeter, phase indicating lamp enclosed in CRCA powder coated Vibration proof encloser with IP 54 protection. Control Panel should offer single phasing, phase reversal, phase inbalance etc with auto manual on / off of pump.	No.	1	7,591.00	7,591.00
5	Supplying and erecting PVC armoured cable from motor to starter 3 core 6 sq mm Cu conductor with continuous 5.48 sq mm (12 SWG) G.I. earth wire complete erected with glands and lugs, on wall or laid in provided trench/ pipe as per specification no. CB-LT/CU	Mtr	50	318.00	15,900.00
6	Supplying and installing Pressure Gauge of 100 mm dia 0 - 7 Kg/cm2 fitted with 12/15 mm dia pad cock valve, and GI pipe, elbow etc. as per requirement in an approved manner as per specification no. FF-FFA/PG.	Nos.	1	810.00	810.00
7	Supplying and installing Danfoss make pressure switch with 12/15 mm dia isolation Valve, GI nipple, elbow etc. in an approved manner as per specification no. FF-FFA/PS	Nos.	1	1,853.00	1,853.00
8	Supplying and installing G.I. pipe above ground of C class ERW of size 150 mm dia with with necessary fittings as per specification no. FF-PP	Mtrs.	18	2,463.00	44,334.00

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
9	Supplying and installing G.I. pipe above ground of C class ERW of size 100 mm dia with with necessary fittings as per specification no. FF-PP	Mtrs.	168	1,640.00	2,75,520.00
10	Supplying and installing G.I. pipe above ground of C class ERW of size 80 mm dia with with necessary fittings as per specification no. FF-PP	Mtrs.	18	1,164.00	20,952.00
11	Supplying and installing double flange Non - Return Valve of size 100 mm dia as per specification FF-VL/NRV	Nos.	1	8,642.00	8,642.00
12	Supplying and installing double flange Non - Return Valve of size 150 mm dia as per specification FF-VL/NRV	Nos.	1	14,147.00	14,147.00
13	Supplying and installing cast iron double flange Butterfly Valve of size 100 mm dia as per specification no. FF-VL/BFV	Nos.	1	4,317.00	4,317.00
14	Supplying and installing cast iron double flange Butterfly Valve of size 150 mm dia as per specification no. FF-VL/BFV	Nos.	2	6,416.00	12,832.00
15	Supplying and installing 100 mm dia end line strainer for + ve suction as per specification no. FF-VL/ELS.	Nos.	1	6,670.00	6,670.00
16	Supplying and installing Stainless Steel single outlet hydrant valve fitted with necessary accessories complete as per specification No. FF-VL/HV	Nos.	4	6,090.00	24,360.00
17	Supplying Stainless Steel Branch Pipes of 63 mm dia. fitted with 20 mm dia detachable hexagonal nozzle as per specification no. FF-FFA/NZ	Nos.	4	2,028.00	8,112.00
18	Supplying Fire fighting RRL Hose pipe, 15 mtr in length fitted with necessary accessories complete as per specification no. FF-FFA/RRL	Nos.	8	5,491.00	43,928.00
19	Supplying and erecting M.S./CRCA cabinet for housing Floor Hydrant valve, hose pipe, hose reel and branch pipe (size 1000 mm x 736mm x 736 mm.) made from 16 SWG sheet and angle iron 25 mm. x 25 mm. x 4 mm. having front doors with viewing glass (8"x6") and locking arrangement with necessary fixing material such as rubber bidding etc. duly painted in post box red colour.	Nos.	4	16,660.00	66,640.00
20	Supplying and erecting 25 mm dia GM Air Release Cock with necessary GI coupling to be fitted on top of air vessel or on wet riser as per specification no. FF-FFA/ARV.	Nos.	1	884.00	884.00
21	Supplying and installing Fire Brigade Header (Siamese Connection) of 150 mm dia, supplying water to wet riser system as per specification no. FF-FFA/SMC	No.	1	12,169.00	12,169.00
22	Excavating soft Murum/Soil roadby chiseling for laying cables, pipes & clearing the site by removing debris & making the site good.	Cu. M .	10	300.00	3,000.00
23	Supplying and installing wall mounting swinging Hose reel drum fitted with 19 mm dia. 30m high pressure polypropylene (Polyhose) long fitted with necessary accessories complete as per specification No. FF-FFA/HV	Nos	4	7,023.00	28,092.00
24	Supplying, erecting, testing and commissioning the 2 Zones Microprocessor based conventional Fire Alarm Control Panel (FACP) with standard accessories complete as per specification No. FF-FAAS/FACP	Nos	1	17,929.00	17,929.00
25	Supplying, erecting, testing and commissioning manual call point (Pill box) with break glass push button and flip abort switch or agent release switch in metal enclosure complete as per specification no. FF-FAAS/MCP	Nos	1	585.00	585.00
26	Supply and erecting hooters with CRCA enclosure complete as per specification No.FF-FAAS/HTR	Nos	2	643.00	1,286.00
27	Supplying and erecting XLPE armoured cable 2 core 1.5 sq.mm. FRLS copper conductor complete erected on wall / ceiling as per specification No.CB-LT/CU	Mtrs	300	114.24	34,272.00
28	Supplying, erecting testing and commissioning beam smoke detector four wire single ended reflected type with 8 " receiver having digital display for easy alignment, adjustable sensitivity & heater kit for transmitter/receiver and reflector with necessary connections on suitable back box. The protection range of beam detector is 5 to 70 m.	Nos	2	58,386.00	1,16,772.00
STUDIO 2 TOTAL					8,41,631.00

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

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Studio 5					
Item No.	Description	Unit	Qty.	Rate	Amount
1	Supplying and erecting ABC powder type fire extinguisher as per IS : 15683 of 6 kg capacity with necessary clamp for erection on wall.	Nos	8	3,535.00	28,280.00
2	Supplying & erecting Carbon Dioxide (CO2) fire extinguisher of 4.5 kg. Capacity Cartridge type conf. To IS 15683 Complete erected with necessary clamp made from 50x6 mm. M. S. flat with nut & bolts grouted in wall complete.	Nos	2	9,943.00	19,886.00
3	Supplying, installing, testing and commissioning of Booster Pump suitable to water discharge of 450 LPM at average 35 m Head, driven by electric motor 415 volts, 3 phase 50 Hz, AC supply of 5.5 KW or of suitable KW.	Each	1	45,951.00	45,951.00
4	Supplying & erecting automatic control panel for 3 Ph, 415 volt, centrifugal pump set upto 7.5 - 10 HP consisting of Star Delta starter having relay range 13-22 Amp, S.P.P., Combined ammeter/voltmeter, phase indicating lamp enclosed in CRCA powder coated Vibration proof enclosure with IP 54 protection. Control Panel should offer single phasing, phase reversal, phase imbalance etc with auto manual on / off of pump.	No.	1	7,591.00	7,591.00
5	Supplying and erecting PVC armoured cable from motor to starter 3 core 6 sq mm Cu conductor with continuous 5.48 sq mm (12 SWG) G.I. earth wire complete erected with glands and lugs, on wall or laid in provided trench/ pipe as per specification no. CB-LT/CU	Mtr	50	318.00	15,900.00
6	Supplying and installing Pressure Gauge of 100 mm dia 0 - 7 Kg/cm2 fitted with 12/15 mm dia pad cock valve, and GI pipe, elbow etc. as per requirement in an approved manner as per specification no. FF-FFA/PG.	Nos.	1	810.00	810.00
7	Supplying and installing Danfoss make pressure switch with 12/15 mm dia isolation Valve, GI nipple, elbow etc. in an approved manner as per specification no. FF-FFA/PS	Nos.	1	1,853.00	1,853.00
8	Supplying and installing G.I. pipe above ground of C class ERW of size 150 mm dia with with necessary fittings as per specification no. FF-PP	Mtrs.	18	2,463.00	44,334.00
9	Supplying and installing G.I. pipe above ground of C class ERW of size 100 mm dia with with necessary fittings as per specification no. FF-PP	Mtrs.	154	1,640.00	2,52,560.00
10	Supplying and installing G.I. pipe above ground of C class ERW of size 80 mm dia with with necessary fittings as per specification no. FF-PP	Mtrs.	30	1,164.00	34,920.00
11	Supplying and installing double flange Non - Return Valve of size 100 mm dia as per specification FF-VL/NRV	Nos.	1	8,642.00	8,642.00
12	Supplying and installing double flange Non - Return Valve of size 150 mm dia as per specification FF-VL/NRV	Nos.	1	14,147.00	14,147.00
13	Supplying and installing cast iron double flange Butterfly Valve of size 100 mm dia as per specification no. FF-VL/BFV	Nos.	1	4,317.00	4,317.00
14	Supplying and installing cast iron double flange Butterfly Valve of size 150 mm dia as per specification no. FF-VL/BFV	Nos.	2	6,416.00	12,832.00
15	Supplying and installing 100 mm dia end line strainer for + ve suction as per specification no. FF-VL/ELS.	Nos.	1	6,670.00	6,670.00
16	Supplying and installing Stainless Steel single outlet hydrant valve fitted with necessary accessories complete as per specification No. FF-VL/HV	Nos.	6	6,090.00	36,540.00
17	Supplying Stainless Steel Branch Pipes of 63 mm dia. fitted with 20 mm dia detachable hexagonal nozzle as per specification no. FF-FFA/NZ	Nos.	6	2,028.00	12,168.00
18	Supplying Fire fighting RRL Hose pipe, 15 mtr in length fitted with necessary accessories complete as per specification no. FF-FFA/RRL	Nos.	12	5,491.00	65,892.00
19	Supplying and erecting M.S./CRCA cabinet for housing Floor Hydrant valve, hose pipe, hose reel and branch pipe (size 1000 mm x 736mm x 736 mm.) made from 16 SWG sheet and angle iron 25 mm. x 25 mm. x 4 mm. having front doors with viewing glass (8"x6") and locking arrangement with necessary fixing material such as rubber bidding etc. duly painted in post box red colour.	Nos.	6	16,660.00	99,960.00
20	Supplying and erecting 25 mm dia GM Air Release Cock with necessary GI coupling to be fitted on top of air vessel or on wet riser as per specification no. FF-FFA/ARV.	Nos.	1	884.00	884.00

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
21	Supplying and installing Fire Brigade Header (Siamese Connection) of 150 mm dia, supplying water to wet riser system as per specification no. FF-FFA/SMC	No.	1	12,169.00	12,169.00
22	Excavating soft Murum/Soil roadby chiseling for laying cables, pipes & clearing the site by removing debris & making the site good.	Cu. M	10	300.00	3,000.00
23	Supplying and installing wall mounting swinging Hose reel drum fitted with 19 mm dia. 30m high pressure polypropylene (Polyhose) long fitted with necessary accessories complete as per specification No. FF-FFA/HV	Nos	6	7,023.00	42,138.00
24	Supplying, erecting, testing and commissioning the 2 Zones Microprocessor based conventional Fire Alarm Control Panel (FACP) with standard accessories complete as per specification No. FF-FAAS/FACP	Nos	1	17,929.00	17,929.00
25	Supplying, erecting, testing and commissioning manual call point (Pill box) with break glass push button and flip abort switch or agent release switch in metal enclosure complete as per specification no. FF-FAAS/MCP	Nos	2	585.00	1,170.00
26	Supply and erecting hooters with CRCA enclosure complete as per specification No. FF-FAAS/HTR	Nos	4	643.00	2,572.00
27	Supplying and erecting XLPE armoured cable 2 core 1.5 sq.mm. FRLS copper conductor complete erected on wall / ceiling as per specification No. CB-LT/CU	Mtrs	600	114.24	68,544.00
28	Supplying, erecting testing and commissioning optical type smoke detector on suitable back box with necessary connections complete as per specification no. FF-FAS/SD	Nos	14	1,740.00	24,360.00
29	Supplying, erecting testing and commissioning beam smoke detector four wire single ended reflected type with 8 " receiver having digital display for easy alignment, adjustable sensitivity & heater kit for transmitter/receiver and reflector with necessary connections on suitable back box. The protection range of beam detector is 5 to 70 m.	Nos	2	58,386.00	1,16,772.00
STUDIO 5 TOTAL					10,02,791.00

Studio 7					
Item No.	Description	Unit	Qty.	Rate	Amount
1	Supplying and erecting ABC powder type fire extinguisher as per IS : 15683 of 6 kg capacity with necessary clamp for erection on wall.	Nos	4	3,535.00	14,140.00
2	Supplying & erecting Carbon Dioxide (CO2) fire extinguisher of 4.5 kg. Capacity Cartridge type conf. To IS 15683 Complete erected with necessary clamp made from 50x6 mm. M. S. flat with nut & bolts grouted in wall complete.	Nos	1	9,943.00	9,943.00
3	Supplying, installing, testing and commissioning of Booster Pump suitable to water discharge of 450 LPM at average 35 m Head, driven by electric motor 415 volts, 3 phase 50 Hz, AC supply of 5.5 KW or of suitable KW.	Each	1	45,951.00	45,951.00
4	Supplying & erecting automatic control panel for 3 Ph, 415 volt, centrifugal pump set upto 7.5 - 10 HP consisting of Star Delta starter having relay range 13-22 Amp, S.P.P., Combined ammeter/voltmeter, phase indicating lamp enclosed in CRCA powder coated Vibration proof encloser with IP 54 protection. Control Panel should offer single phasing, phase reversal, phase imbalance etc with auto manual on / off of pump.	No.	1	7,591.00	7,591.00
5	Supplying and erecting PVC armoured cable from motor to starter 3 core 6 sq mm Cu conductor with continuous 5.48 sq mm (12 SWG) G.I. earth wire complete erected with glands and lugs, on wall or laid in provided trench/ pipe as per specification no. CB-LT/CU	Mtr	50	318.00	15,900.00
6	Supplying and installing Pressure Gauge of 100 mm dia 0 - 7 Kg/cm2 fitted with 12/15 mm dia pad cock valve, and GI pipe, elbow etc. as per requirement in an approved manner as per specification no. FF-FFA/PG.	Nos.	1	810.00	810.00
7	Supplying and installing Danfoss make pressure switch with 12/15 mm dia isolation Valve, GI nipple, elbow etc. in an approved manner as per specification no. FF-FFA/PS	Nos.	1	1,853.00	1,853.00

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
8	Supplying and installing G.I. pipe above ground of C class ERW of size 150 mm dia with with necessary fittings as per specification no. FF-PP	Mtrs.	18	2,463.00	44,334.00
9	Supplying and installing G.I. pipe above ground of C class ERW of size 100 mm dia with with necessary fittings as per specification no. FF-PP	Mtrs.	180	1,640.00	2,95,200.00
10	Supplying and installing G.I. pipe above ground of C class ERW of size 80 mm dia with with necessary fittings as per specification no. FF-PP	Mtrs.	18	1,164.00	20,952.00
11	Supplying and installing double flange Non - Return Valve of size 100 mm dia as per specification FF-VL/NRV	Nos.	1	8,642.00	8,642.00
12	Supplying and installing double flange Non - Return Valve of size 150 mm dia as per specification FF-VL/NRV	Nos.	1	14,147.00	14,147.00
13	Supplying and installing cast iron double flange Butterfly Valve of size 100 mm dia as per specification no. FF-VL/BFV	Nos.	1	4,317.00	4,317.00
14	Supplying and installing cast iron double flange Butterfly Valve of size 150 mm dia as per specification no. FF-VL/BFV	Nos.	2	6,416.00	12,832.00
15	Supplying and installing 100 mm dia end line strainer for + ve suction as per specification no. FF-VL/ELS.	Nos.	1	6,670.00	6,670.00
16	Supplying and installing Stainless Steel single outlet hydrant valve fitted with necessary accessories complete as per specification No. FF-VL/HV	Nos.	4	6,090.00	24,360.00
17	Supplying Stainless Steel Branch Pipes of 63 mm dia. fitted with 20 mm dia detachable hexagonal nozzle as per specification no. FF-FFA/NZ	Nos.	4	2,028.00	8,112.00
18	Supplying Fire fighting RRL Hose pipe, 15 mtr in length fitted with necessary accessories complete as per specification no. FF-FFA/RRL	Nos.	8	5,491.00	43,928.00
19	Supplying and erecting M.S./CRCA cabinet for housing Floor Hydrant valve, hose pipe, hose reel and branch pipe (size 1000 mm x 736mm x 736 mm.) made from 16 SWG sheet and angle iron 25 mm. x 25 mm. x 4 mm. having front doors with viewing glass (8"x6") and locking arrangement with necessary fixing material such as rubber bidding etc. duly painted in post box red colour.	Nos.	4	16,660.00	66,640.00
20	Supplying and erecting 25 mm dia GM Air Release Cock with necessary GI coupling to be fitted on top of air vessel or on wet riser as per specification no. FF-FFA/ARV.	Nos.	1	884.00	884.00
21	Supplying and installing Fire Brigade Header (Siamese Connection) of 150 mm dia, supplying water to wet riser system as per specification no. FF-FFA/SMC	No.	1	12,169.00	12,169.00
22	Excavating soft Murum/Soil roadby chiseling for laying cables, pipes & clearing the site by removing debris & making the site good.	Cu. M	10	300.00	3,000.00
23	Supplying and installing wall mounting swinging Hose reel drum fitted with 19 mm dia. 30m high pressure polypropylene (Polyhose) long fitted with necessary accessories complete as per specification No. FF-FFA/HV	Nos	4	7,023.00	28,092.00
24	Supplying, erecting, testing and commissioning the 2 Zones Microprocessor based conventional Fire Alarm Control Panel (FACP) with standard accessories complete as per specification No. FF-FAAS/FACP	Nos	1	17,929.00	17,929.00
25	Supplying, erecting, testing and commissioning manual call point (Pill box) with break glass push button and flip abort switch or agent release switch in metal enclosure complete as per specification no. FF-FAAS/MCP	Nos	1	585.00	585.00
26	Supply and erecting hooters with CRCA enclosure complete as per specification No. FF-FAAS/HTR	Nos	2	643.00	1,286.00
27	Supplying and erecting XLPE armoured cable 2 core 1.5 sq.mm. FRLS copper conductor complete erected on wall / ceiling as per specification No. CB-LT/CU	Mtrs	600	114.24	68,544.00
28	Supplying, erecting testing and commissioning optical type smoke detector on suitable back box with necessary connections complete as per specification no. FF-FAS/SD	Nos	6	1,740.00	10,440.00

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
29	Supplying, erecting testing and commissioning beam smoke detector four wire single ended reflected type with 8 " receiver having digital display for easy alignment, adjustable sensitivity & heater kit for transmitter/receiver and reflector with necessary connections on suitable back box. The protection range of beam detector is 5 to 70 m.	Nos	2	58,386.00	1,16,772.00
STUDIO 7 TOTAL					9,06,023.00

Studio 16					
Item No.	Description	Unit	Qty.	Rate	Amount
1	Supplying and erecting ABC powder type fire extinguisher as per IS : 15683 of 6 kg capacity with necessary clamp for erection on wall.	Nos	6	3,535.00	21,210.00
2	Supplying & erecting Carbon Dioxide (CO2) fire extinguisher of 4.5 kg. Capacity Cartridge type conf. To IS 15683 Complete erected with necessary clamp made from 50x6 mm. M. S. flat with nut & bolts grouted in wall complete.	Nos	1	9,943.00	9,943.00
3	Supplying, installing, testing and commissioning of Booster Pump suitable to water discharge of 450 LPM at average 35 m Head, driven by electric motor 415 volts, 3 phase 50 Hz, AC supply of 5.5 KW or of suitable KW.	Each	1	45,951.00	45,951.00
4	Supplying & erecting automatic control panel for 3 Ph, 415 volt, centrifugal pump set upto 7.5 - 10 HP consisting of Star Delta starter having relay range 13-22 Amp, S.P.P., Combined ammeter/voltmeter, phase indicating lamp enclosed in CRCA powder coated Vibration proof encloser with IP 54 protection. Control Panel should offer single phasing, phase reversal, phase imbalance etc with auto manual on / off of pump.	No.	1	7,591.00	7,591.00
5	Supplying and erecting PVC armoured cable from motor to starter 3 core 6 sq mm Cu conductor with continuous 5.48 sq mm (12 SWG) G.I. earth wire complete erected with glands and lugs, on wall or laid in provided trench/ pipe as per specification no. CB-LT/CU	Mtr	50	318.00	15,900.00
6	Supplying and installing Pressure Gauge of 100 mm dia 0 - 7 Kg/cm2 fitted with 12/15 mm dia pad cock valve, and GI pipe, elbow etc. as per requirement in an approved manner as per specification no. FF-FFA/PG.	Nos.	1	810.00	810.00
7	Supplying and installing Danfoss make pressure switch with 12/15 mm dia isolation Valve, GI nipple, elbow etc. in an approved manner as per specification no. FF-FFA/PS	Nos.	1	1,853.00	1,853.00
8	Supplying and installing G.I. pipe above ground of C class ERW of size 150 mm dia with with necessary fittings as per specification no. FF-PP	Mtrs.	18	2,463.00	44,334.00
9	Supplying and installing G.I. pipe above ground of C class ERW of size 100 mm dia with with necessary fittings as per specification no. FF-PP	Mtrs.	210	1,640.00	3,44,400.00
10	Supplying and installing G.I. pipe above ground of C class ERW of size 80 mm dia with with necessary fittings as per specification no. FF-PP	Mtrs.	18	1,164.00	20,952.00
11	Supplying and installing double flange Non - Return Valve of size 100 mm dia as per specification FF-VL/NRV	Nos.	1	8,642.00	8,642.00
12	Supplying and installing double flange Non - Return Valve of size 150 mm dia as per specification FF-VL/NRV	Nos.	1	14,147.00	14,147.00
13	Supplying and installing cast iron double flange Butterfly Valve of size 100 mm dia as per specification no. FF-VL/BFV	Nos.	1	4,317.00	4,317.00
14	Supplying and installing cast iron double flange Butterfly Valve of size 150 mm dia as per specification no. FF-VL/BFV	Nos.	2	6,416.00	12,832.00
15	Supplying and installing 100 mm dia end line strainer for + ve suction as per specification no. FF-VL/ELS.	Nos.	1	6,670.00	6,670.00
16	Supplying and installing Stainless Steel single outlet hydrant valve fitted with necessary accessories complete as per specification No. FF-VL/HV	Nos.	4	6,090.00	24,360.00
17	Supplying Stainless Steel Branch Pipes of 63 mm dia. fitted with 20 mm dia detachable hexagonal nozzle as per specification no. FF-FFA/NZ	Nos.	4	2,028.00	8,112.00
18	Supplying Fire fighting RRL Hose pipe, 15 mtr in length fitted with necessary accessories complete as per specification no. FF-FFA/RRL	Nos.	8	5,491.00	43,928.00

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
19	Supplying and erecting M.S./CRCA cabinet for housing Floor Hydrant valve, hose pipe, hose reel and branch pipe (size 1000 mm x 736mm x 736 mm.) made from 16 SWG sheet and angle iron 25 mm. x 25 mm. x 4 mm. having front doors with viewing glass (8"x6") and locking arrangement with necessary fixing material such as rubber bidding etc. duly painted in post box red colour.	Nos.	4	16,660.00	66,640.00
20	Supplying and erecting 25 mm dia GM Air Release Cock with necessary GI coupling to be fitted on top of air vessel or on wet riser as per specification no. FF-FFA/ARV.	Nos.	1	884.00	884.00
21	Supplying and installing Fire Brigade Header (Siamese Connection) of 150 mm dia, supplying water to wet riser system as per specification no. FF-FFA/SMC	No.	1	12,169.00	12,169.00
22	Excavating soft Murum/Soil roadby chiseling for laying cables, pipes & clearing the site by removing debris & making the site good.	Cu. M	10	300.00	3,000.00
23	Supplying and installing wall mounting swinging Hose reel drum fitted with 19 mm dia. 30m high pressure polypropylene (Polyhose) long fitted with necessary accessories complete as per specification No. FF-FFA/HV	Nos	4	7,023.00	28,092.00
24	Supplying, erecting, testing and commissioning the 2 Zones Microprocessor based conventional Fire Alarm Control Panel (FACP) with standard accessories complete as per specification No. FF-FAAS/FACP	Nos	1	17,929.00	17,929.00
25	Supplying, erecting, testing and commissioning manual call point (Pill box) with break glass push button and flip abort switch or agent release switch in metal enclosure complete as per specification no. FF-FAAS/MCP	Nos	1	585.00	585.00
26	Supply and erecting hooters with CRCA enclosure complete as per specification No.FF-FAAS/HTR	Nos	2	643.00	1,286.00
27	Supplying and erecting XLPE armoured cable 2 core 1.5 sq.mm. FRLS copper conductor complete erected on wall / ceiling as per specification No.CB-LT/CU	Mtrs	600	114.24	68,544.00
28	Supplying, erecting testing and commissioning optical type smoke detector on suitable back box with necessary connections complete as per specification no. FF-FAS/SD	Nos	10	1,740.00	17,400.00
29	Supplying, erecting testing and commissioning beam smoke detector four wire single ended reflected type with 8 " receiver having digital display for easy alignment, adjustable sensitivity & heater kit for transmitter/receiver and reflector with necessary connections on suitable back box. The protection range of beam detector is 5 to 70 m.	Nos	2	58,386.00	1,16,772.00
STUDIO 16 TOTAL					9,69,253.00

Hospital Building					
Item No.	Description	Unit	Qty.	Rate	Amount
1	Supplying and erecting ABC powder type fire extinguisher as per IS : 15683 of 6 kg capacity with necessary clamp for erection on wall.	Nos	10	3,535.00	35,350.00
2	Supplying & erecting Carbon Dioxide (CO2) fire extinguisher of 4.5 kg. Capacity Cartridge type conf. To IS 15683 Complete erected with necessary clamp made from 50x6 mm. M. S. flat with nut & bolts grouted in wall complete.	Nos	2	9,943.00	19,886.00
3	Supplying, installing, testing and commissioning of Booster Pump suitable to water discharge of 450 LPM at average 35 m Head, driven by electric motor 415 volts, 3 phase 50 Hz, AC supply of 5.5 KW or of suitable KW.	Each	1	45,951.00	45,951.00
4	Supplying & erecting automatic control panel for 3 Ph, 415 volt, centrifugal pump set upto 7.5 - 10 HP consisting of Star Delta starter having relay range 13-22 Amp, S.P.P., Combined ammeter/ voltmeter, phase indicating lamp enclosed in CRCA powder coated Vibration proof encloser with IP 54 protection. Control Panel should offer single phasing, phase reversal, phase inbalance etc with auto manual on / off of pump.	No.	1	7,591.00	7,591.00
5	Supplying and erecting PVC armoured cable from motor to starter 3 core 6 sq mm Cu conductor with continuous 5.48 sq mm (12 SWG) G.I. earth wire complete erected with glands and lugs, on wall or laid in provided trench/ pipe as per specification no. CB-LT/CU	Mtr	50	318.00	15,900.00

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
6	Supplying and installing Pressure Gauge of 100 mm dia 0 - 7 Kg/cm2 fitted with 12/15 mm dia pad cock valve, and GI pipe, elbow etc. as per requirement in an approved manner as per specification no. FF-FFA/PG.	Nos.	1	810.00	810.00
7	Supplying and installing Danfoss make pressure switch with 12/15 mm dia isolation Valve, GI nipple, elbow etc. in an approved manner as per specification no. FF-FFA/PS	Nos.	1	1,853.00	1,853.00
8	Supplying and installing G.I. pipe above ground of C class ERW of size 150 mm dia with with necessary fittings as per specification no. FF-PP	Mtrs.	36	2,463.00	88,668.00
9	Supplying and installing G.I. pipe above ground of C class ERW of size 100 mm dia with with necessary fittings as per specification no. FF-PP	Mtrs.	42	1,640.00	68,880.00
10	Supplying and installing G.I. pipe above ground of C class ERW of size 80 mm dia with with necessary fittings as per specification no. FF-PP	Mtrs.	12	1,164.00	13,968.00
11	Supplying and installing double flange Non - Return Valve of size 100 mm dia as per specification FF-VL/NRV	Nos.	1	8,642.00	8,642.00
12	Supplying and installing double flange Non - Return Valve of size 150 mm dia as per specification FF-VL/NRV	Nos.	1	14,147.00	14,147.00
13	Supplying and installing cast iron double flange Butterfly Valve of size 100 mm dia as per specification no. FF-VL/BFV	Nos.	1	4,317.00	4,317.00
14	Supplying and installing cast iron double flange Butterfly Valve of size 150 mm dia as per specification no. FF-VL/BFV	Nos.	2	6,416.00	12,832.00
15	Supplying and installing 100 mm dia end line strainer for + ve suction as per specification no. FF-VL/ELS.	Nos.	1	6,670.00	6,670.00
16	Supplying and installing Stainless Steel single outlet hydrant valve fitted with necessary accessories complete as per specification No. FF-VL/HV	Nos.	4	6,090.00	24,360.00
17	Supplying Stainless Steel Branch Pipes of 63 mm dia. fitted with 20 mm dia detachable hexagonal nozzle as per specification no. FF-FFA/NZ	Nos.	4	2,028.00	8,112.00
18	Supplying Fire fighting RRL Hose pipe, 15 mtr in length fitted with necessary accessories complete as per specification no. FF-FFA/RRL	Nos.	8	5,491.00	43,928.00
19	Supplying and erecting M.S./CRCA cabinet for housing Floor Hydrant valve, hose pipe, hose reel and branch pipe (size 1000 mm x 736mm x 736 mm.) made from 16 SWG sheet and angle iron 25 mm. x 25 mm. x 4 mm. having front doors with viewing glass (8"x6") and locking arrangement with necessary fixing material such as rubber bidding etc. duly painted in post box red colour.	Nos.	4	16,660.00	66,640.00
20	Supplying and erecting 25 mm dia GM Air Release Cock with necessary GI coupling to be fitted on top of air vessel or on wet riser as per specification no. FF-FFA/ARV.	Nos.	1	884.00	884.00
21	Supplying and installing Fire Brigade Header (Siamese Connection) of 150 mm dia, supplying water to wet riser system as per specification no. FF-FFA/SMC	No.	1	12,169.00	12,169.00
22	Excavating soft Murum/Soil road by chiseling for laying cables, pipes & clearing the site by removing debris & making the site good.	Cu. M	10	300.00	3,000.00
23	Supplying and installing wall mounting swinging Hose reel drum fitted with 19 mm dia. 30m high pressure polypropylene (Polyhose) long fitted with necessary accessories complete as per specification No. FF-FFA/HV	Nos	4	7,023.00	28,092.00
24	Supplying, erecting, testing and commissioning the 8 Zones Microprocessor based conventional Fire Alarm Control Panel (FACP) with standard accessories complete as per specification No. FF-FAAS/FACP	Nos	1	44,822.50	44,822.50
25	Supplying, erecting testing and commissioning Manual Call Point with break glass, push button (Resettable Type) in metal enclosure complete as per specification no. FF-FAAS/MCP	Nos	4	585.00	2,340.00
26	Supply and erecting hooters with CRCA enclosure complete as per specification No. FF-FAAS/HTR	Nos	8	643.00	5,144.00
27	Supplying and erecting XLPE armoured cable 2 core 1.5 sq.mm. FRLS copper conductor complete erected on wall / ceiling as per specification No. CB-LT/CU	Mtrs	1600	114.24	1,82,784.00
28	Supplying, erecting testing and commissioning optical type smoke detector on suitable back box with necessary connections complete as per specification no. FF-FAS/SD	Nos	96	1,740.00	1,67,040.00
HOSPITAL BUILDING TOTAL					9,34,780.50

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

ESTIMATE

ESTIMATE FOR HVAC WORKS OF STUDIO 1, 2, 5, 7, 16 & HOSPITAL BUILDING AT DADASAHEB PHALKE
CHITRANAGARI, GOREGAON (EAST), MUMBAI - 400 065

ABSTRACT SHEET

Item No.	Description	Unit	Qty.	Rate	Amount
Studio 1 & 2					
CHILLER ACCESSORIES					
1	Supply, Installation, Testing & Commissioning of the following				
a	Pressurised closed expansion tank of M.S construction with interchangeable EPDM/BUTYL bladder working on nitrogen pressure with following accessories Pressure gauge, Safety valve, conforming as per specification and of below capacity. The Pressure rating shall be as per system design pressure. Capacity: 500 Litres.	Nos	RO	1,75,000.00	-
b	Pressurisation pumping skid, comprising of two multistage high pressure pumps (1 working +1 standby) with control panel with soft starters, valves, flow meter and other accessories as described in detailed specifications. The pumps shall be able to deliver at least 2 CMH flow at suitable pressure head. It shall be suitable for outdoor installation. The controller shall be suitable for IP 55 and BMS compatible for remote on/off, alarm. Capacity - 2 CMH @25 m	Nos	RO	3,75,000.00	-
c	Combined Air and Dirt Separator of M.S construction as per specifications on the return water line located at the pump suction or a suitable location as suggested. The separator should be complete with high capacity air vent, service valve, water inlet, flanges, drain valve etc. of below sizes:- Connection Size - 300 mm	Nos	RO	1,75,000.00	-
2	INDOOR UNIT				
	Floor - mounted AHU				
	S/I/T/C of floor mounted AHU with Double Skin Polyurethane foam (PU) insulation panel with 0.8 mm high strength powder coated steel as external skin and 0.8 mm galvanized steel (GI) as internal skin. The thermal break profile shall be provided with 50mm PU foam insulation thickness with a density of 48 kg/m ³ , which provides an overall thermal conductivity, k = 0.017 W/(m.K). Unit shall be equipped with marine light & limit switch. Coil shall be designed at 8 °C inlet water temperature and outlet water temperature at 13°C. Air-handling unit shall consist of DIDW forward/Backward curve, Energy-efficient AMCA certified fans centrifugal fan mounted on a common solid shaft, which shall be driven by a motor through pulley and belts arrangement. Motor shall be Belt drive package, VFD duty compatible IE-3 TEFC squirrel cage induction motor suitable for operation on 415±10% Volts, 50 Hz, 3 Phase AC power supply. Valve package shall include - 1. Butterfly valve - 2 Nos. 2. Y-strainer - 1 Nos. 3. PICV valve - 1 Nos. 4. Pressure gauge - 2 Nos. 5. Temperature gauge - 2 Nos. 6. Air vent - 1 7. Drain valve - 1 Note:- Insulation shall be done on valves same as chilled water piping insulation. AHU Shall be supply as per tender specification & below mentioned capacities.				

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
	The pre filters shall be MERV 8 & fine will be MERV 13 - 90% efficiency 10 micron washable HDPE pre-filters 50 mm thick installed such that filters shall be easily accessible, fire retardant double canvass connections, volume control damper at AHU outlet, access doors with limit switch, maintenance lamp inside the fan section, SS insulated base tray with liberal drain connections on either side, complete as per specifications shall be included.				
	AHU's should be suitable for Floor mounted as Specified . Fan outlet velocity not to exceed 1800 fpm. Coil face velocity not to exceed 500 fpm. AHU Coil shall be designed for 54 F ADP.				
	The cost shall include BMS Compatible Starter & Control panel of 2mm thick CRCA sheet with OLP, SPP, ON/OFF push buttons with ON indications, A-M switch for remote operation, A-M Switch for switching to bypass starting instead of VFD starting, 3nos. NO-NC (non polarized) contacts for tripping on signal from fire dampers / fire alarm panel, remote status feedback. The AHU Panel shall be provisioned to house the AHU VFD and a standalone Controller & shall have a bypass arrangement for the AHU to run on normal starter incase of VFD failure. AHUs shall be controlled via VFD and Standalone Controller.				
	Cabling: Power cabling of copper armoured cable from panel to motor with double compression gland & Copper armoured Control cabling with hookup to its controller.				
	All floor mounted AHUs shall be delivered at site in CKD condition and assembled in place by skilled workmen of AHU supplier.(NOTE : CONTRACTOR SHALL VERIFY STATIC PRESSURE FROM CONSTRUCTION DRAWINGS BEFORE ORDERING.)				
	AHU shall be provided with test ports with plugs to facilitate testing & measuring of air quality before & after coil & after fan section.				
	"Mixing Box Section :- Mixing Box Shall have fresh air , return air damper. Fresh air spigot shall be suitable for 700 FPM velocity , return air spigot shall be suitable for 1200 FPM velocity. The damper shall be low leakage areofoil design and in aluminium construction Filter Section :- Filter (EU-4) having efficiency of 90 % down to 10 µ & 99% down to 5 microns. This section shall be suitable to installed above said filter. Fan Section :- Fan section shall be comprise of backward curve inclined DIDW centrifugal Fan. Fan & Fan motor & drive set package shall have common base frame with cushy foot mountings or spring isolators				
	Studio - 1 - AHU - 1 - 45500 CFM / 112 TR / 50 mmwg ESP	Nos	1	22,75,000.00	22,75,000.00
	Studio - 2 - AHU - 2 & 3 - 45500 CFM / 106 TR / 50 mmwg ESP	Nos	2	22,75,000.00	45,50,000.00
3	ELECTRICAL CABLING				
	Cabling :				
3.1	Power cabling between Starter panel to AHU as per the approved drawings (Armored Cable - sizes should be as per Unit OEM requirement)	RO		550.00	-
3.2	Control cabling between temperature transmitter and PICV valve & VFD.	RO		150.00	-
3.3	VFD :				
	SITC of Variable Frequency Drive with IP20 protection. The VFD shall be of the type suitable for operation on a 3 phase, 380 - 480 VAC, 50 HZ input power. numbers of VFD to be selected as per numbers of fan in single unit & Fan KW rating.	Nos	0	1,20,000.00	0.00

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
4	SHEET METAL WORKS:				
	Supplying, erecting, testing & commissioning GI sheet having zinc coating of 275 microns with galvanization process compliance to IS 2629:1985 to be used for fabrication of boxes panel boards etc. including cutting, bending, drilling, welding, riveting etc. and painting with one coat of red lead paint and 2 coats of enamel paint as per specification no. CP/SH/CR				
4.1	Ducting (22 G)	SQ.MT.	2645	1,503.00	39,75,435.00
4.2	Ducting (24 G)	SQ.MT.	515	1,482.00	7,63,230.00
4.3	Flexible Canvas Connector :At all connections between ducts & fans/ Ducted Units/TFA; fire-retardant, lint-free double canvass/rexin connections of heavy gauge shall be provided. One set of canvas connection include required quantity of canvas for one evaporator indoor unit / Exhaust Or Fresh Air Fan.	EACH	10	2,952.00	29,520.00
	Notes:				
	The ducting support should be as per tender specification and additional supports to be provided as per consultants instructions.				
	Muslin cloth cover for all air outlets during construction.				
	Pressure testing of complete duct work as per DW/ SMACNA standard.				
	Silicon sealant shall be applied for longitudinal & transverse joints as per specification.				
5	THERMAL & ACOUSTIC INSULATION:				
	Providing and applying of acoustic insulation for air ducts with 25mm thick,48 kg/cu.m fiber glass faced with RP tissue and covered with 26 SWG perforated aluminium sheets complete.	Sqmtr	820	1,191.00	9,76,024.50
6	Providing adhesive thermal insulation for supply return air duct with 19mm nitrile rubber insulation having R-value as per the prevailing provisions in ECBC- 2017.	Sqmtr	2410	1,048.00	25,25,889.60
	Note:				
	Insulation work to be coordinated with other agencies and repair to be included by contractor as per site requirement.				
	Vendors to take care of the installation, if any damages takes place the vendor to repair or replace and hand over to clients in good and acceptable condition.				
	GRILL				
7	Supply, Installation and Balancing of powder coated Extruded aluminium Supply air & Return air grill. Sizes & technical details shall be in accordance with approved shop drawings and specifications.	RMT	15	1,364.00	20,460.00
	COLLAR DAMPER				
	Supplying and installing of collar damper of galvanised iron material of upto 120microns for anti corrosive resistance for supply air grill of suitable size	Sqmtr	3	6,948.00	20,844.00
	Jet Diffuser				
8	Supply, Installation and Balancing of powder coated Extruded aluminium Jet Diffuser. Sizes & technical details shall be in accordance with approved shop drawings and specifications.				
	400 Dia	Nos	90	5,000.00	4,50,000.00
	SOUND ATTENUATOR				
9	The duct sound attenuator shall be factory fabricated with 1.25 mm thick GS sheets or one gauge higher than the standard duct. The flanges shall be of angle iron type. The insulation material used shall be of fiberglass having a density of 25 kg/cum. Only slabs shall be used and loose pieces shall not be used. The louvers in the sound attenuator shall be fabricated using 0.8 mm thick perforated aluminum sheet having	SQ.M	10	5,500.00	55,000.00

Item No.	Description	Unit	Qty.	Rate	Amount
	a thickness as specified in the drawing and filled with fiber glass. The fiberglass shall be covered with RP tissue on all the sides. The internal duct surface shall also be lined with 25 mm thick fiber glass and finished with perforated aluminium sheet having a thickness of 0.8 mm. The louvers shall be secured properly with the specified spacing using a proper fixing arrangement. Provide reinforcement members to prevent the perforated aluminium sheet from sagging. Sound attenuator shall offer minimum resistance to airflow. The attenuator are to be inspected at the factory by the consultants/owners if required before dispatch to site. Provide selection and test certificates wherever required.				
	COWL PIECE WITH BIRD SCREEN				
10	Supplying & erecting 22 SWG G.I sheet metal cawl sector shaped with 25 x 25 x 3 (mm) angle iron frame, metal mesh to avoid birds entry with necessary material, suitable for fresh air fan of 450 mm as per specification no FG-FAS/MSC	EACH	0	1,475.00	0.00
11	VOLUME CONTROL DAMPER				
	Supply, installation, testing and commissioning of manually operated, opposed blade, duct mounted, flanged volume control dampers of required sizes in GI construction complete with operating mechanism, mounting arrangement, rubber refrigerant kits etc. complete.	SQ.M	15	6,550.00	98,250.00
12	Fire Damper				
	The Fire dampers constructed with the outer shell of 1.6mm thick galvanized steel frame and the blade/Leaf with 1.6mm thick GSS. And with necessary flanges for connection as per specifications.				
	With fusible link spring mechanism, the damper shall be held open by a replaceable fusible link rated at 74deg C. When the fusible link detached due to fire, the damper shall get closed tightly by the spring mechanism.				
	Fire Damper with Fusible link and other details as mentioned above.	SQ.M	17	6,531.00	1,11,027.00
13	PIPING				
	Supplying, laying/fixing testing & commissioning of following nominal size of chilled water piping inside the building (with necessary clamps, vibration isolators and fitting but excluding valve, strainer , guage etc.) duly insulated with following closed cell elastomeric nitrile rubber of minimum 45kg / cu.m density, thermal conductivity 0.037 W/MK or better at 20 deg mean temperature class O insulation applied by suitable adhesive complete including repairing of damage to building etc.as per specification and as required complete in all respect.				
	Note:- the pipe of size 150mm & and below shall be M.S. 'C' class as per IS : 1239 and pipe size above 150mm shall be welded black steel pipe heavy class as per IS 3589, from minimum 6.35mm thick ms sheet for pipe of 350 mm dia. And from minimum 7mm thick MS Sheet for pipe of 400mm dia and above.				
13.1	200 Dia.(32mm thick insulation)	Rmt	60	5,532.00	3,31,920.00
13.2	150 Dia. (32mm thick insulation)	Rmt	45	4,278.00	1,92,510.00
13.3	125 Dia.(32mm thick insulation)	Rmt	15	3,742.00	56,130.00
14	DRAIN PIPING				
	Supply, installation, testing and commissioning of schedule 40 drain pipe with 6 Kg/m3 of pressure CPVC pipe to drain condensate water from indoor units, duly insulated with 13 mm thick Nitrile rubber sleeves complete with Tees, Bends, couplings, U trap, supporting accessories etc., as per IS 15778:2007, approved drawings & specifications				

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
14.1	25mm dia	RMT	0	210.00	0.00
14.2	32mm dia	RMT	30	311.00	9,330.00
14.3	40mm dia	RMT	15	509.00	7,635.00
14.4	50mm dia	RMT	0	743.00	0.00
	NOTES FOR PIPING:				
	Cover all open pipe ends with muslin cloth during construction				
	Unit rates for all indicated sizes of pipes & valves shall be furnished.				
	Cleaning/Painting of pipe before insulation shall be included in piping cost				
15	Supply installation & erection of supports Required pipe of MS material.	Ton	3	1,95,000.00	5,85,000.00
	VALVE & FITTINGS				
16	Supply, Installation, testing & commissioning of cast iron body Butterfly valves, PN 16 rating with matching flanges.				
16.1	300 mm dia	Nos	0	24,656.00	0.00
16.2	150 mm dia	Nos	5	8,333.00	41,665.00
16.3	125 mm dia	Nos	5	7,619.00	38,095.00
16.4	100 mm dia	Nos	0	6,640.00	0.00
16.5	80 mm dia	Nos	0	4,846.00	0.00
16.6	65 mm dia	Nos	0	4,530.00	0.00
16.7	50 mm dia	Nos	0	4,129.00	0.00
16.8	40 mm dia	Nos	0	3,501.00	0.00
17	Supply, installation, testing & commissioning of Brass/Carbon steel body Ball valve, The ball and the shaft shall be of stainless steel. The seat shall be of PTFE. The valve shall be complete with socket weld ends and with PN 16 rating.				
17.1	32 mm dia	Nos	5	4,719.00	23,595.00
17.2	25 mm dia	Nos	3	4,719.00	14,157.00
18	Supply, installation, testing & commissioning of MS Y Strainers, PN 16 rating with matching flanges.				
18.1	150 mm dia	Nos	3	28,033.00	84,099.00
19	Supply & Installation of Single arch expansion joints (Rubber Bellows)	Nos	10	9,600.00	96,000.00
20	Supply, Installation, testing & commissioning of flow sensors.	Nos	5	12,600.00	63,000.00
21	Supply, Installation, testing & commissioning of Temperature sensors and transmitter	Nos	5	15,000.00	75,000.00
22	Supply, installation, testing & commissioning of 150mm dia dial type pressure gauges with liquid filled and SS syphon & ball valve. Range: (0-16 kg/cm2)	Nos	10	2,500.00	25,000.00
23	Supply, installation, testing & commissioning of 150 mm dia dial type temperature gauges with liquid filled and Copper thermowell, 0-50 deg C	Nos	10	2,500.00	25,000.00
24	Supply, installation, testing & commissioning of Auto air vents with ball valve having brass body and Nylon float, PN 16.				
24.1	25 mm dia	Nos	3	2,200.00	6,600.00
25	Supply, installation, testing & commissioning of test points	Nos	5	9,500.00	47,500.00
26	Supply, installation, testing & commissioning of NRV Valve connections with control rods & matching flanges, PN 16.				
26.1	150mm dia	Nos	3	9,209.00	27,627.00
27	Supply, installation, testing & commissioning of Manual Balancing Valve connections with control rods & matching flanges, PN 16				
27.1	150 mm dia	Nos	3	1,61,646.00	4,84,938.00
28	Supply, Installation, Testing, Commissioning of Aluminium cladding with 22 gauge. (Thickness must be as per technical specifications)				
28.1	200 Dia	Rmt	40	1,500.00	60,000.00
28.2	150 Dia	Rmt	30	1,250.00	37,500.00
28.3	100 Dia	Rmt	30	1,150.00	34,500.00
STUDIO 1 & 2 TOTAL					1,82,17,481.10

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
Studio 5 & 7					
CHILLER ACCESSORIES					
1	INDOOR UNIT				
	Floor - mounted AHU				
	S/I/T/C of floor mounted AHU with Double Skin Polyurethane foam (PU) insulation panel with 0.8 mm high strength powder coated steel as external skin and 0.8 mm galvanized steel (GI) as internal skin. The thermal break profile shall be provided with 50mm PU foam insulation thickness with a density of 48 kg/m³, which provides an overall thermal conductivity, k = 0.017 W/(m•K). Unit shall be equipped with marine light & limit switch. Coil shall be designed at 8 °C inlet water temperature and outlet water temperature at 13°C. Air-handling unit shall consist of DIDW forward/Backward curve, Energy-efficient AMCA certified fans centrifugal fan mounted on a common solid shaft, which shall be driven by a motor through pulley and belts arrangement. Motor shall be Belt drive package, VFD duty compatible IE-3 TEFC squirrel cage induction motor suitable for operation on 415±10% Volts, 50 Hz, 3 Phase AC power supply. Valve package shall include - 1. Butterfly valve - 2 Nos. 2. Y-strainer - 1 Nos. 3. PICV valve - 1 Nos. 4. Pressure gauge - 2 Nos. 5. Temperature gauge - 2 Nos. 6. Air vent - 1 7. Drain valve - 1 Note:- Insulation shall be done on valves same as chilled water piping insulation. AHU Shall be supply as per tender specification & below mentioned capacities.				
	The pre filters shall be MERV 8 & fine will be MERV 13 - 90% efficiency 10 micron washable HDPE pre-filters 50 mm thick installed such that filters shall be easily accessible, fire retardant double canvass connections, volume control damper at AHU outlet, access doors with limit switch, maintenance lamp inside the fan section, SS insulated base tray with liberal drain connections on either side, complete as per specifications shall be included.				
	AHU's should be suitable for Floor mounted as Specified . Fan outlet velocity not to exceed 1800 fpm. Coil face velocity not to exceed 500 fpm. AHU Coil shall be designed for 54 F ADP.				
	The cost shall include BMS Compatible Starter & Control panel of 2mm thick CRCA sheet with OLP, SPP, ON/OFF push buttons with ON indications, A-M switch for remote operation, A-M Switch for switching to bypass starting instead of VFD starting, 3nos. NO-NC (non polarized) contacts for tripping on signal from fire dampers / fire alarm panel, remote status feedback. The AHU Panel shall be provisioned to house the AHU VFD and a standalone Controller & shall have a bypass arrangement for the AHU to run on normal starter incase of VFD failure. AHUs shall be controlled via VFD and Standalone Controller.				
	Cabling: Power cabling of copper armoured cable from panel to motor with double compression gland & Copper armoured Control cabling with hookup to its controller.				
	All floor mounted AHUs shall be delivered at site in CKD condition and assembled in place by skilled workmen of AHU supplier. (NOTE : CONTRACTOR SHALL VERIFY STATIC PRESSURE FROM CONSTRUCTION DRAWINGS BEFORE ORDERING.)				

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DEPUTY ENGINEER (CIVIL)

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Item No.	Description	Unit	Qty.	Rate	Amount
	AHU shall be provided with test ports with plugs to facilitate testing & measuring of air quality before & after coil & after fan section.				
	"Mixing Box Section :- Mixing Box Shall have fresh air , return air damper. Fresh air spigot shall be suitable for 700 FPM velocity , return air spigot shall be suitable for 1200 FPM velocity. The damper shall be low leakage areofoil design and in aluminium construction Filter Section :- Filter (EU-4) having efficiency of 90 % down to 10 µ & 99% down to 5 microns. This section shall be suitable to installed above said filter. Fan Section :- Fan section shall be comprise of backward curve inclined DIDW centrifugal Fan. Fan & Fan motor & drive set package shall have common base frame with cushy foot mountings or spring isolators				
	Studio - 7 - AHU - 1 & 2 - 45000 CFM / 113 TR / 50 mmwg ESP	Nos	2	22,50,000.00	45,00,000.00
2	ELECTRICAL CABLING				
	Cabling :				
2.1	Power cabling between Starter panel to AHU as per the approved drawings (Armored Cable - sizes should be as per Unit OEM requirement)	RO		550.00	0.00
2.2	Control cabling between temperature transmitter and PICV valve & VFD.	RO		150.00	0.00
2.3	VFD :				
	SITC of Variable Frequency Drive with IP20 protection. The VFD shall be of the type suitable for operation on a 3 phase, 380 - 480 VAC, 50 HZ input power. numbers of VFD to be selected as per numbers of fan in single unit & Fan KW rating.	Nos	4	□ 1,20,000.00	□ 4,80,000.00
3	SHEET METAL WORKS:				
3.1	Supplying, erecting, testing & commisioning GI sheet 0.8 mm (22 SWG) having zinc coating of 275 microns with galvanization process compliance to IS 2629:1985 to be used for fabrication of boxes panel boards etc. including cutting, bending, drilling, welding, riveting etc. and painting with one coat of red lead paint and 2 coats of enamel paint as per specification no. CP/SH/CR				
3.2	Ducting (20 G)	SQ.MT.	825	2,079.00	17,15,175.00
3.3	Ducting (22 G)	SQ.MT.	1055	1,503.00	15,85,665.00
	Ducting (24 G)	SQ.MT.	125	1,482.00	1,85,250.00
4	Flexible Canvas Connector :At all connections between ducts & fans/ Ducted Units/TFA; fire-retardant, lint-free double canvass/rexin connections of heavy gauge shall be provided. One set of canvas connection include required quantity of canvas for one evaporator indoor unit / Exhaust Or Fresh Air Fan.	EACH	4	2,952.00	11,808.00
	Notes:				
	The ducting support should be as per tender specification and additional supports to be provided as per consultants instructions.				
	Muslin cloth cover for all air outlets during construction.				
	Pressure testing of complete duct work as per DW/ SMACNA standard.				
	Silicon sealant shall be applied for longitudinal & transverse joints as per specification.				
5	THERMAL & ACOUSTIC INSULATION:				
	Providing and applying of acoustic insulation for air ducts with 25mm thick,48 kg/cu.m fiber glass faced with RP tissue and covered with 26 SWG perforated aluminium sheets complete.	Sqmtr	130	1,191.00	1,54,830.00
6	Providing adhesive thermal insulation for supply return air duct with 19mm nitrile rubber insulation having R-value as per the prevailing provisions in ECBC- 2017.	Sqmtr	1950	1,048.00	20,43,600.00

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
	Note:				
	Insulation work to be coordinated with other agencies and repair to be included by contractor as per site requirement.				
	Vendors to take care of the installation, if any damages takes place the vendor to repair or replace and hand over to clients in good and acceptable condition.				
	GRILL				
7	Supply, Installation and Balancing of powder coated Extruded aluminium Supply air & Return air grill. Sizes & technical details shall be in accordance with approved shop drawings and specifications. Supply air shall be provide with collar damper.	RMT	30	1,364.00	40,920.00
	COLLAR DAMPER				
	Supplying and installing of collar damper of galvanised iron material of upto 120microns for anti corrosive resistance for supply air grill of suitable size	Sqmtr	6	6,948.00	41,688.00
	JET DIFFUSER				
8	Supply, Installation and Balancing of powder coated Extruded aluminium Jet Diffuser. Sizes & technical details shall be in accordance with approved shop drawings and specifications.				
	400Dia	Nos	140	5,000.00	7,00,000.00
	SOUND ATTENUATOR				
9	The duct sound attenuator shall be factory fabricated with 1.25 mm thick GS sheets or one gauge higher than the standard duct. The flanges shall be of angle iron type. The insulation material used shall be of fiberglass having a density of 25 kg/cum. Only slabs shall be used and loose pieces shall not be used. The louvers in the sound attenuator shall be fabricated using 0.8 mm thick perforated aluminum sheet having a thickness as specified in the drawing and filled with fiber glass. The fiberglass shall be covered with RP tissue on all the sides. The internal duct surface shall also be lined with 25 mm thick fiber glass and finished with perforated aluminium sheet having a thickness of 0.8 mm. The louvers shall be secured properly with the specified spacing using a proper fixing arrangement. Provide reinforcement members to prevent the perforated aluminium sheet from sagging. Sound attenuator shall offer minimum resistance to airflow. The attenuator are to be inspected at the factory by the consultants/owners if required before dispatch to site. Provide selection and test certificates wherever required.	SQ.M	10	□ 5,500.00	□ 55,000.00
	COWL PIECE WITH BIRD SCREEN				
10	Supplying & erecting 22 SWG G.I sheet metal cawl sector shaped with 25 x 25 x 3 (mm) angle iron frame, metal mesh to avoid birds entry with necessary material, suitable for fresh air fan of 450 mm as per specification no FG-FAS/MSC	EACH	0	1,475.00	0.00
11	VOLUME CONTROL DAMPER				
	Supply, installation, testing and commissioning of manually operated, opposed blade, duct mounted, flanged volume control dampers of required sizes in GI construction complete with operating mechanism, mounting arrangement, rubber refrigerant kits etc. complete.	SQ.M	30	6,550.00	1,96,500.00
	FIRE DAMPER				
12	The Fire dampers constructed with the outer shell of 1.6mm thick galvanized steel frame and the blade/Leaf with 1.6mm thick GSS. And with necessary flanges for connection as per specifications.				

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Item No.	Description	Unit	Qty.	Rate	Amount
	With fusible link spring mechanism, the damper shall be held open by a replaceable fusible link rated at 74deg C. When the fusible link detached due to fire, the damper shall get closed tightly by the spring mechanism.				
	Fire Damper with Fusible link and other details as mentioned above.	SQ.M	20	6,531.00	1,30,620.00
	PIPING				
13	Supplying, laying/fixing testing & commissioning of following nominal size of chilled water piping inside the building (with necessary clamps, vibration isolators and fitting but excluding valve, strainer , guage etc.) duly insulated with following clsd cell elastomeric nitrile rubber of minimum 45kg / cu.m density, thermal conductivity 0.037 W/MK or better at 20 deg mean temperature class O insulation applied by suitable adhesive complete including repairing of damage to building etc.as per specification and as required complete in all respect.				
	Note:- the pipe of size 150mm & and below shall be M.S. 'C' class as per IS : 1239 and pipe size above 150mm shall be welded black steel pipe heavy class as per IS 3589, from minimum 6.35mm thick ms sheet for pipe of 350 mm dia. And from minimum 7mm thick MS Sheet for pipe of 400mm dia and above.				
13.1	200 Dia.(32mm thick insulation)	Rmt	60	5,532.00	3,31,920.00
13.2	150 Dia. (32mm thick insulation)	Rmt	60	4,278.00	2,56,680.00
13.3	125 Dia.(32mm thick insulation)	Rmt	30	3,742.00	1,12,260.00
	DRAIN PIPING				
14	Supply, installation, testing and commissioning of schedule 40 drain pipe with 6 Kg/m3 of pressure CPVC pipe to drain condensate water from indoor units, duly insulated with 13 mm thick Nitrile rubber sleeves complete with Tees, Bends, couplings, U trap, supporting accessories etc., as per IS 15778:2007, approved drawings & specifications				
14.1	25mm dia	RMT	0	210.00	0.00
14.2	32mm dia	RMT	40	311.00	12,440.00
14.3	40mm dia	RMT	15	509.00	7,635.00
14.4	50mm dia	RMT	0	743.00	0.00
	NOTES FOR PIPING:				
	Cover all open pipe ends with muslin cloth during construction				
	Unit rates for all indicated sizes of pipes & valves shall be furnished.				
	Cleaning/Painting of pipe before insulation shall be included in piping cost				
15	Supply installation & erection of supports Required pipe of MS material.	Ton	0.5	□ 1,95,000.00	□ 97,500.00
16	Supply, Installation, testing & commissioning of cast iron body Butterfly valves, PN 16 rating with matching flanges.				
16.1	300 mm dia	Nos	0	24,656.00	0.00
16.2	150 mm dia	Nos	5	8,333.00	41,665.00
16.3	125 mm dia	Nos	5	7,619.00	38,095.00
16.4	100 mm dia	Nos	0	6,640.00	0.00
16.5	80 mm dia	Nos	0	4,846.00	0.00
16.6	65 mm dia	Nos	0	4,530.00	0.00
16.7	50 mm dia	Nos	0	4,129.00	0.00
16.8	40 mm dia	Nos	0	3,501.00	0.00
17	Supply, installation, testing & commissioning of Brass/Carbon steel body Ball valve, The ball and the shaft shall be of stainless steel. The seat shall be of PTFE. The valve shall be complete with socket weld ends and with PN 16 rating.				

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NO. OF CORRECTIONS

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Item No.	Description	Unit	Qty.	Rate	Amount
17.1	32 mm dia	Nos	5	4,719.00	23,595.00
17.2	25 mm dia	Nos	5	4,719.00	23,595.00
18	Supply, installation, testing & commissioning of MS Y Strainers, PN 16 rating with matching flanges.				
18.1	150 mm dia	Nos	3	28,033.00	84,099.00
19	Supply & Installation of Single arch expansion joints (Rubber Bellows)	Nos	10	0.00	0.00
20	Supply, installation, testing & commissioning of flow sensors.	Nos	3	12,600.00	37,800.00
21	Supply, Installation, testing & commissioning of Temperature sensors and transmitter	Nos	5	15,000.00	75,000.00
22	Supply, installation, testing & commissioning of 150mm dia dial type pressure gauges with liquid filled and SS syphon & ball valve. Range: (0-16 kg/cm2)	Nos	10	2,500.00	25,000.00
23	Supply, installation, testing & commissioning of 150 mm dia dial type temperature gauges with liquid filled and Copper thermowell, 0-50 deg C	Nos	10	2,500.00	25,000.00
24	Supply, installation, testing & commissioning of Auto air vents with ball valve having brass body and Nylon float, PN 16.				
24.1	25 mm dia	Nos	2	2,200.00	4,400.00
25	Supply, installation, testing & commissioning of test points	Nos	5	9,500.00	47,500.00
26	Supply, installation, testing & commissioning of NRV Valve connections with control rods & matching flanges, PN 16.				
26.1	150mm dia	Nos	3	9,209.00	27,627.00
27	Supply, installation, testing & commissioning of Manual Balancing Valve connections with control rods & matching flanges, PN 16				
27.1	150 mm dia	Nos	2	1,61,646.00	3,23,292.00
27	Supply, Installation, Testing, Commissioning of Aluminium cladding with 22 gauge. (Thickness must be as per technical specifications)				
27.1	200 Dia	Rmt	30	1,500.00	45,000.00
27.2	150 Dia	Rmt	30	1,250.00	37,500.00
27.3	125 Dia	Rmt	30	1,150.00	34,500.00
STUDIO 5 & 7 TOTAL					1,76,53,159.00
Studio 16					
1	INDOOR UNIT				
	Floor - mounted AHU				
	S/I/T/C of floor mounted AHU with Double Skin Polyurethane foam (PU) insulation panel with 0.8 mm high strength powder coated steel as external skin and 0.8 mm galvanized steel (GI) as internal skin. The thermal break profile shall be provided with 50mm PU foam insulation thickness with a density of 48 kg/m3, which provides an overall thermal conductivity, $k = 0.017 \text{ W/(m}\cdot\text{K)}$. Unit shall be equipped with marine light & limit switch. Coil shall be designed at 8 °C inlet water temperature and outlet water temperature at 13°C. Air-handling unit shall consist of DIDW forward/Backward curve, Energy-efficient AMCA certified fans centrifugal fan mounted on a common solid shaft, which shall be driven by a motor through pulley and belts arrangement. Motor shall be Belt drive package, VFD duty compatible IE-3 TEFC squirrel cage induction motor suitable for operation on 415±10% Volts, 50 Hz, 3 Phase AC power supply. Valve package shall include - 1. Butterfly valve - 2 Nos. 2. Y-strainer - 1 Nos. 3. PICV valve - 1 Nos. 4. Pressure gauge - 2 Nos. 5. Temperature gauge - 2 Nos. 6. Air vent - 1 7. Drain valve - 1				

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
	Note:- Insulation shall be done on valves same as chilled water piping insulation. AHU Shall be supply as per tender specification & below mentioned capacities.				
	The pre filters shall be MERV 8 & fine will be MERV 13 - 90% efficiency 10 micron washable HDPE pre-filters 50 mm thick installed such that filters shall be easily accessible, fire retardant double canvass connections, volume control damper at AHU outlet, access doors with limit switch, maintenance lamp inside the fan section, SS insulated base tray with liberal drain connections on either side, complete as per specifications shall be included.				
	AHU's should be suitable for Floor mounted as Specified . Fan outlet velocity not to exceed 1800 fpm. Coil face velocity not to exceed 500 fpm. AHU Coil shall be designed for 54 F ADP.				
	The cost shall include BMS Compatible Starter & Control panel of 2mm thick CRCA sheet with OLP, SPP, ON/OFF push buttons with ON indications, A-M switch for remote operation, A-M Switch for switching to bypass starting instead of VFD starting, 3nos. NO-NC (non polarized) contacts for tripping on signal from fire dampers / fire alarm panel, remote status feedback. The AHU Panel shall be provisioned to house the AHU VFD and a standalone Controller & shall have a bypass arrangement for the AHU to run on normal starter incase of VFD failure. AHUs shall be controlled via VFD and Standalone Controller.				
	Cabling: Power cabling of copper armoured cable from panel to motor with double compression gland & Copper armoured Control cabling with hookup to its controller.				
	All floor mounted AHUs shall be delivered at site in CKD condition and assembled in place by skilled workmen of AHU supplier.(NOTE : CONTRACTOR SHALL VERIFY STATIC PRESSURE FROM CONSTRUCTION DRAWINGS BEFORE ORDERING.)				
	AHU shall be provided with test ports with plugs to facilitate testing & measuring of air quality before & after coil & after fan section.				
	"Mixing Box Section :- Mixing Box Shall have fresh air , return air damper. Fresh air spigot shall be suitable for 700 FPM velocity , return air spigot shall be suitable for 1200 FPM velocity. The damper shall be low leakage areofoil design and in aluminium construction Filter Section :- Filter (EU-4) having efficiency of 90 % down to 10 µ & 99% down to 5 microns. This section shall be suitable to installed above said filter. Fan Section :- Fan section shall be comprise of backward curve inclined DIDW centrifugal Fan. Fan & Fan motor & drive set package shall have common base frame with cushy foot mountings or spring isolators				
	AHU - 38000 CFM / 94 TR / 60 mmwg ESP	Nos	3	19,00,000.00	57,00,000.00
2	ELECTRICAL CABLING				
	Cabling :				
2.1	Power cabling between Starter panel to AHU as per the approved drawings (Armored Cable - sizes should be as per Unit OEM requirement)	RO		550.00	0.00
2.2	Control cabling between temperature transmitter and PICV valve & VFD.	RO		150.00	0.00
2.3	VFD :				
	SITC of Variable Frequency Drive with IP20 protection. The VFD shall be of the type suitable for operation on a 3 phase, 380 - 480 VAC, 50 HZ input power. numbers of VFD to be selected as per numbers of fan in single unit & Fan KW rating.	Nos	3	1,20,000.00	3,60,000.00

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
3	SHEET METAL WORKS:				
	Supplying, erecting, testing & commissioning GI sheet having zinc coating of 275 microns with galvanization process compliance to IS 2629:1985 to be used for fabrication of boxes panel boards etc. including cutting, bending, drilling, welding, riveting etc. and painting with one coat of red lead paint and 2 coats of enamel paint as per specification no. CP/SH/CR				
3.4	Ducting (20 G)	SQ.MT.	235	₹ 2,079.00	₹ 4,88,565.00
3.5	Ducting (22 G)	SQ.MT.	995	₹ 1,503.00	₹ 14,95,485.00
3.6	Ducting (24 G)	SQ.MT.	305	₹ 1,482.00	₹ 4,52,010.00
4	Flexible Canvas Connector :At all connections between ducts & fans/ Ducted Units/TFA; fire-retardant, lint-free double canvass/rexin connections of heavy gauge shall be provided. One set of canvas connection include required quantity of canvas for one evaporator indoor unit / Exhaust Or Fresh Air Fan.	EACH	4	₹ 2,952.00	₹ 11,808.00
	Notes:				
	The ducting support should be as per tender specification and additional supports to be provided as per consultants instructions.				
	Muslin cloth cover for all air outlets during construction.				
	Pressure testing of complete duct work as per DW/ SMACNA standard.				
	Silicon sealant shall be applied for longitudinal & transverse joints as per specification.				
5	THERMAL & ACOUSTIC INSULATION:				
	Providing and applying of acoustic insulation for air ducts with 25mm thick,48 kg/cu.m fiber glass faced with RP tissue and covered with 26 SWG perforated aluminium sheets complete.	Sqmtr	750	1,191.00	8,93,250.00
6	Providing adhesive thermal insulation for supply return air duct with 19mm nitrile rubber insulation having R-value as per the prevailing provisions in ECBC- 2017.	Sqmtr	2621	1,048.00	27,46,808.00
	Note:				
	Insulation work to be coordinated with other agencies and repair to be included by contractor as per site requirement.				
	Vendors to take care of the installation, if any damages takes place the vendor to repair or replace and hand over to clients in good and acceptable condition.				
	GRILL				
7	Supply, Installation and Balancing of powder coated Extruded aluminium Supply air & Return air grill. Sizes & technical details shall be in accordance with approved shop drawings and specifications. Supply air shall be provide with collar damper.	RMT	15	1,364.00	20,460.00
	JET DIFFUSER				
8	Supply, Installation and Balancing of powder coated Extruded aluminium Jet Diffuser. Sizes & technical details shall be in accordance with approved shop drawings and specifications.				
	400Dia	Nos	95	5,000.00	4,75,000.00
9	The duct sound attenuator shall be factory fabricated with 1.25 mm thick GS sheets or one gauge higher than the standard duct. The flanges shall be of angle iron type. The insulation material used shall be of fiberglass having a density of 25 kg/cum. Only slabs shall be used and loose pieces shall not be used. The louvers in the sound attenuator shall be fabricated using 0.8 mm thick perforated aluminum sheet having a thickness as specified in the drawing and filled with fiber glass. The fiberglass shall be covered with RP tissue on all the sides. The internal duct surface shall also be lined with 25 mm thick fiber glass and finished	SQ.M	10	₹ 5,500.00	₹ 55,000.00

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
	with perforated aluminium sheet having a thickness of 0.8 mm. The louvers shall be secured properly with the specified spacing using a proper fixing arrangement. Provide reinforcement members to prevent the perforated aluminium sheet from sagging. Sound attenuator shall offer minimum resistance to airflow. The attenuator are to be inspected at the factory by the consultants/owners if required before dispatch to site. Provide selection and test certificates wherever required.				
	COWL PIECE WITH BIRD SCREEN				
10	Supplying & erecting 22 SWG G.I sheet metal cawl sector shaped with 25 x 25 x 3 (mm) angle iron frame, metal mesh to avoid birds entry with necessary material, suitable for fresh air fan of 450 mm as per specification no FG-FAS/MS	EACH	0	₹ 1,475.00	₹ 0.00
11	VOLUME CONTROL DAMPER				
	Supply, installation, testing and commissioning of manually operated, opposed blade, duct mounted, flanged volume control dampers of required sizes in GI construction complete with operating mechanism, mounting arrangement, rubber refrigerant kits etc. complete.	SQ.M	30	₹ 6,550.00	₹ 1,96,500.00
12	FIRE DAMPER				
	The Fire dampers constructed with the outer shell of 1.6mm thick galvanized steel frame and the blade/Leaf with 1.6mm thick GSS. And with necessary flanges for connection as per specifications.				
	With fusible link spring mechanism, the damper shall be held open by a replaceable fusible link rated at 74deg C. When the fusible link detached due to fire, the damper shall get closed tightly by the spring mechanism.				
	Fire Damper with Fusible link and other details as mentioned above.	SQ.M	18	6,531.00	1,17,558.00
13	PIPING				
	Supplying, laying/fixing testing & commissioning of following nominal size of chilled water piping inside the building (with necessary clamps, vibration isolators and fitting but excluding valve, strainer , guage etc.) duly insulated with following closed cell elastomeric nitrile rubber of minimum 45kg / cu.m density, thermal conductivity 0.037 W/MK or better at 20 deg mean temperature class O insulation applied by suitable adhesive complete including repairing of damage to building etc.as per specification and as required complete in all respect.				
	Note:- the pipe of size 150mm & and below shall be M.S. 'C' class as per IS : 1239 and pipe size above 150mm shall be welded black steel pipe heavy class as per IS 3589, from minimum 6.35mm thick ms sheet for pipe of 350 mm dia. And from minimum 7mm thick MS Sheet for pipe of 400mm dia and above.				
13.1	200 Dia.(32mm thick insulation)	Rmt	60	5,532.00	3,31,920.00
13.2	150 Dia. (32mm thick insulation)	Rmt	60	4,278.00	2,56,680.00
13.3	125 Dia.(32mm thick insulation)	Rmt	15	3,742.00	56,130.00
14	DRAIN PIPING				
	Supply, installation, testing and commissioning of schedule 40 drain pipe with 6 Kg/m3 of pressure CPVC pipe to drain condensate water from indoor units, duly insulated with 13 mm thick Nitrile rubber sleeves complete with Tees, Bends, couplings, U trap, supporting accessories etc., as per IS 15778:2007, approved drawings & specifications				
14.1	25mm dia	RMT	0	210.00	0.00
14.2	32mm dia	RMT	20	311.00	6,220.00
14.3	40mm dia	RMT	15	509.00	7,635.00
14.4	50mm dia	RMT	0	743.00	0.00

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NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
	NOTES FOR PIPING:				
	Cover all open pipe ends with muslin cloth during construction				
	Unit rates for all indicated sizes of pipes & valves shall be furnished.				
	Cleaning/Painting of pipe before insulation shall be included in piping cost				
15	Supply installation & erection of supports Required pipe of MS material.	Ton	0.5	1,95,000.00	97,500.00
	VALVE & FITTINGS				
16	Supply, Installation, testing & commissioning of cast iron body Butterfly valves, PN 16 rating with matching flanges.				
16.1	300 mm dia	Nos	0	24,656.00	0.00
16.2	150 mm dia	Nos	5	8,333.00	41,665.00
16.3	125 mm dia	Nos	5	7,619.00	38,095.00
16.4	100 mm dia	Nos	0	6,640.00	0.00
16.5	80 mm dia	Nos	0	4,846.00	0.00
16.6	65 mm dia	Nos	0	4,530.00	0.00
16.7	50 mm dia	Nos	0	4,129.00	0.00
16.8	40 mm dia	Nos	0	3,501.00	0.00
17	Supply, installation, testing & commissioning of Brass/Carbon steel body Ball valve, The ball and the shaft shall be of stainless steel. The seat shall be of PTFE. The valve shall be complete with socket weld ends and with PN 16 rating.				
17.1	32 mm dia	Nos	5	4,719.00	23,595.00
17.2	25 mm dia	Nos	5	4,719.00	23,595.00
18	Supply, installation, testing & commissioning of MS Y Strainers, PN 16 rating with matching flanges.				
18.1	150 mm dia	Nos	3	28,033.00	84,099.00
19	Supply & Installation of Single arch expansion joints (Rubber Bellows)	Nos	10	9,600.00	96,000.00
20	Supply, Installation, testing & commissioning of flow sensors.	Nos	3	12,600.00	37,800.00
21	Supply, Installation, testing & commissioning of Temperature sensors and transmitter	Nos	5	15,000.00	75,000.00
22	Supply, installation, testing & commissioning of 150mm dia dial type pressure gauges with liquid filled and SS syphon & ball valve. Range: (0-16 kg/cm ²)	Nos	10	2,500.00	25,000.00
23	Supply, installation, testing & commissioning of 150 mm dia dial type temperature gauges with liquid filled and Copper thermowell, 0-50 deg C	Nos	10	2,500.00	25,000.00
24	Supply, installation, testing & commissioning of Auto air vents with ball valve having brass body and Nylon float, PN 16.				
24.1	25 mm dia	Nos	3	2,200.00	6,600.00
25	Supply, installation, testing & commissioning of test points	Nos	3	9,500.00	28,500.00
26	Supply, installation, testing & commissioning of NRV Valve connections with control rods & matching flanges, PN 16.				
26.1	150mm dia	Nos	3	9,209.00	27,627.00
27	Supply, installation, testing & commissioning of Manual Balancing Valve connections with control rods & matching flanges, PN 16				
27.1	150 mm dia	Nos	2	1,61,646.00	3,23,292.00
27	Supply, Installation, Testing, Commissioning of Aluminium cladding with 22 gauge. (Thickness must be as per technical specifications)				
27.1	200 Dia	Rmt	30	1,500.00	45,000.00
27.2	150 Dia	Rmt	30	1,250.00	37,500.00
27.3	125 Dia	Rmt	45	1,150.00	51,750.00
STUDIO 16 TOTAL					1,47,79,491.00

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NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
Hospital; Building					
	HIGH SIDE				
	VRF SYSTEM				
A	VRF ODU				
1	Supplying, erecting, testing and commissioning of 24 HP, VRF/VRV air conditioning system outdoor unit (ODU) complies type-IV OEM standards working on HFC refrigerant R410A or other required/suitable green equivalent refrigerant, for minimum cooling capacity as delivering 100% capacity at 47° C, non stop cooling even at 56° C and coefficient of performance (COP) 3.00 to 4.00, modular type vertical hot air discharge suitable for longer piping range upto 1000 metre operation in cooling mode with inverter/digital VRF/VRV technology microprocessor based control compressor starter/control panel with scroll compressor, air cooled copper condenser coil of suitable shape for increasing maximum heat transfer area, rain protection cover, built in oil separator, accumulator and oil receiver, copper tube aluminium fin air cooled condenser, condenser fan with motor suitable for 415V±10%, 50 Hz, 3 phase power supply (all suitable for high ambient conditions), internal copper refrigerant piping, internal wiring and refrigerant, etc. all housed in powder coated weather proof cabinet complete.	Each	1	5,43,095.00	5,43,095.00
B	VRF INDOOR UNIT				
2.3	CASSETTE UNIT				
2.3.1	Supply, installation, testing and commissioning of VRF/VRV based ceiling suspended 4 Way cassette room/indoor unit (IDU-compact/standard size) of nominal cooling capacity 1.0TR (441 cfm) to 1.3TR (512 cfm) having EER as per BEE standards and specifications, suitable as per site requirement with swing louvers and adjustable blades from sides. IDU with drainage arrangements, fan, refrigerant liquid and refrigerant piping, cordless remote control, and fresh air port etc. IDU shall have anti corrosive coating suitable for coastal area in all respects suitable to operate on 1-phase, 230V, 50Hz, AC supply complete. The unit consisting with any additional refrigerant and oil charge as per requirement during installation.	Each	20	35,225.00	7,04,500.00
2.3.2	Supply, installation, testing and commissioning of VRF/VRV based ceiling suspended 4 Way cassette room/indoor unit (IDU-compact/standard size) of nominal cooling capacity 1.5TR (512 cfm) to 1.8TR (618 cfm) having EER as per BEE standards and specifications, suitable as per site requirement with swing louvers and adjustable blades from sides. IDU with drainage arrangements, fan, refrigerant liquid and refrigerant piping, cordless remote control, and fresh air port etc. IDU shall have anti corrosive coating suitable for coastal area in all respects suitable to operate on 1-phase, 230V, 50Hz, AC supply complete. The unit consisting with any additional refrigerant and oil charge as per requirement during installation.	Each	3	37,640.00	1,12,920.00
	LOW SIDE				
3	ELECTRICAL CABLING				
3.1	COMMUNICATION CABLING				
	Supplying, erecting & terminating of Copper Flexible Power and control Cables 2C x 1.5Sqmm (with PVC conduiting) suitable for the above VRF system connecting the indoor and outdoor units irrespective of No. of circuits.	m	160	112.00	17,920.00
	POWER CABLE				
4	VRV PIPING WITH INSULATION				
	Pipe dia. - Liquid Line in mm.				
	Pipe dia. - Suction Line in mm.				

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

Item No.	Description	Unit	Qty.	Rate	Amount
4.2	supplying, laying/fixing, testing and commissioning of appropriate nominal refrigerant copper pipe of 9.5 mm dia (OD) for liquid line/suction line supply and return piping of suitable gauge (hard copper pipe for liquid main line and soft copper pipe for refrigerant) along with necessary supports, hangers, clamps, vibration isolators and fittings such as bends, tees, valves, gauges, strainers with insulation of 19mm thick elastomeric nitrile rubber along with application of multicoating of VRV/VRF piping for protection against mechanical damages, fungal growth, flame spread, water permeance and ultraviolet radiations with OEM standards of VRV/VRF air conditioning system complete.	m	260	700.00	1,82,000.00
4.3	supplying, laying/fixing, testing and commissioning of appropriate nominal refrigerant copper pipe of 12.7mm dia (OD) for liquid line/suction line supply and return piping of suitable gauge (hard copper pipe for liquid main line and soft copper pipe for refrigerant) along with necessary supports, hangers, clamps, vibration isolators and fittings such as bends, tees, valves, gauges, strainers with insulation of 19mm thick elastomeric nitrile rubber along with application of multicoating of VRV/VRF piping for protection against mechanical damages, fungal growth, flame spread, water permeance and ultraviolet radiations with OEM standards of VRV/VRF air conditioning system complete.	m	165	831.00	1,37,115.00
4.4	supplying, laying/fixing, testing and commissioning of appropriate nominal refrigerant copper pipe of 15.9 mm dia (OD) for liquid line/suction line supply and return piping of suitable gauge (hard copper pipe for liquid main line and soft copper pipe for refrigerant) along with necessary supports, hangers, clamps, vibration isolators and fittings such as bends, tees, valves, gauges, strainers with insulation of 19mm thick elastomeric nitrile rubber along with application of multicoating of VRV/VRF piping for protection against mechanical damages, fungal growth, flame spread, water permeance and ultraviolet radiations with OEM standards of VRV/VRF air conditioning system complete.	m	63	1,119.00	70,497.00
4.5	supplying, laying/fixing, testing and commissioning of appropriate nominal refrigerant copper pipe of 19.1 mm dia (OD) for liquid line/suction line supply and return piping of suitable gauge (hard copper pipe for liquid main line and soft copper pipe for refrigerant) along with necessary supports, hangers, clamps, vibration isolators and fittings such as bends, tees, valves, gauges, strainers with insulation of 19mm thick elastomeric nitrile rubber along with application of multicoating of VRV/VRF piping for protection against mechanical damages, fungal growth, flame spread, water permeance and ultraviolet radiations with OEM standards of VRV/VRF air conditioning system complete.	m	30	1,272.00	38,160.00
4.6	supplying, laying/fixing, testing and commissioning of appropriate nominal refrigerant copper pipe of 22.2mm dia (OD) for liquid line/suction line supply and return piping of suitable gauge (hard copper pipe for liquid main line and soft copper pipe for refrigerant) along with necessary supports, hangers, clamps, vibration isolators and fittings such as bends, tees, valves, gauges, strainers with insulation of 19mm thick elastomeric nitrile rubber along with application of multicoating of VRV/VRF piping for protection against mechanical damages, fungal growth, flame spread, water permeance and ultraviolet radiation with OEM standards of VRV/VRF air conditioning system complete.	m	15	1,634.00	24,510.00

Item No.	Description	Unit	Qty.	Rate	Amount
4.7	supplying, laying/fixing, testing and commissioning of appropriate nominal refrigerant copper pipe of 28.6 mm dia (OD) for liquid line/suction line supply and return piping of suitable gauge (hard copper pipe for liquid main line and soft copper pipe for refrigerant) along with necessary supports, hangers, clamps, vibration isolators and fittings such as bends, tees, valves, gauges, strainers with insulation of 19mm thick elastomeric nitrile rubber along with application of multicasting of VRV/VRF piping for protection against mechanical damages, fungal growth, flame spread, water permeance and ultraviolet radiation with OEM standards of VRV/VRF air conditioning system complete.	m	20	2,435.00	48,700.00
5	Supplying and installation of high pressure grade required size copper connection Y or T- Joints/refnet complete erected on wall/ceiling with supports/raceways, Nitrile rubber insulation, painting etc. with brazing and testing for leakages confirming the normal operation of the VRV/VRF air conditioning system.	Each	22	6,144.00	1,35,168.00
6	DRAIN PIPING				
	Providing and Fixing in position the following PVC pipes cut to required lengths and necessary fittings with 9 mm thick Elastomeric Nitrile Rubber insulation				
i	Supplying and erecting HMS PVC conduit FRLS grade 25 mm dia. With necessary accessories in wall/floor with chiselling appropriately as per specification No: WG-MA/CC.	m	75	116.00	8,700.00
	Supplying and erecting HMS PVC conduit FRLS grade 25 mm dia. With necessary accessories in wall/floor with chiselling appropriately as per specification No: WG-MA/CC.	m	25	153.00	3,825.00
HOSPITAL BUILDING TOTAL					20,81,750.00

Part "A"

Sr. No.	Work Portion	Total Tender Cost
1	Civil & Repair Work Portion	Rs. 36,80,71,395/-
2	Electrical, Fire Fighting & HVAC work Portion	Rs. 9,28,81,185/-
	Total Amount	Rs. 46,09,52,581/-

PART - B

Overall Budgeted Summary of Repair and Upgradation of studio 1,2,5,7,16 & Hospital Building (Civil And Electrical Work Portion)

Sr. No.	Add % items	Cost in INR	Remarks (If Any)
1	Total Estimated Principle amount For Repair and Upgradation of studio 1,2,5,7,16 & Hospital Building	46,09,52,581.00	Fourty Six Crore Nine Lakhs Fifty Two Thousand Five Hundered and Eighty One Only
2	Add 5% Contingencies	2,30,47,629.00	
3	Add 5% Escalation	2,30,47,629.00	
4	Total Estimated Principle amount Including Contingencies And Escalation Repair and Upgradation of studio 1,2,5,7,16 & Hospital Building.	50,70,47,839.00	Fifty Crore Seventy Lakhs Fourty Seven Thousand Eight Hundred and Thirty Nine only
5	Add CGST 9 %	4,56,34,305.00	
6	Add SGST 9 %	4,56,34,305.00	
7	Total Budgeted Amount Including Contingencies And Escalation, GST For Repair and Upgradation of studio 1,2,5,7,16 & Hospital Building.	59,83,16,450.00	Fifty-Nine Crore Eighty Three Lakhs Sixteen thousand Four hundred and Flfity only.

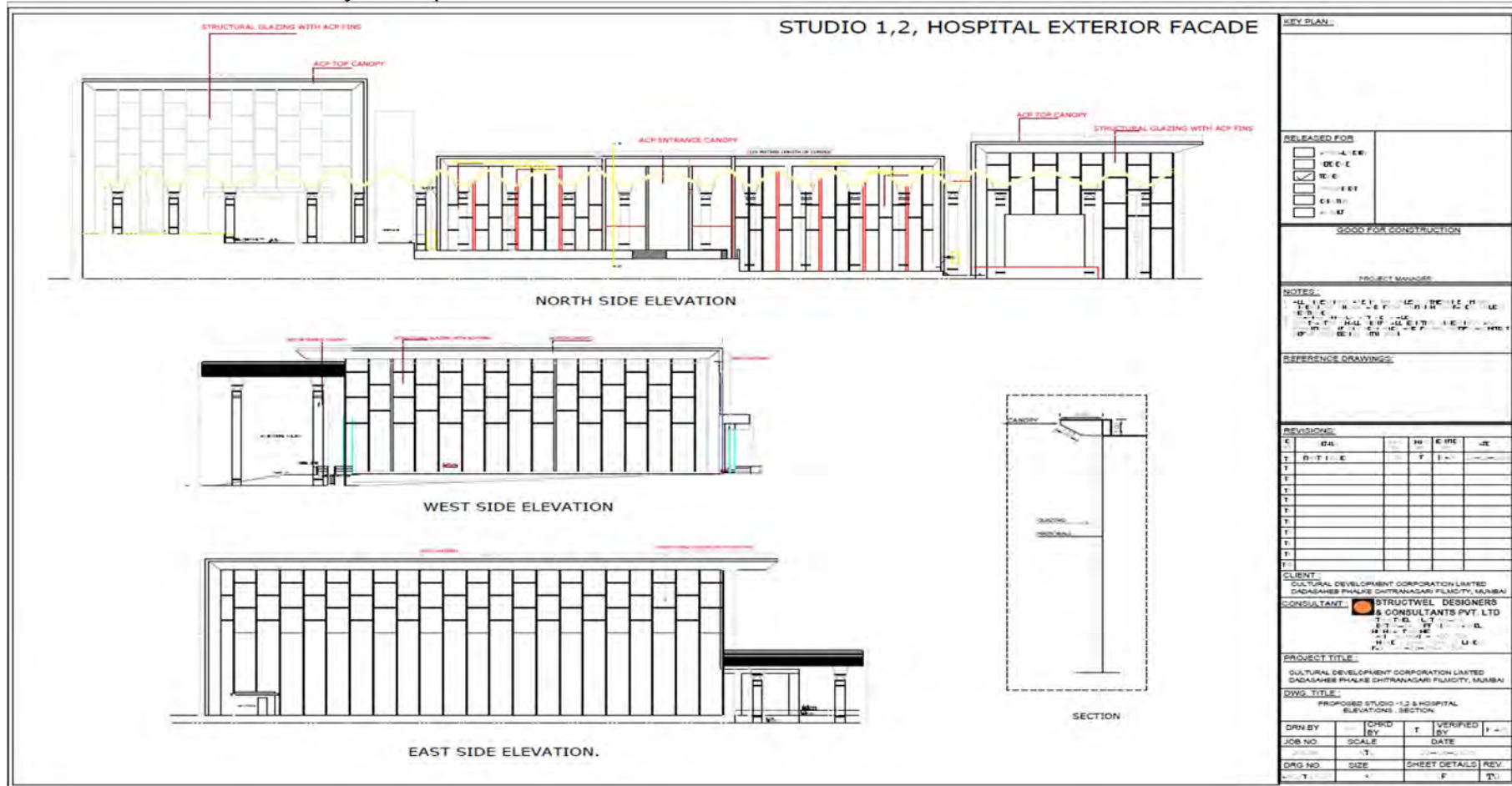
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17.0 Tender Drawings-Annexe 2 (Initial Reference Only)

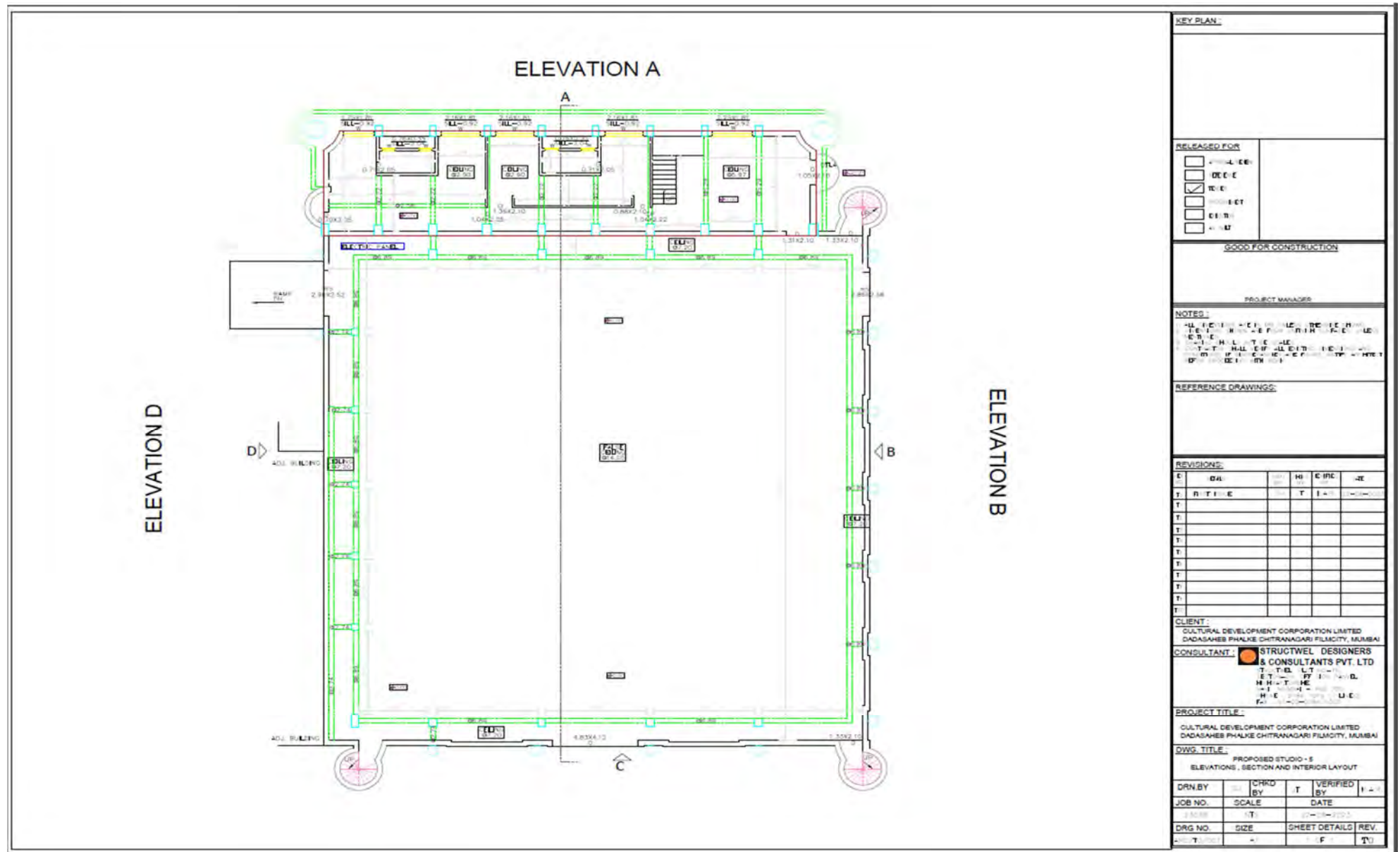
Note: The Drawings/Details Presented here are Preliminary /Tentative and only for Tendering and Initial Reference. Thus Participating Contractors/Users are advised to visit the Site before quoting their Price/offer in the Tender Process. The adequacy of these drawings shall be verified/upgraded by the Contractor on their own cost by duly vetting these drawings from IIT Mumbai/VJTI/NIT Nagpur and shall be further utilized for execution as may be required.



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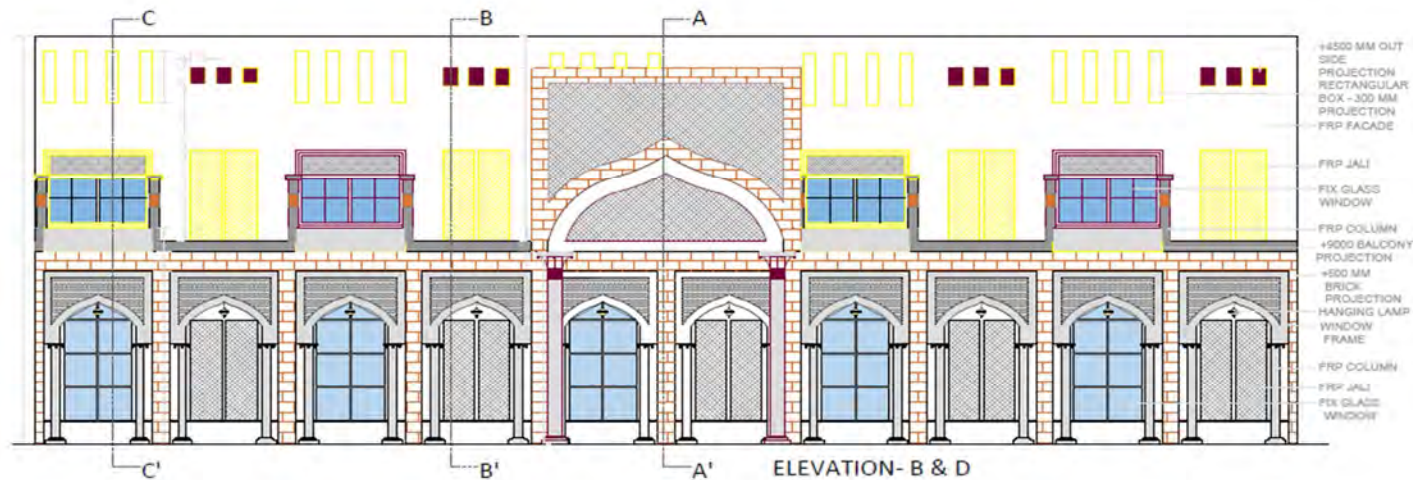
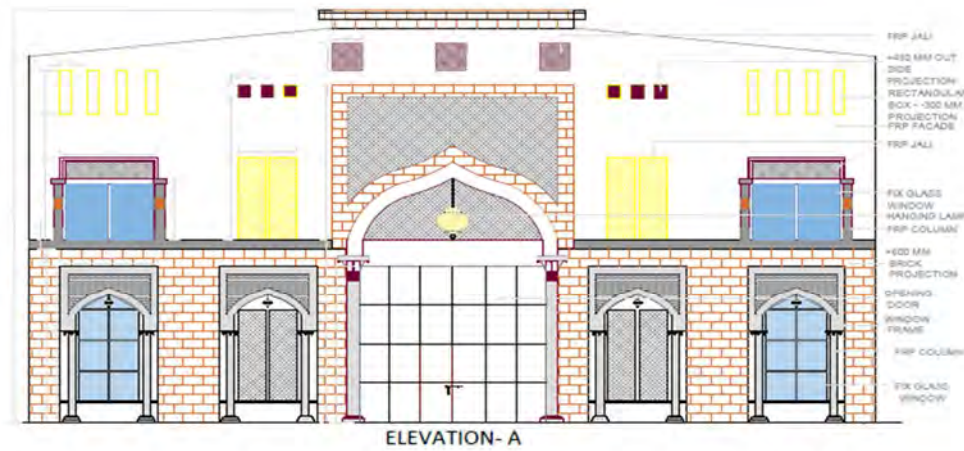


STUDIO - 5 FLOOR PLAN SHOWING PROPOSED ELEVATION UPGRADATION

CONTRACTOR

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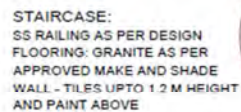
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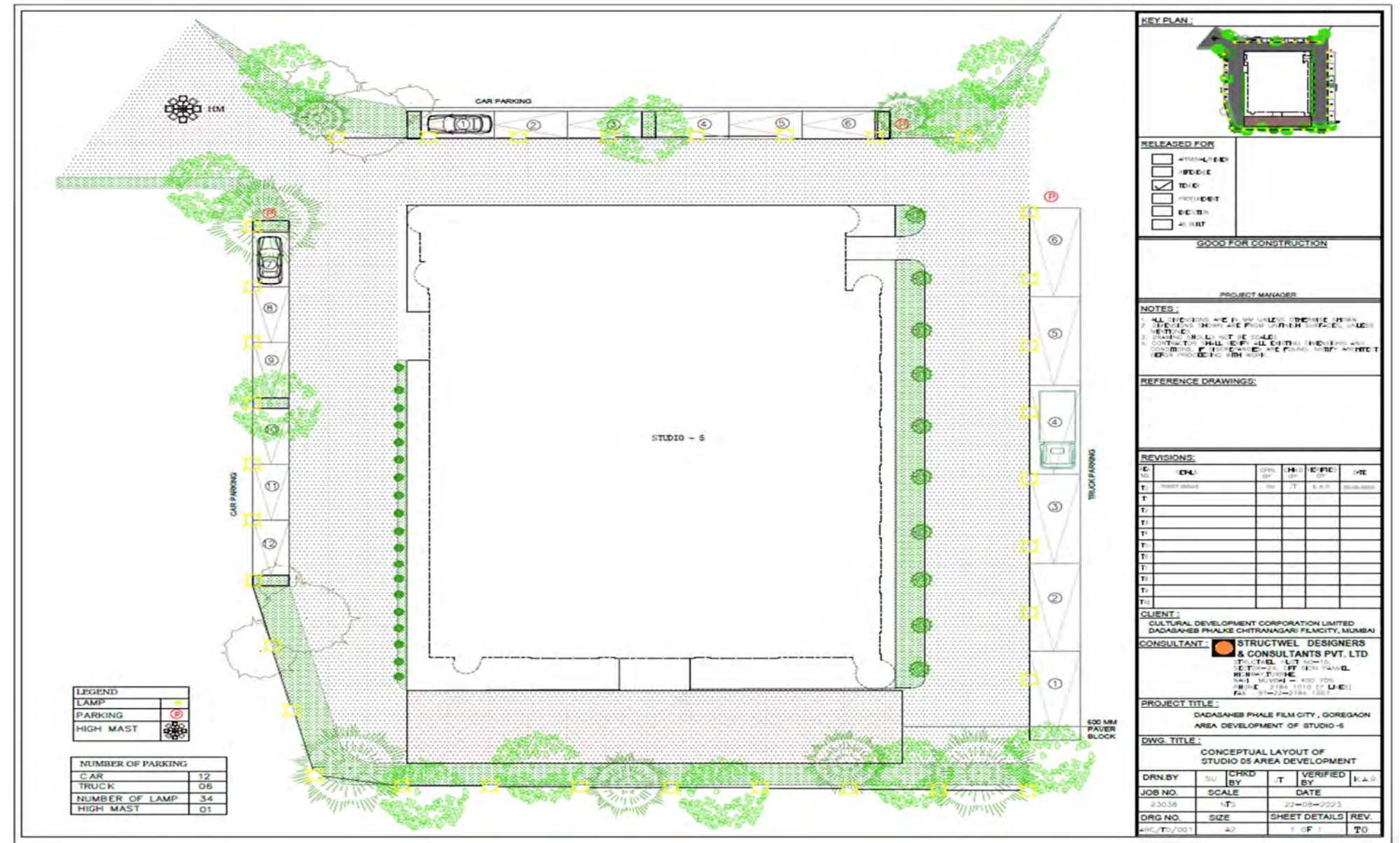
STUDIO – 5 PROPOSED EXTERNAL FACADE DEVELOPMENT

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DEPUTY ENGINEER (CIVIL)



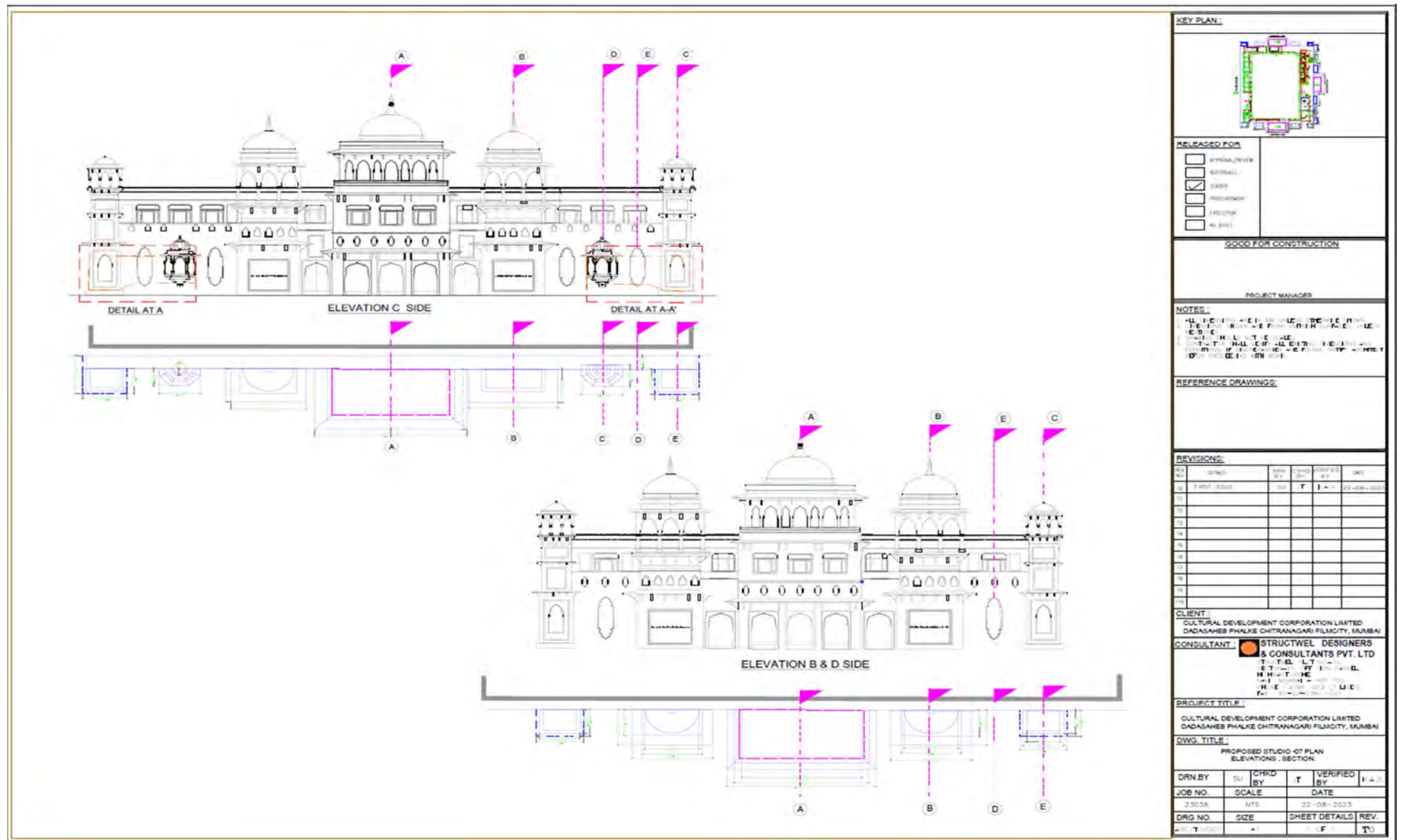


STUDIO - 5 PROPOSED AREA DEVELOPMENT

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DEPUTY ENGINEER (CIVIL)



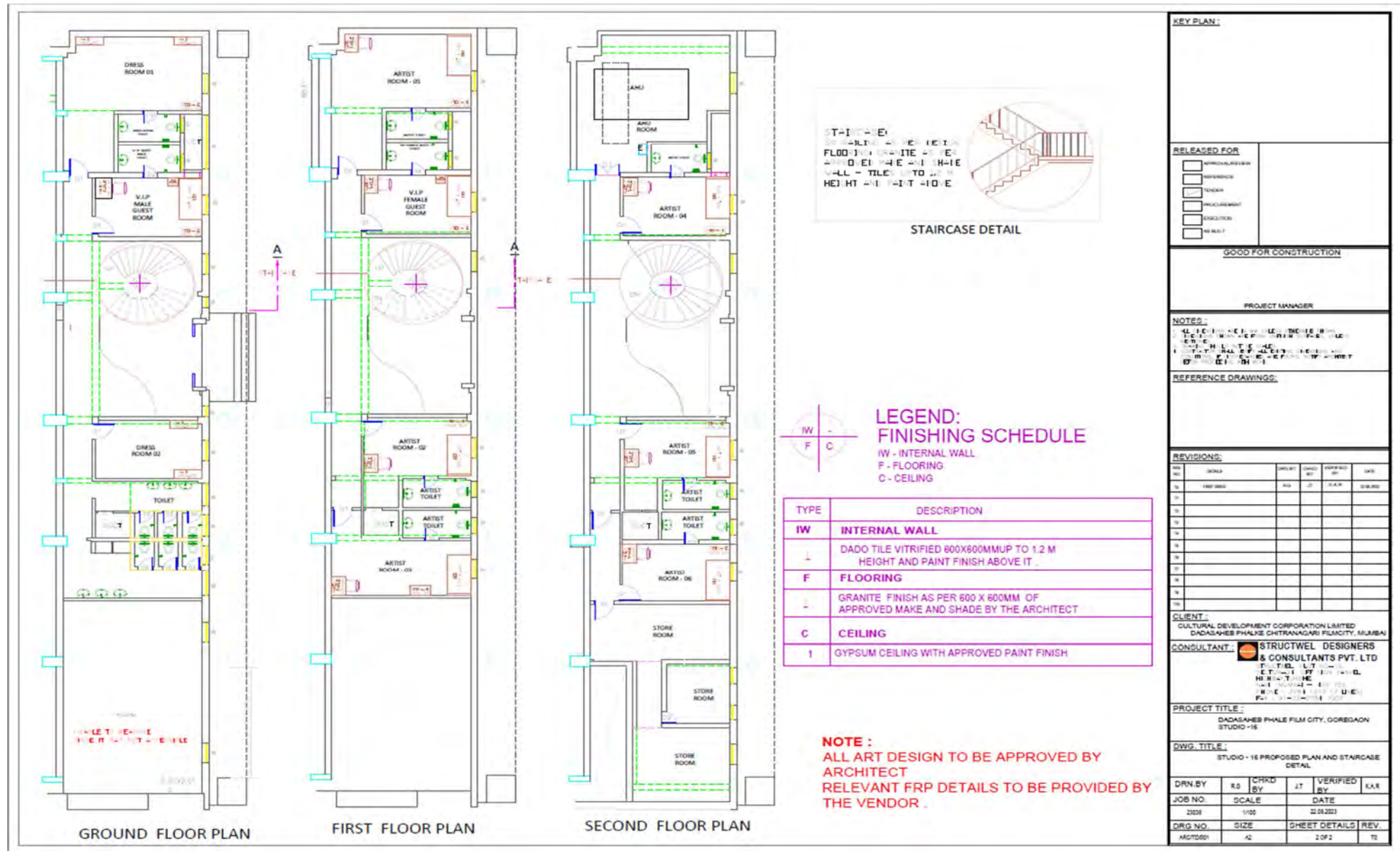
STUDIO - 7 PROPOSED ELEVATIONS

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NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

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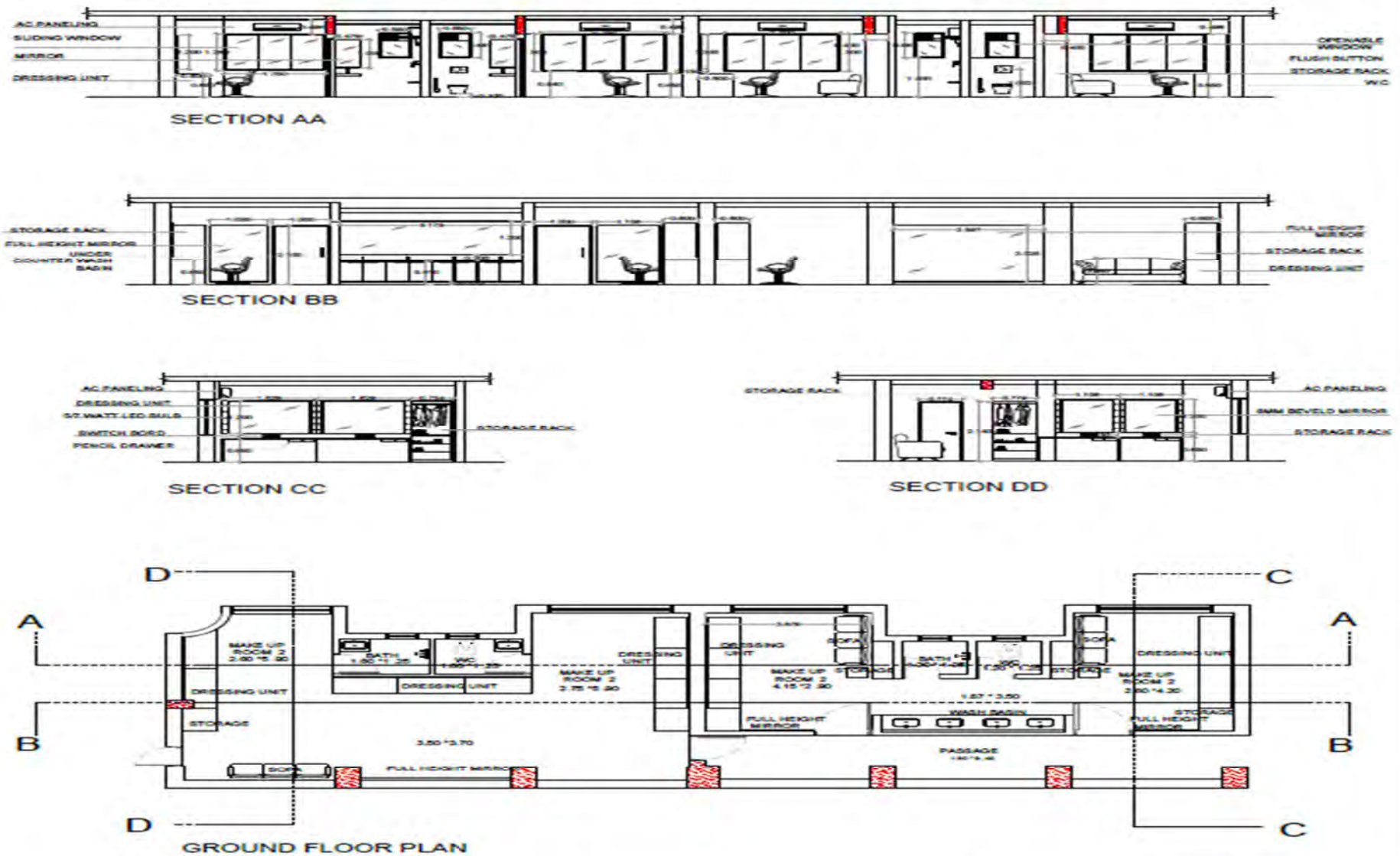


STUDIO - 16 INTERIOR PLAN

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DEPUTY ENGINEER (CIVIL)



STUDIO 5 MAKE UP ROOM

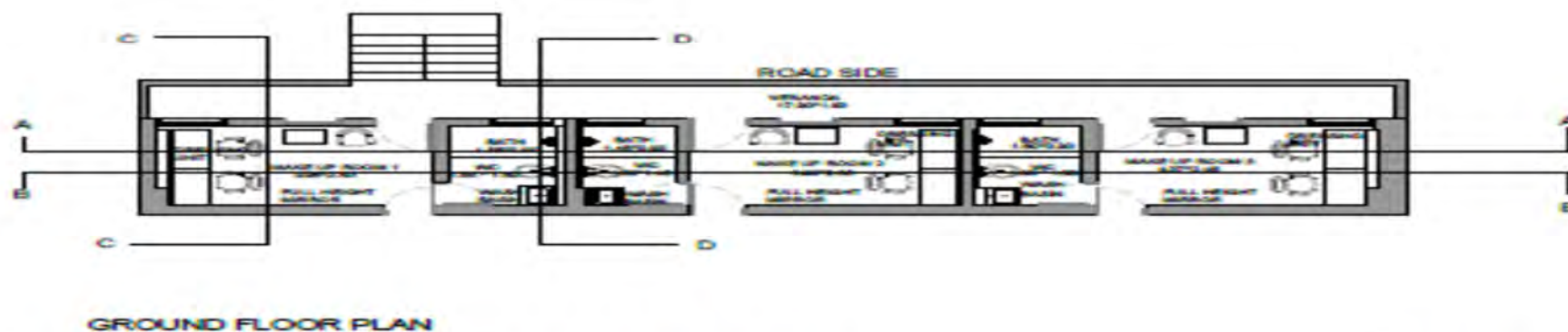
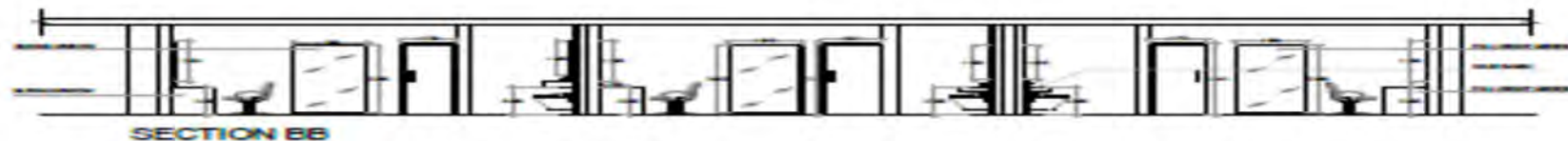
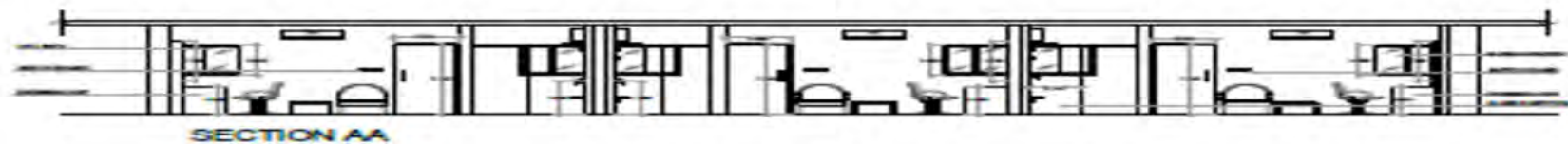
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NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)



STUDIO 7 - MAKE UP ROOM

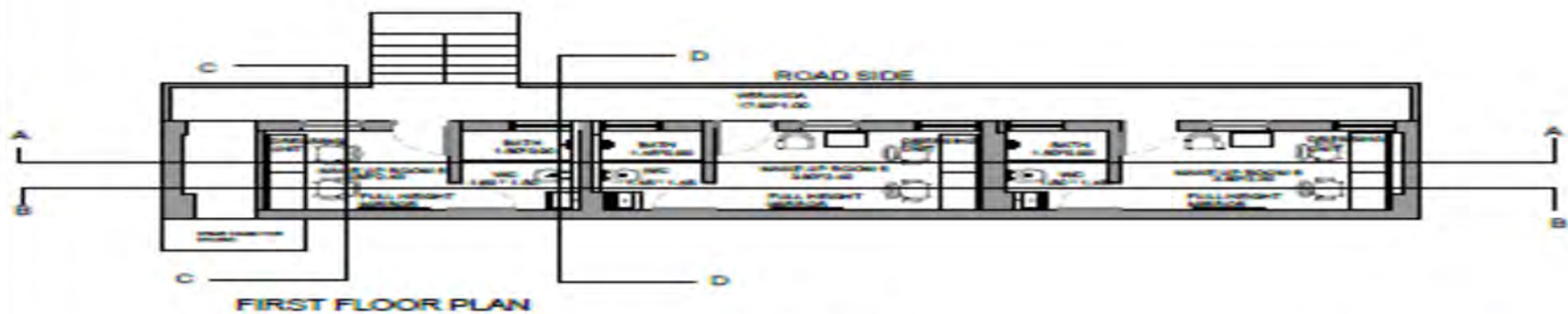
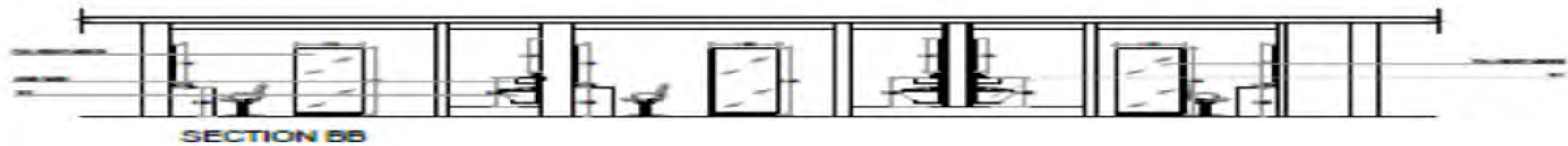
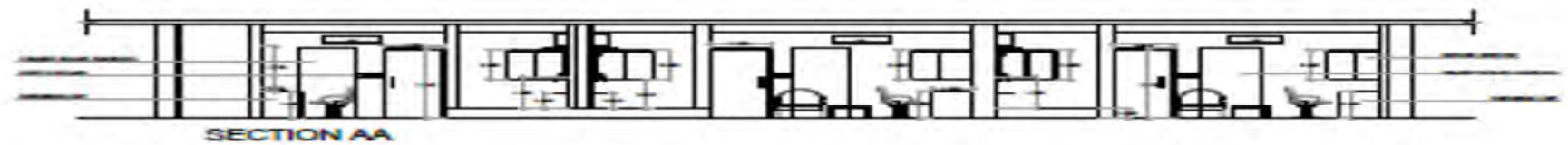
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NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)



STUDIO 7 - MAKE UP ROOM

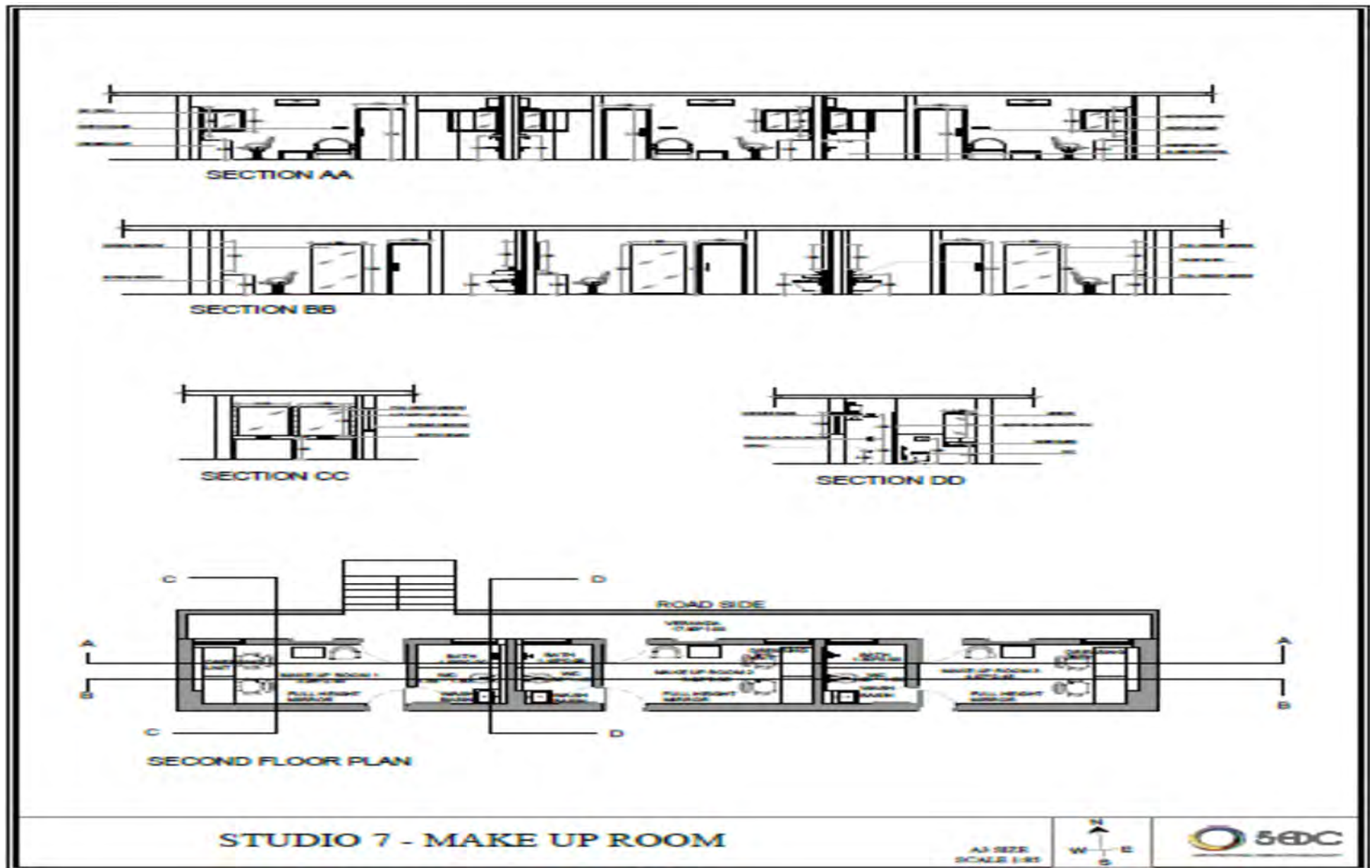
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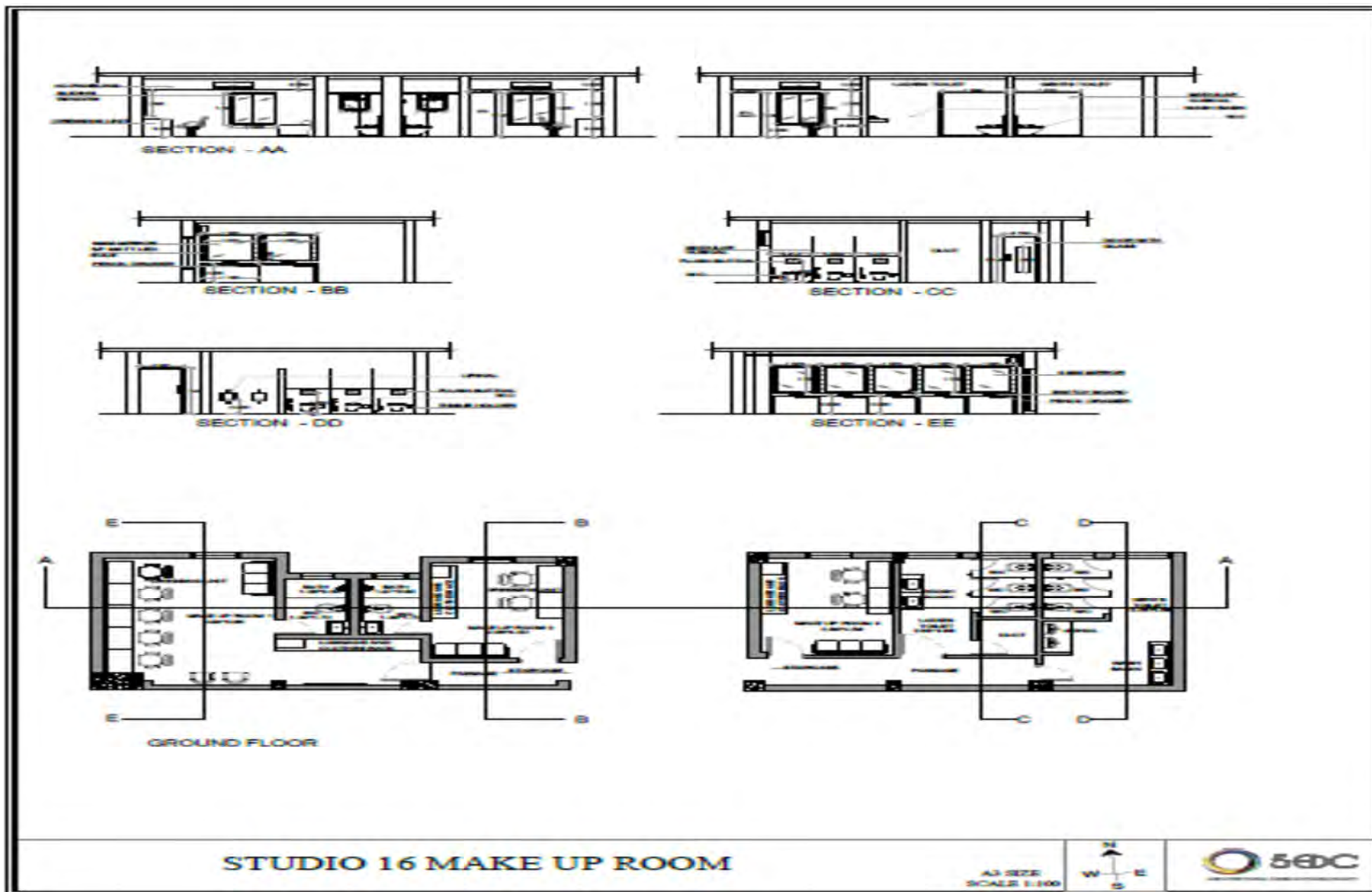
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CONTRACTOR

NO. OF CORRECTIONS

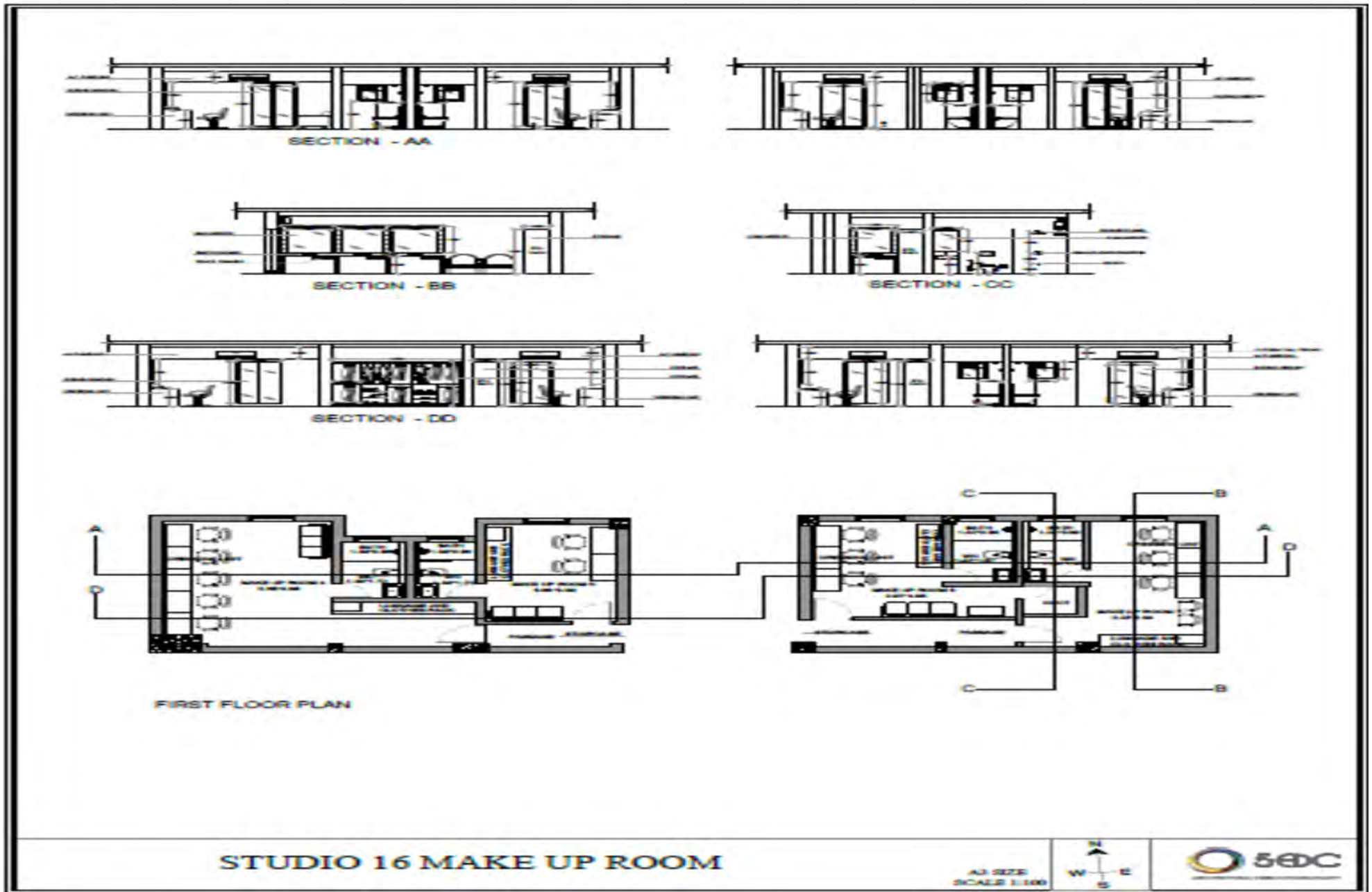
DEPUTY ENGINEER (CIVIL)



CONTRACTOR

NO. OF CORRECTIONS

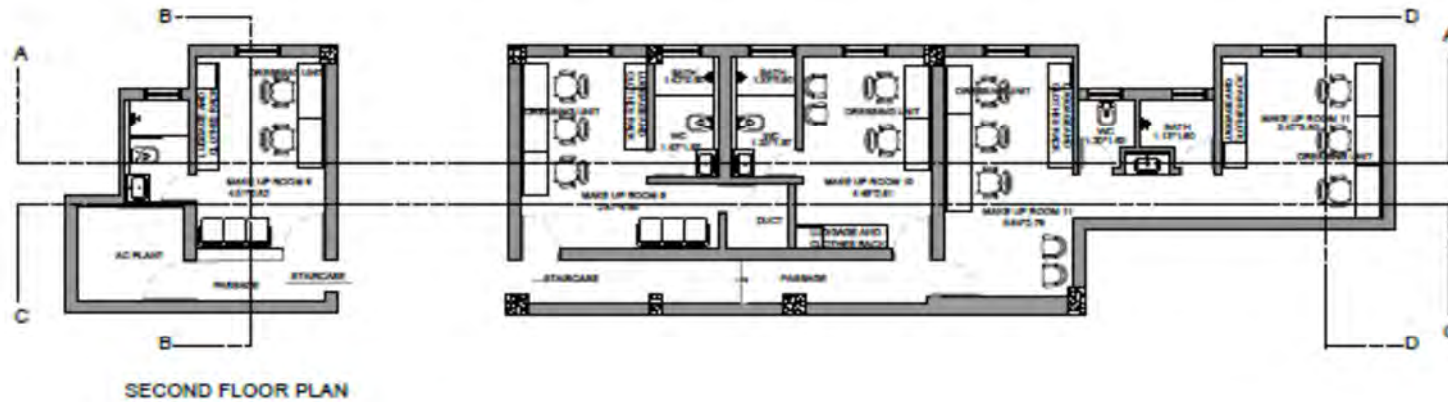
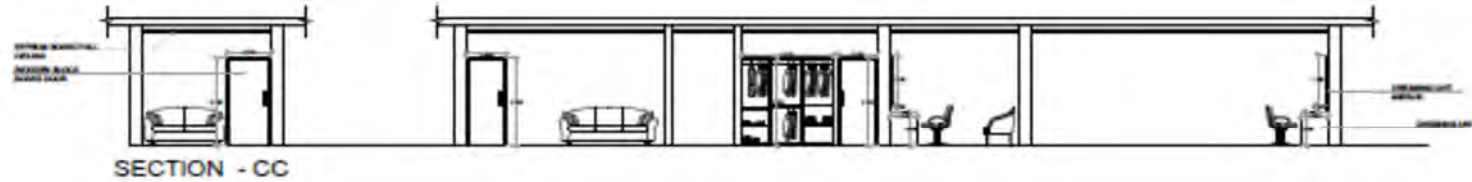
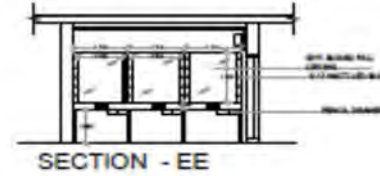
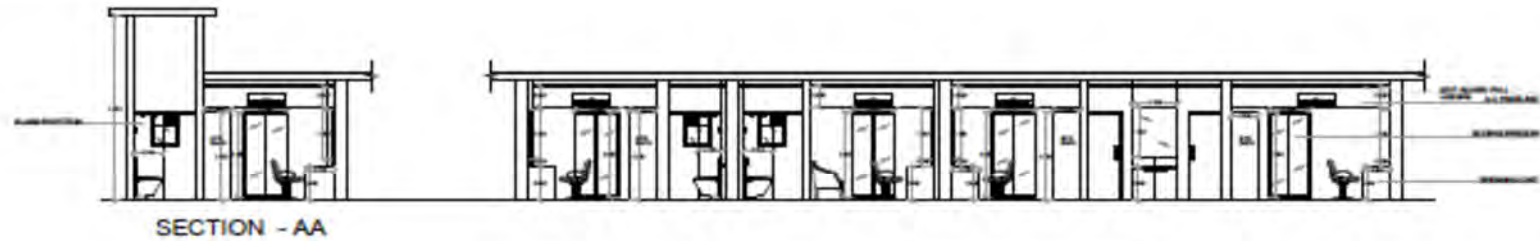
DEPUTY ENGINEER (CIVIL)



CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)



STUDIO 16 MAKE UP ROOM

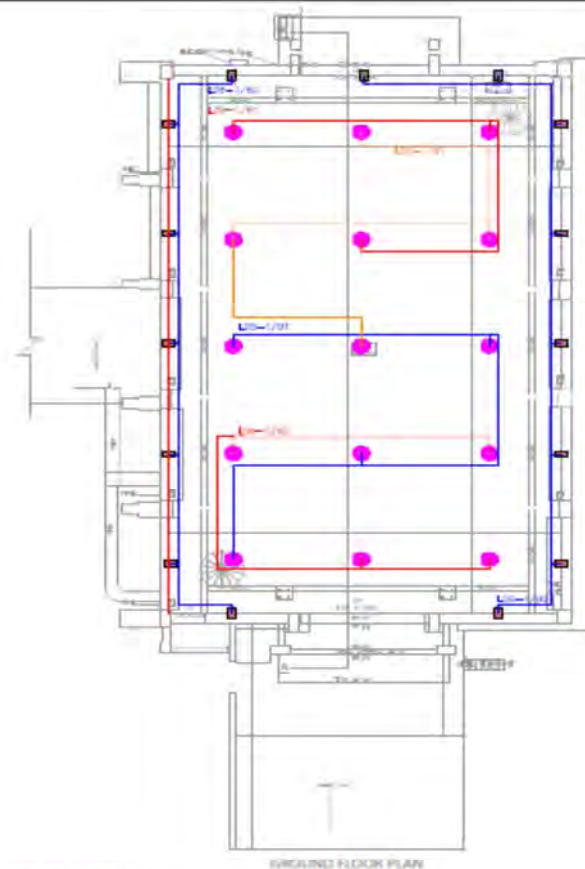
A3 SIZE
SCALE 1:100



CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)



STUDIO-01 LDB



LEGEND :-

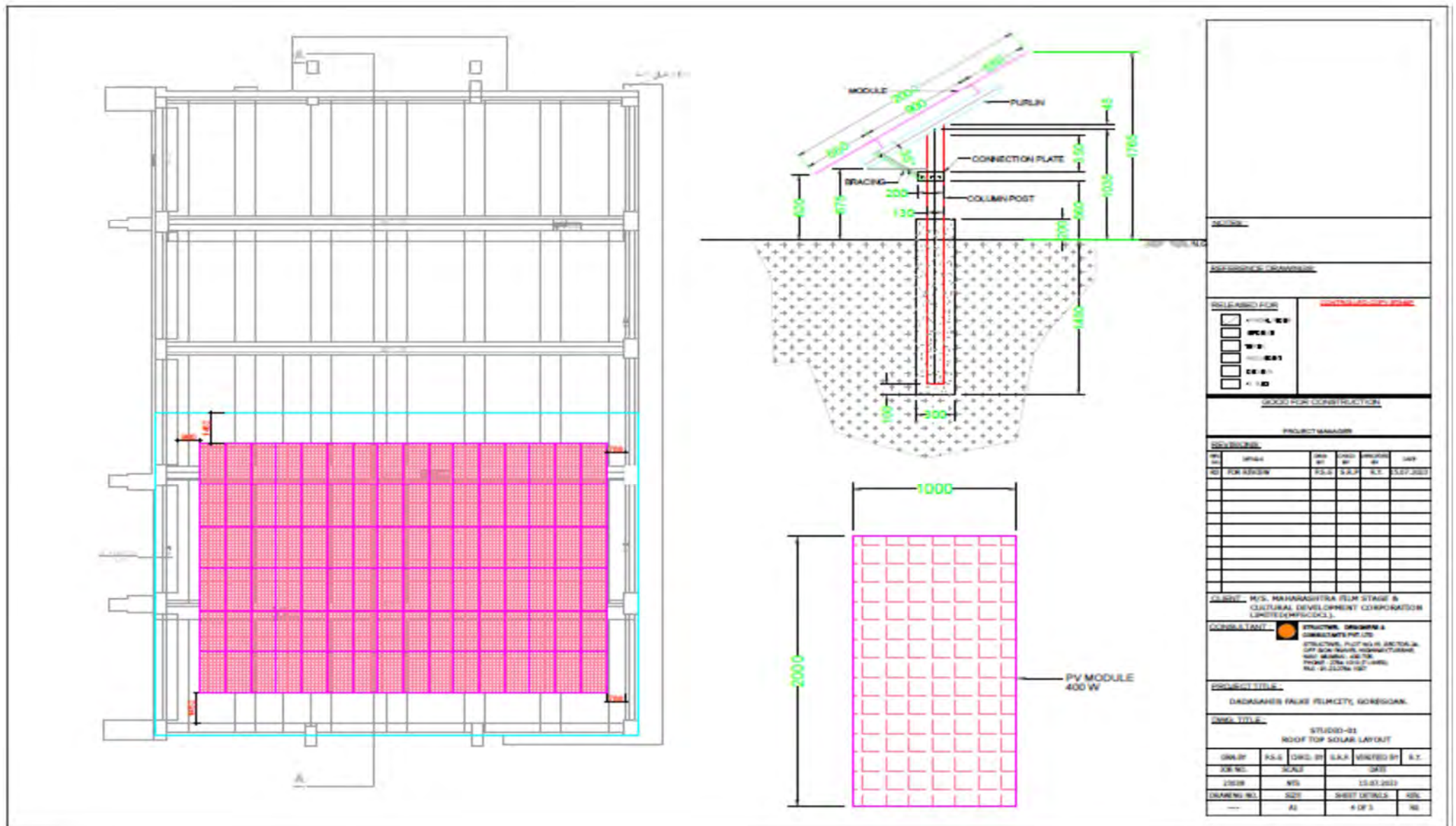
SYMBOL	DESCRIPTION
	150 W LED Highbay Light Fixture
	12 W Surface Mounted Down Light
	11 W Bulkhead Light Fixture

NOTES				
REFERENCE DRAWINGS				
RELEASED FOR	PROJECT MANAGER			
☐ APPROVED ☐ REVISED ☐ IN PROGRESS ☐ ON HOLD ☐ AT RISK	☐ APPROVED ☐ REVISED ☐ IN PROGRESS ☐ ON HOLD ☐ AT RISK			
GOOD FOR CONSTRUCTION				
REVISIONS				
NO.	REVISION	DATE	BY	DATE
01	FOR REVIEW	05.07.2022	E.T.	05.07.2022
CLIENT : M/S. MAHARASHTRA FILM STAGE & CULTURAL DEVELOPMENT CORPORATION LIMITED(M/S-CCDL)				
CONSULTANT : STRUCTURAL DESIGN & CONSULTANTS PVT. LTD.				
PROJECT TITLE : DADASAHEB FALKE FILMCITY, GOREGAON.				
DWG. TITLE : STUDIO-01 GROUND FLOOR-LIGHTING LAYOUT				
DATE	05.07.2022	DATE	05.07.2022	DATE
01	01	01	01	01
DRAWING NO.	001	SHEET NO.	01	01
01	01	01	01	01

CONTRACTOR

NO. OF CORRECTIONS

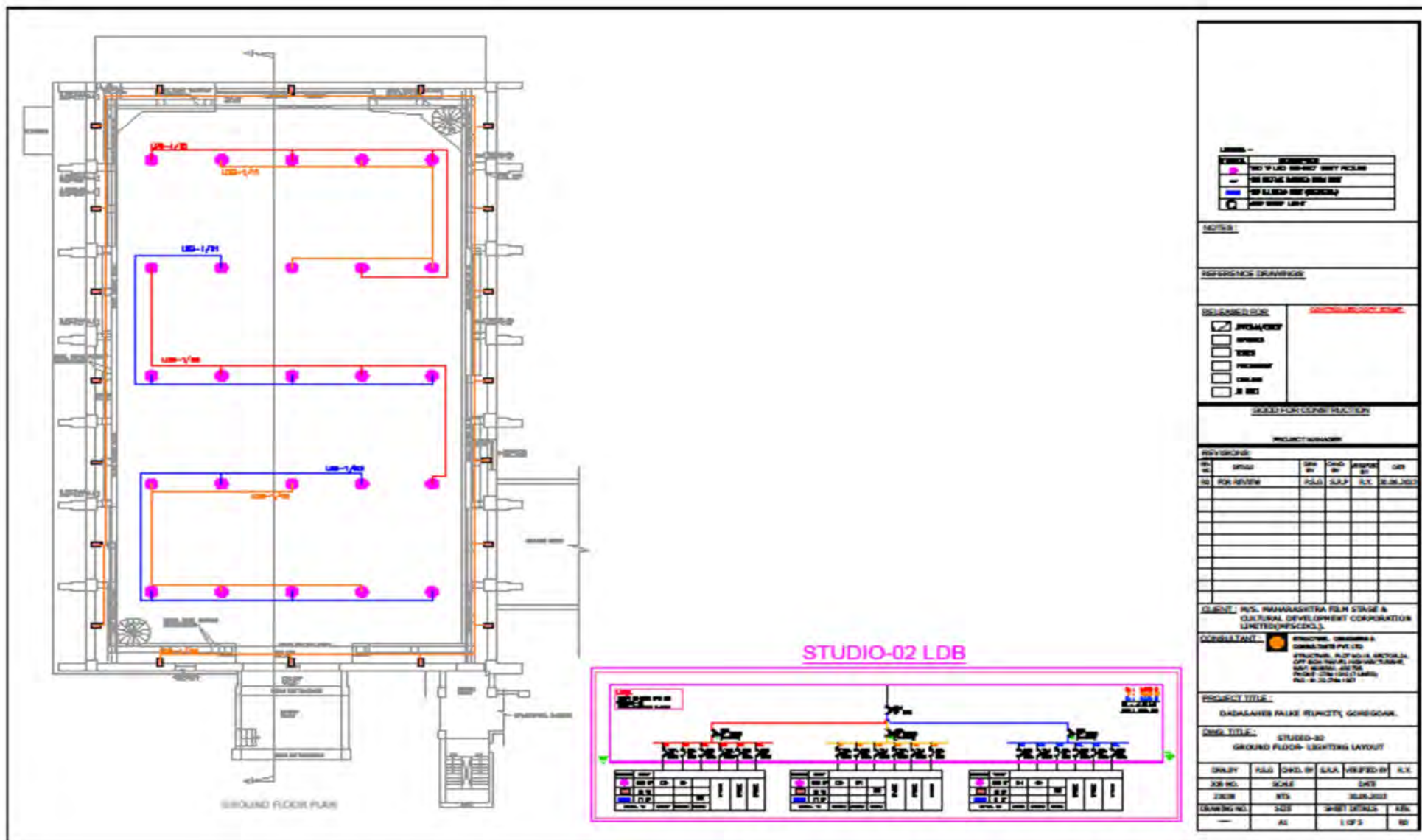
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CONTRACTOR

NO. OF CORRECTIONS

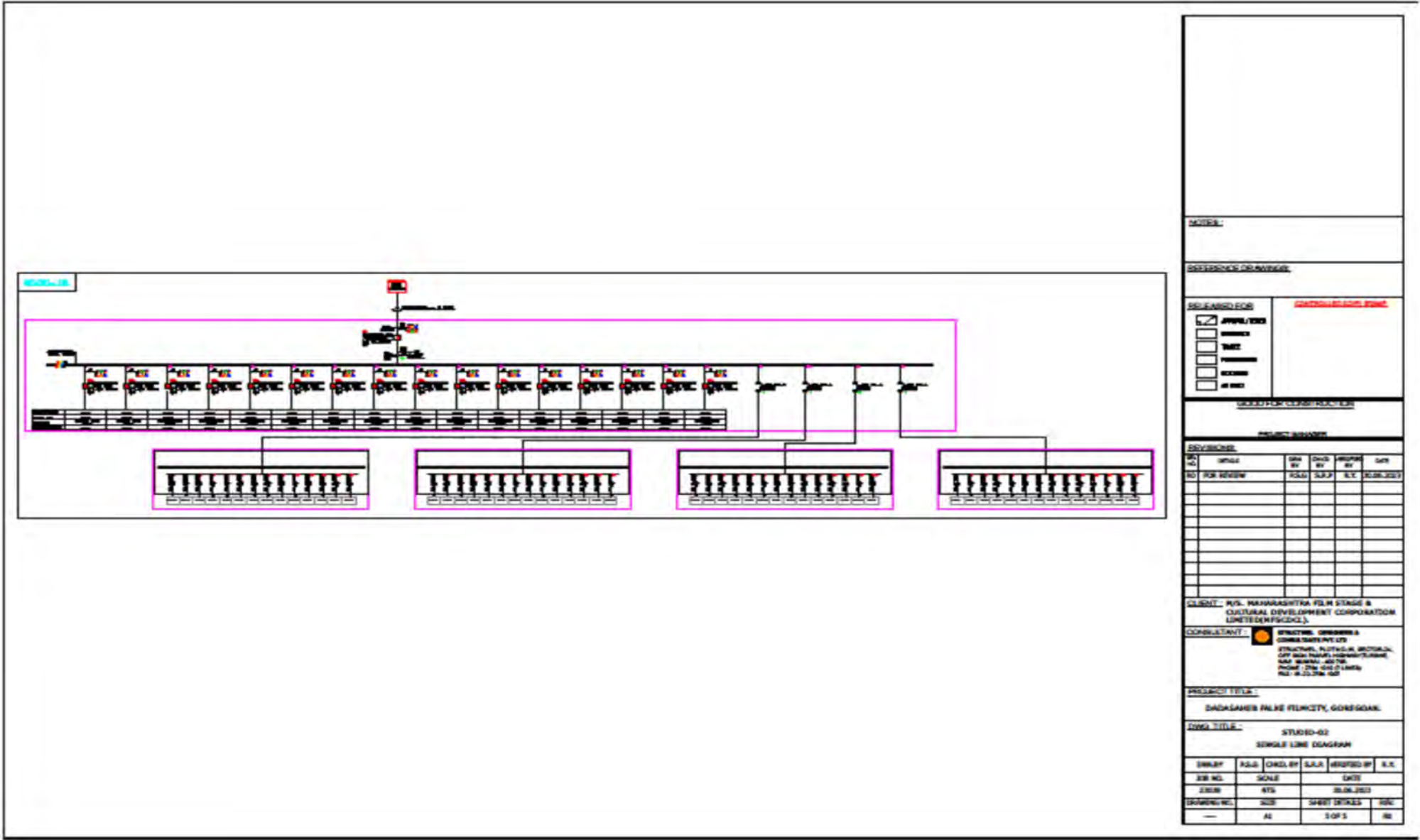
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CONTRACTOR

NO. OF CORRECTIONS

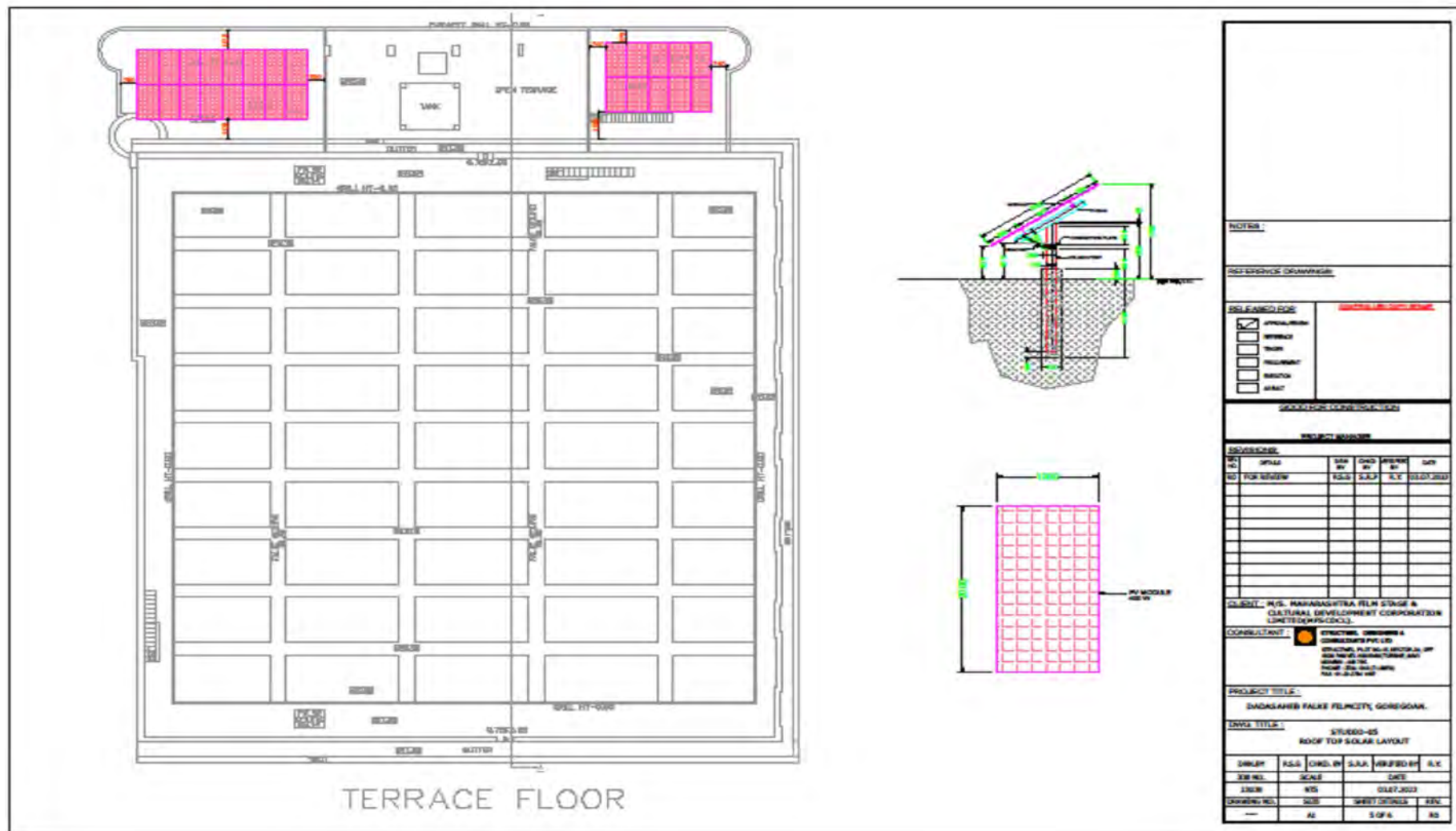
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CONTRACTOR

NO. OF CORRECTIONS

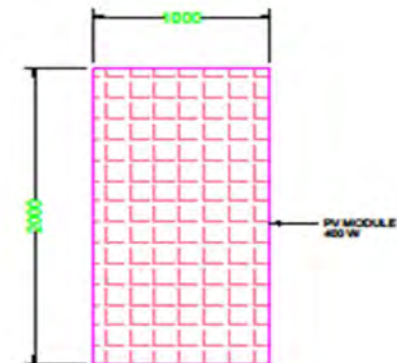
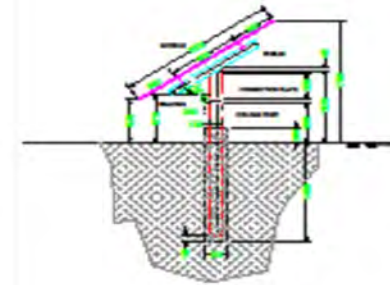
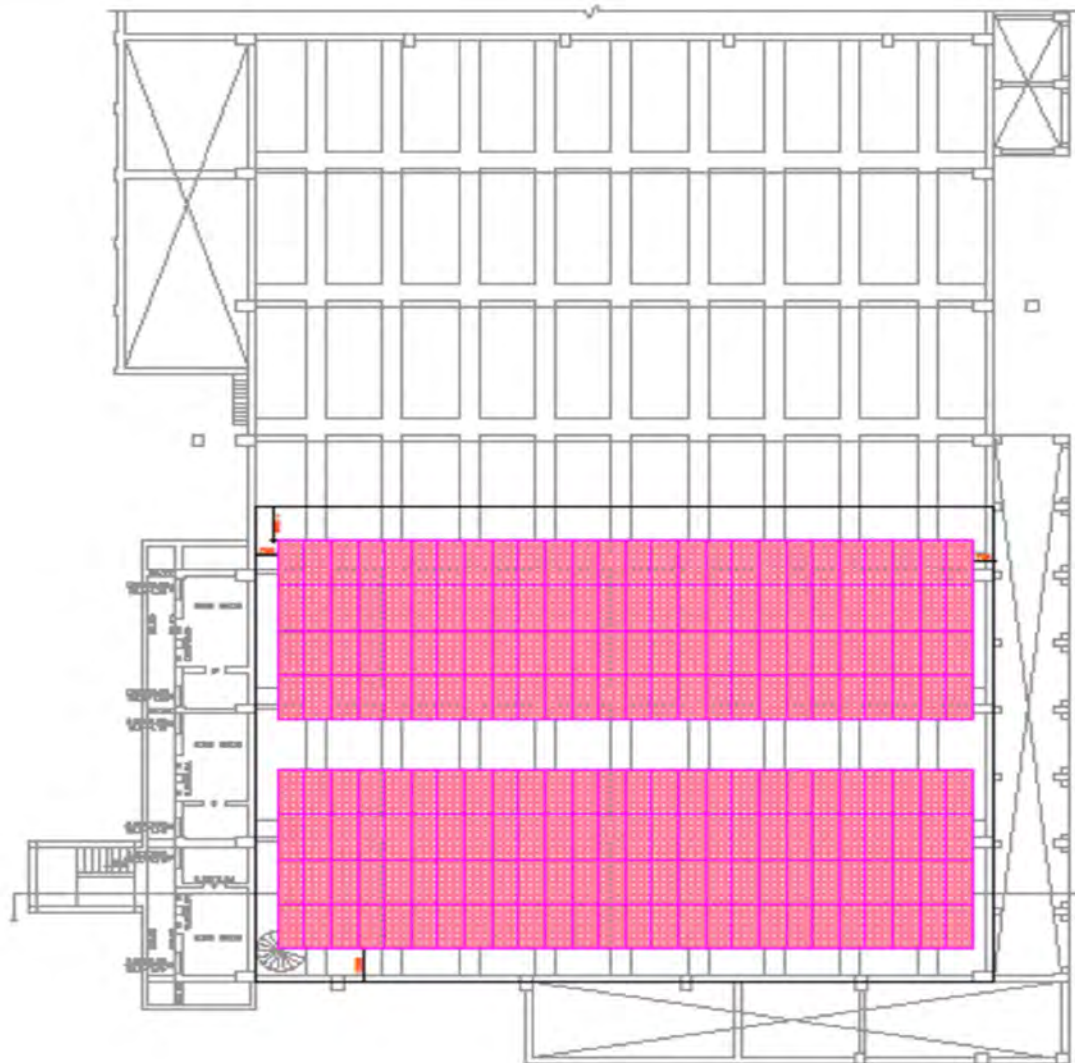
DEPUTY ENGINEER (CIVIL)



CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

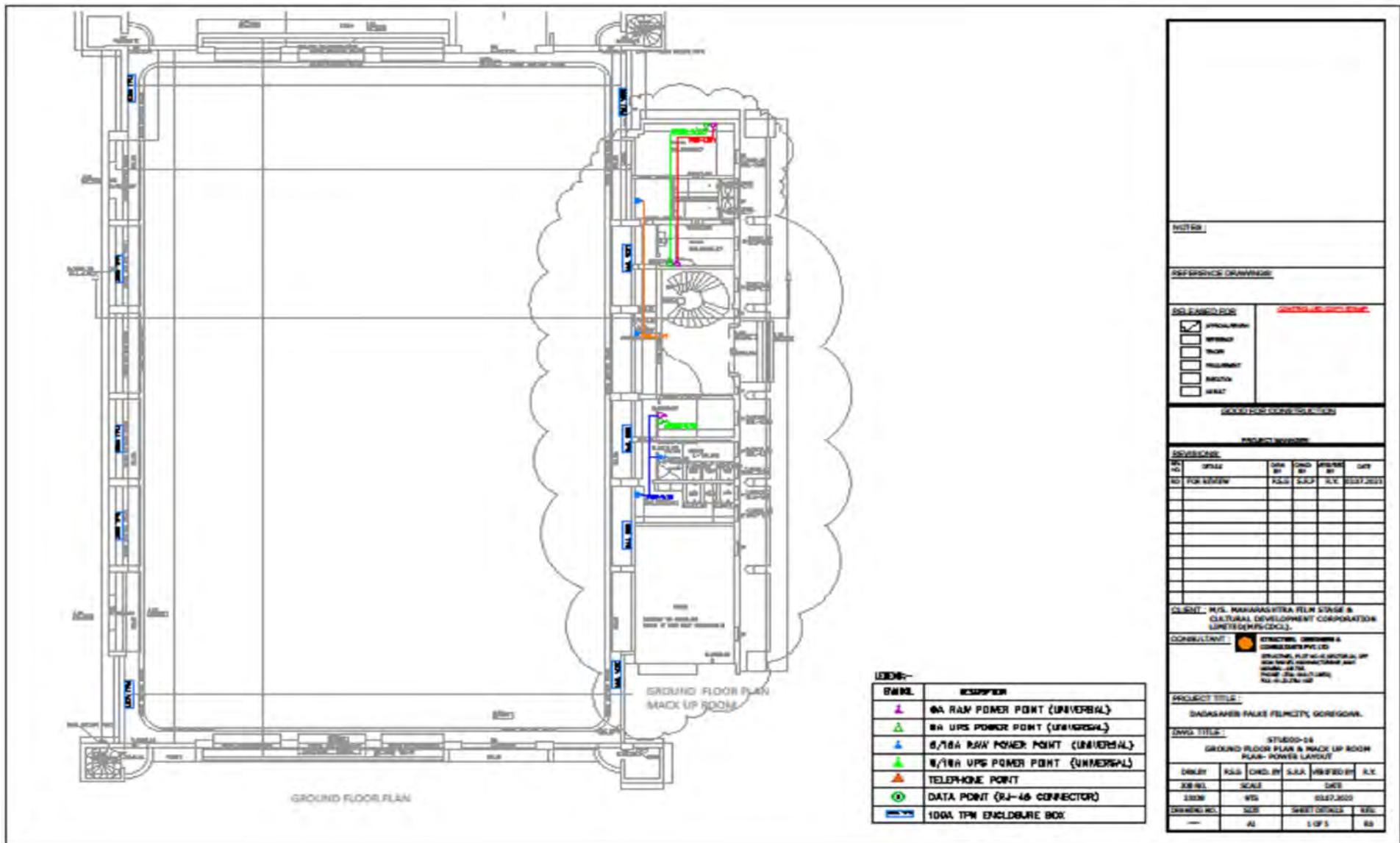


NOTES:	
REFERENCE DRAWINGS:	
RELEASED FOR: ☒ APPROVED ☐ CORRECTION ☐ REVISION ☐ IN HAND	CONTROLLER/ENGINEER:
WORKSHEET CHARACTERISTICS	
PROJECT NUMBER:	
DEVELOPER: DR. RAJESH K. SHIRUR RD. FOR RENTON P.O. BOX 1000 P.O. BOX 1000 P.O. BOX 1000	DR. RAJESH K. SHIRUR RD. FOR RENTON P.O. BOX 1000 P.O. BOX 1000 P.O. BOX 1000
CLIENT: PLS. MAHARASHTRA FILM SANGE & CULTURAL DEVELOPMENT CORPORATION LIMITED(MFSCDCCL)	
CONSULTANT: STRUCTURAL DESIGNERS PVT. LTD. STRUCTURAL, PLUMBING & ELECTRICAL, CIVIL & MECHANICAL ENGINEERING, ROOF WORKS, AIR-TO-ROOF, THE ROOF WORKS, P.O. BOX 1000	
PROJECT TITLE:	
DADASAHEB FALKE FILMCITY, GOREGAON.	
DWG. TITLE:	
STUDIO-07 ROOF TOP SOLAR LAYOUT	
DRN.BY: R.S.G. JOB NO.: 1000 DATE: 15.07.2023 DRAWING NO.: 1000	DRN.BY: S.K.A. SCALE: 1:100 SHEET NO.: 1000 3 OF 6

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

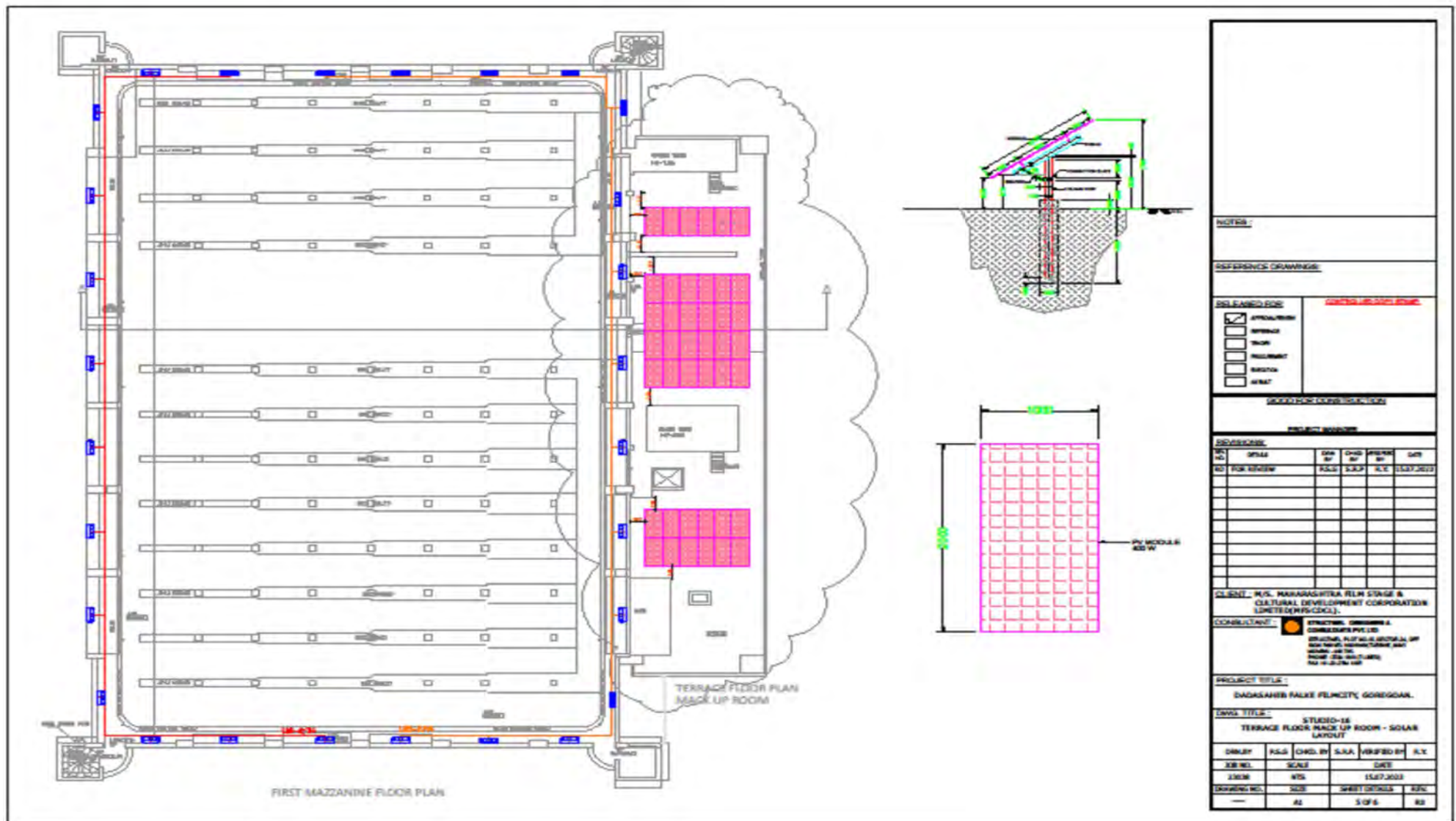


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REFERENCE DRAWINGS									
RELEASED FOR: [Signature]									
☒ APPROVED ☐ REVISION ☐ TOLERANCE ☐ MATERIAL ☐ METHOD									
PROJECT INFORMATION PROJECT NO.: PROJECT NAME:									
REVISIONS <table border="1"> <thead> <tr> <th>NO.</th> <th>DATE</th> <th>BY</th> <th>REASON</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>2023.05.01</td> <td>...</td> <td>...</td> </tr> </tbody> </table>		NO.	DATE	BY	REASON	1	2023.05.01	...	...
NO.	DATE	BY	REASON						
1	2023.05.01	...	...						
CLIENT: M/S. MAHARASHTRA FILM STORE & CULTURAL DEVELOPMENT CORPORATION LIMITED (M/S. MAHARASHTRA FILM STORE & CULTURAL DEVELOPMENT CORPORATION LIMITED)									
CONSULTANT: STRUCTURAL ENGINEERS & CONSULTANTS PVT. LTD. (PRACTICE, PLOT NO. 10, INDUSTRIAL AREA, SECTOR 10, GATE NO. 1, PUNE - 411 004, INDIA)									
PROJECT TITLE: SADASHIV PRADEEP FILM CITY, GOREGAON.									
DRAWING TITLE: STUDIO-04 GROUND FLOOR PLAN & MAKE UP ROOM PLAN- POWER LAYOUT									
DESIGNED BY: R.S. CHECKED BY: S.S. DATE: 2023.05.01	DRAWN BY: R.S. CHECKED BY: S.S. DATE: 2023.05.01								
SHEET NO.: 01 OF 01	SHEET TOTAL: 01 OF 01								

CONTRACTOR

NO. OF CORRECTIONS

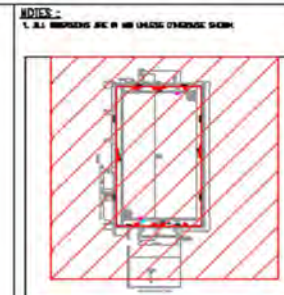
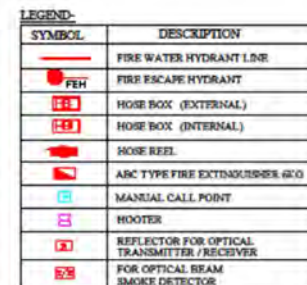
DEPUTY ENGINEER (CIVIL)



CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)



REFERENCE FRAMINGS:

RELEASED FBI

CONTROLLED COPY STAMP

☐	APPROVAL
☐	REVISION
☐	DISAPPROVAL
☒	TIMEOUT
☐	ENTRY/EXIT
☐	AS IS

EDCO FOR CONSTRUCTION

PROJECT MANAGER

REMARKS:

[illegible]

ARCHITECT

CLIENT: FILM CITY DADASAHEB PHALKE
CHITRANAGRI, GOREGAON (EAST).

CONSULTANT :  **STRUCTURAL DESIGNERS
& CONSULTANTS PVT. LTD.**
STRUCTURAL, PLOT NO-14, SECTOR-24,
GT BOW PALM HOUSING, PUNE
PUNJAB - 400 706
PHONE : 2334 1994 (2 LINES)
FAX : 01-233-2234 1987

PROJECT TIME

STUDIO NO-1

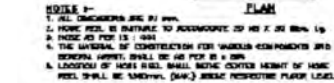
PAS. TITLE :

FIRE FIGHTING SYSTEM LAYOUT

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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OWNER	FILE	CHG. BY	DATE	MODIFIED BY	R
JOB NO.	SCALE: 1/8"=1'-0"	DATE			
ISSUED	DATE: 02/01/2023	02/01/2023			
DRAWING NO.			SHEET DETAILS		R
WEP-IT-0001			1 OF 1		R

DEPUTY ENGINEER (CIVIL)



LEGEND	
SYMBOL	DESCRIPTION
	FIRE WATER HYDRANT LINE
	FIRE ESCAPE HYDRANT
	HOSE BOX (EXTERNAL)
	HOSE BOX (INTERNAL)
	HOSE REEL
	ABC TYPE FIRE EXTINGUISHER 6K
	MANUAL CALL POINT
	HOOTER
	REFLECTOR FOR OPTICAL TRANSMITTER / RECEIVER
	REFLECTOR FOR OPTICAL BEAM SMOKE DETECTOR

RELEASED FILE	
☐	APPENDIX/INDEX
☐	REFERENCE
☐	DISCUSSION
☒	TURKEY
☐	ENCLOSURE
☐	AS BULK

GOOD FOR CONSTRUCTION
PROJECT MANAGER

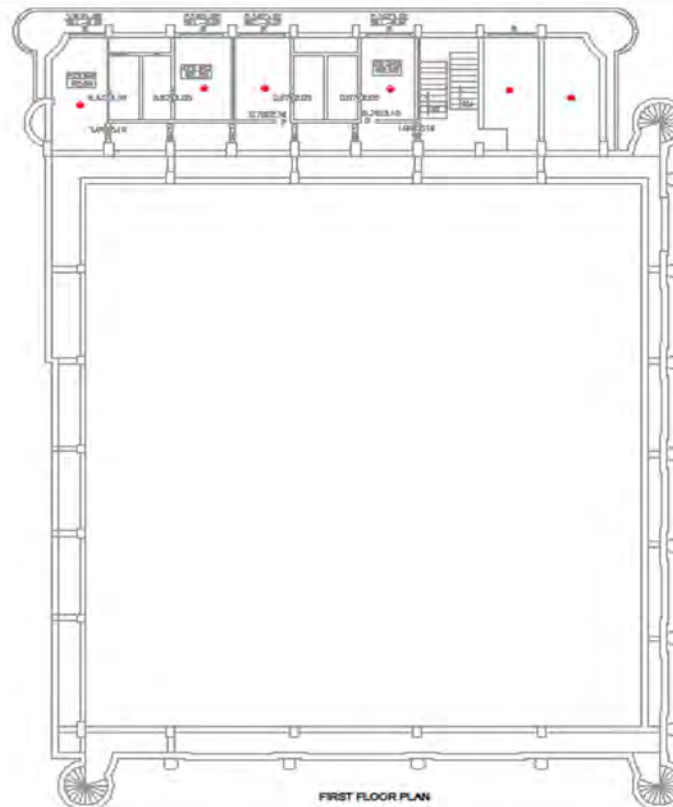
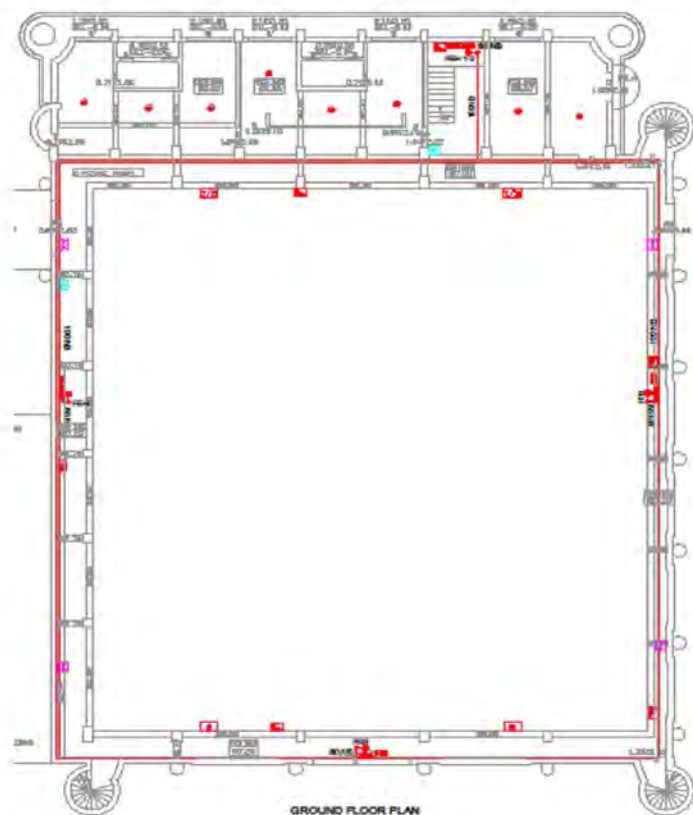
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CREDIT: FILM CITY DADASAHEB PHALKE
CHITRANAAGRI, GOREGAON (EAST).

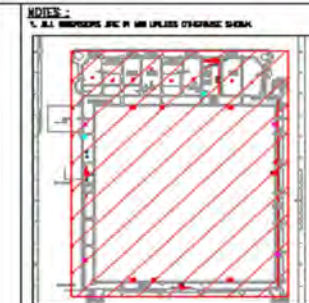
CONSULTANT:  **STRUCTURAL DESIGNERS
& CONSULTANTS PVT. LTD.**
STRUCTURAL, PLOT NO-16, SECTOR-24,
GIFT ROAD, FARIDABAD, HARYANA,
INDIA. 110015 - 401 706
PHONE : 22344 1194 (2 LINES)
FAX : 81-223-2234 (107)

PROJECT TITLE : STUDIO NO-2

DRAW. TITLE :					
FIRE FIGHTING SYSTEM LAYOUT					
DRAWN BY	H.M	CHECKED BY	U.N	DESIGNED BY	R.K
JOB NO.	SCALE : NTS		DATE		
SUBJOB	SIZE : 02		26.08.2023		
DYNAMIC NO.			SHEET DETAILS		REV
MFP-FF-0001		1 OF 1		RD	



SYMBOL	DESCRIPTION
	FIRE WATER HYDRANT LINE
	FIRE ESCAPE HYDRANT
	HOSE BOX (EXTERNAL)
	HOSE BOX (INTERNAL)
	HOSE REEL
	ABC TYPE FIRE EXTINGUISHER 6KG
	MANUAL CALL POINT
	HOOTER
	REFLECTOR FOR OPTICAL TRANSMITTER / RECEIVER
	FOR OPTICAL BEAM SMOKE DETECTOR
	SMOKE DETECTOR



REFERENCE DRAWINGS:

RELEASED FOR

☐	APPROVAL / REVIEW
☐	PROVISION
☒	TENDER
☐	CONSTRUCTION
☐	AS BUILT

CONTROLLED COPY STAMP

GOOD FOR CONSTRUCTION

PROJECT MANAGER

REVISIONS

REV. NO.	DETAIL	DATE	BY	CHKD. BY	APPROVED BY	DATE
01	FOR TENDER	1.11.18	RM	RM	R.E.	28.10.2023

ARCHITECT :

CLIENT : PUNJ CITY DADASAHEB PHALKE
CHITRAMAGRI, COOREGAON (EAST).

CONSULTANT : STRUCTURAL DESIGNERS & CONSULTANTS PVT. LTD.
PUNJ CITY, PLOT NO-15, BHESTER-24,
OFF. BANGALU, HOBBY/STATION,
TUMAKURU - 562 025,
KARNATAKA - 562 025
PHONE : 98441 1991 (2 LINES)
FAX : 91-98-9234 1387

PROJECT TITLE :

STUDIO NO-5

DWG. TITLE :

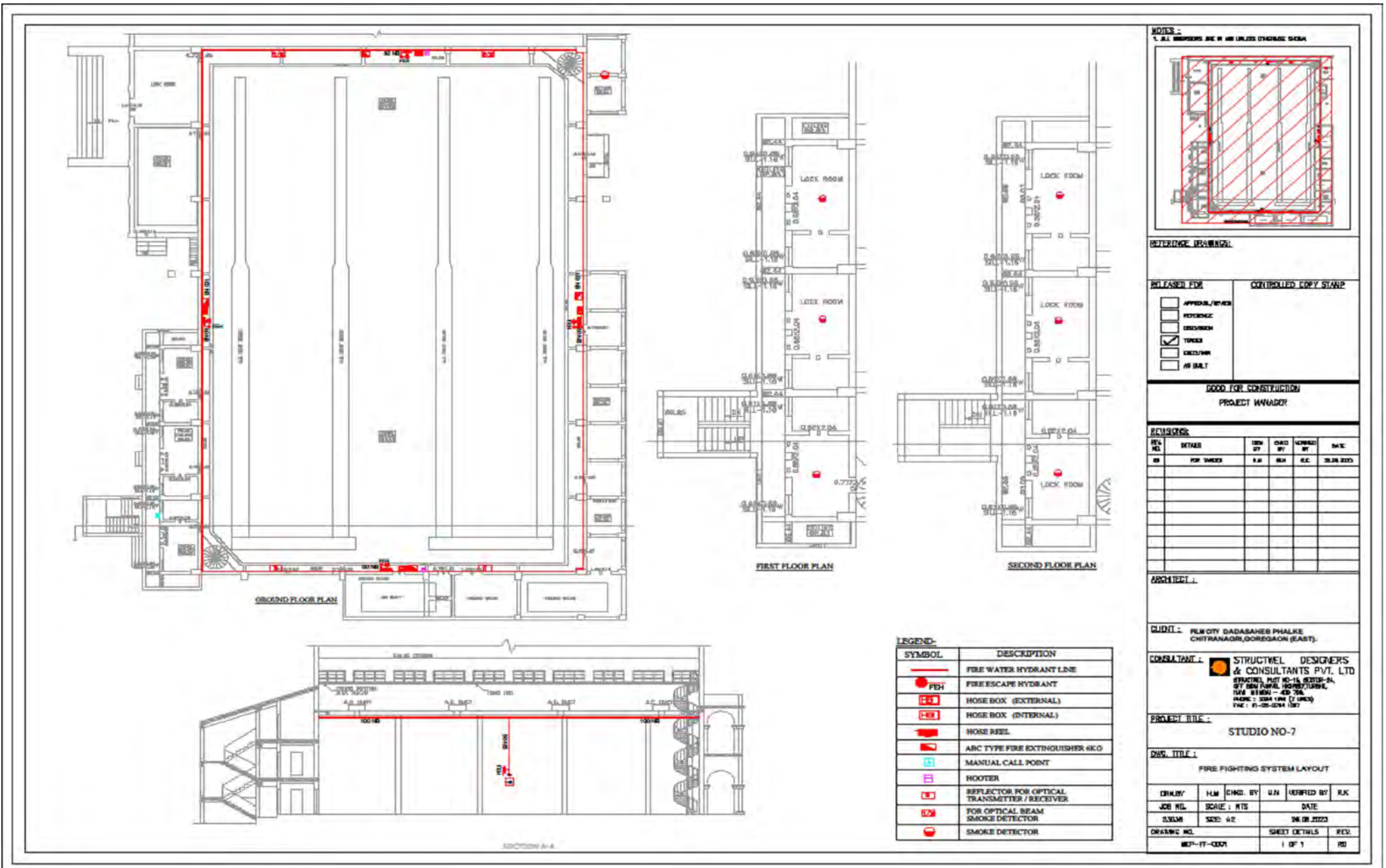
FIRE FIGHTING SYSTEM LAYOUT

DATE	FILED	CHKD. BY	DATE	CHKD. BY	DATE
01.11.18	SCALE : 1:10	DATE	01.11.18	DATE	01.11.18
01.11.18	SCALE : 1:10	DATE	01.11.18	DATE	01.11.18
01.11.18	SCALE : 1:10	DATE	01.11.18	DATE	01.11.18

CONTRACTOR

NO. OF CORRECTIONS

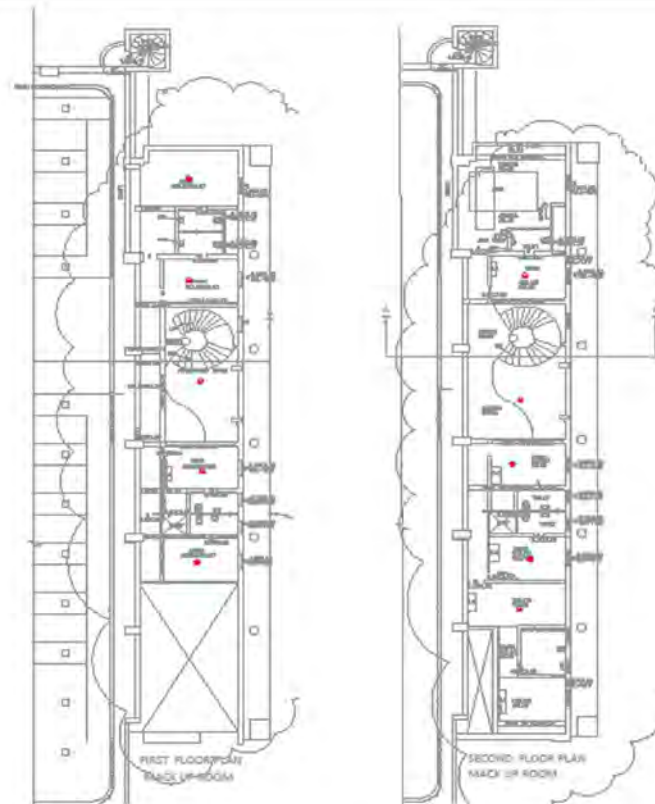
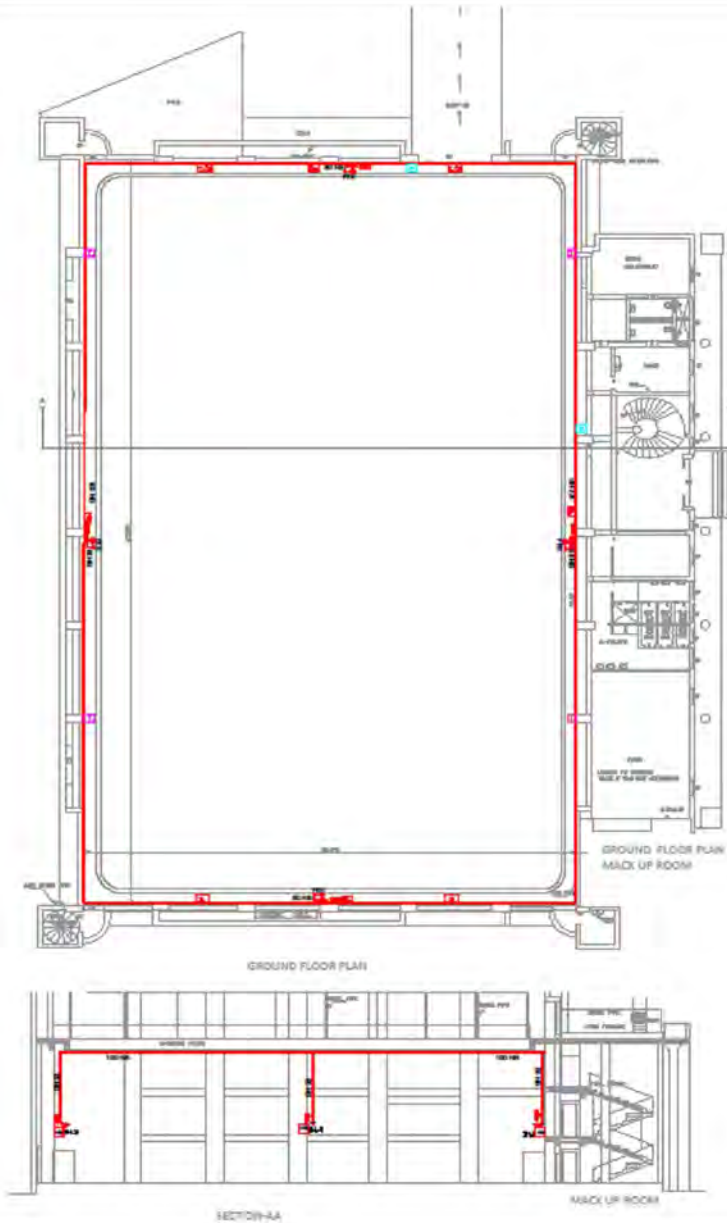
DEPUTY ENGINEER (CIVIL)



CONTRACTOR

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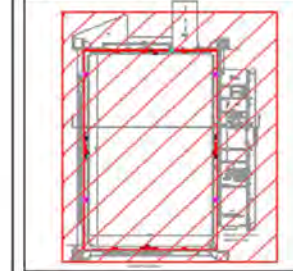
DEPUTY ENGINEER (CIVIL)



LEGEND-

SYMBOL	DESCRIPTION
	FIRE WATER HYDRANT LINE
	FIRE ESCAPE HYDRANT
	HOSE BOX (EXTERNAL)
	HOSE BOX (INTERNAL)
	HOSE REEL
	ABC TYPE FIRE EXTINGUISHER 6KG
	MANUAL CALL POINT
	HOOTER
	REFLECTOR FOR OPTICAL TRANSMITTER / RECEIVER
	FOR OPTICAL BEAM SMOKE DETECTOR
	SMOKE DETECTOR

NOTES:-
1. ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE SHOWN



REFERENCE DRAWINGS:

RELEASED FOR:

- ☐ APPROVAL / REVIEW
- ☐ REFERENCE
- ☐ DESIGN
- ☒ TYPING
- ☐ CHECKING
- ☐ AS BUILT

CONTROLLED COPY STAMP

GOOD FOR CONSTRUCTION
PROJECT MANAGER

REVISIONS

REV	DETAIL	DATE	BY	CHKD BY	DATE
01	FOR CHECK	1.8	SK	E.K.	04.07.2022

ARCHITECT

CLIENT:-
FILM CITY DADASAHEB PHALKE
CHITRAHAR, DOREGAON (EAST).

CONSULTANT:-
 STRUCTURAL DESIGNERS & CONSULTANTS PVT. LTD.
STRUCTURAL, PLT NO-16, SECTOR-24,
GT ROY PURAM HOBBOLUR,
TAMIL NADU - 600 096.
PHONE : 0844 096 17 0903
FAX : 81-02-0294 1087

PROJECT TITLE:-
STUDIO NO-16

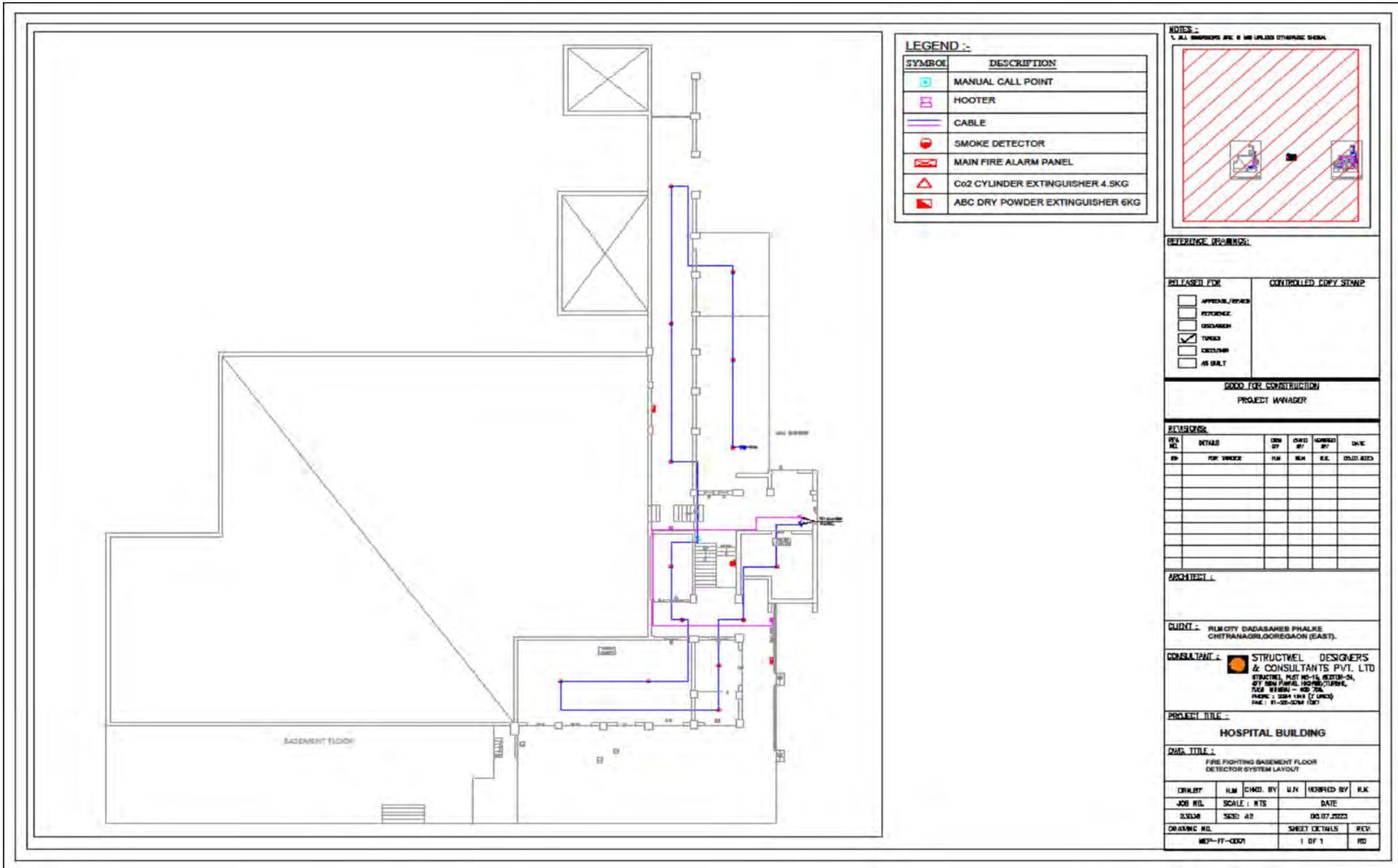
DWG. TITLE:-
FIRE FIGHTING GROUND FLOOR
HYDRANT SYSTEM LAYOUT

DRAWN BY	PLM	CHKD BY	U.N	CHECKED BY	DATE
JOB NO.	SCALE: 1/15	DATE	04.07.2022	REV	1 OF 1
DRAWING NO.	SHEET DETAILS	REV	1 OF 1	REV	1 OF 1

CONTRACTOR

NO. OF CORRECTIONS

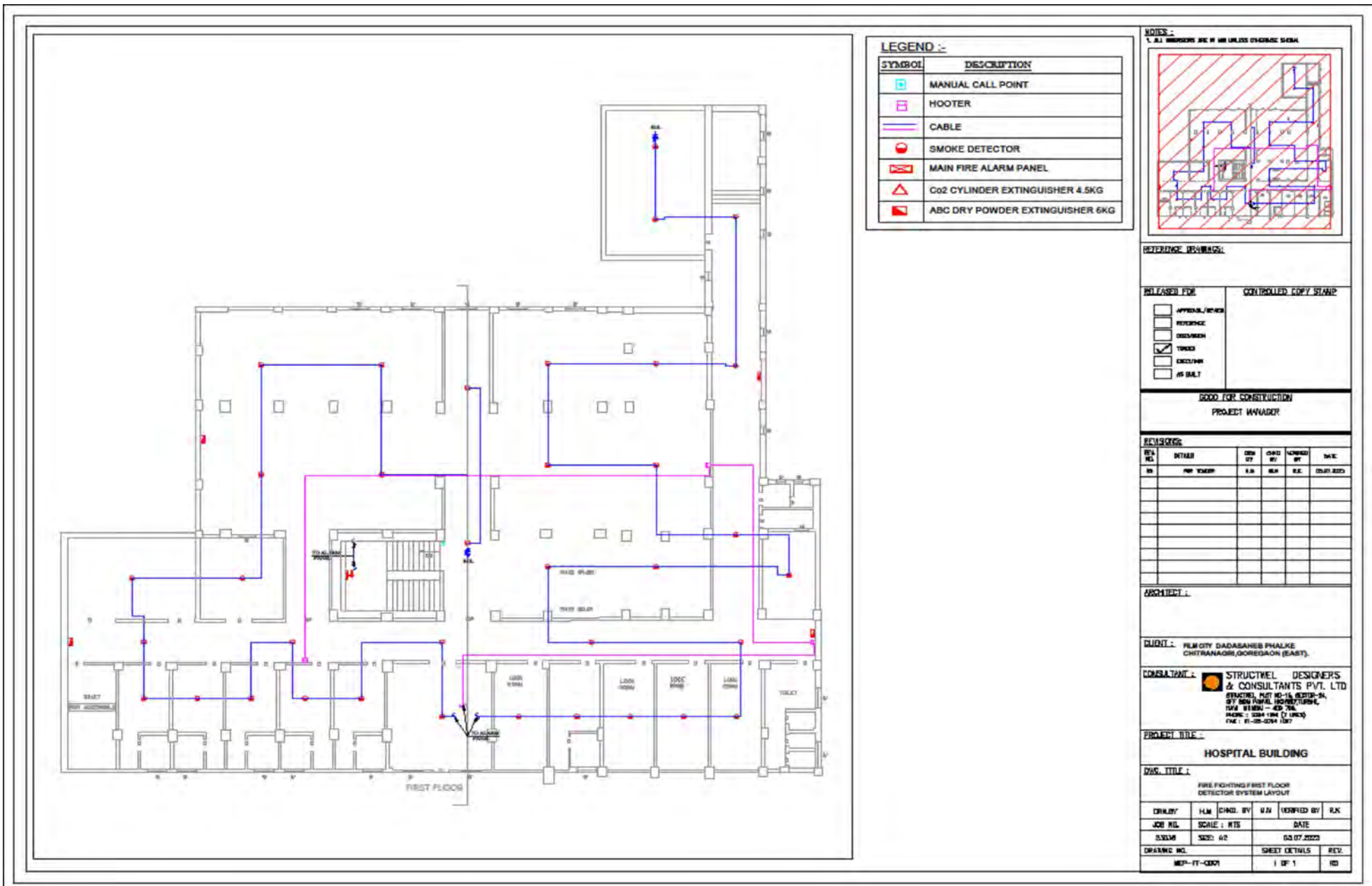
DEPUTY ENGINEER (CIVIL)



CONTRACTOR

NO. OF CORRECTIONS

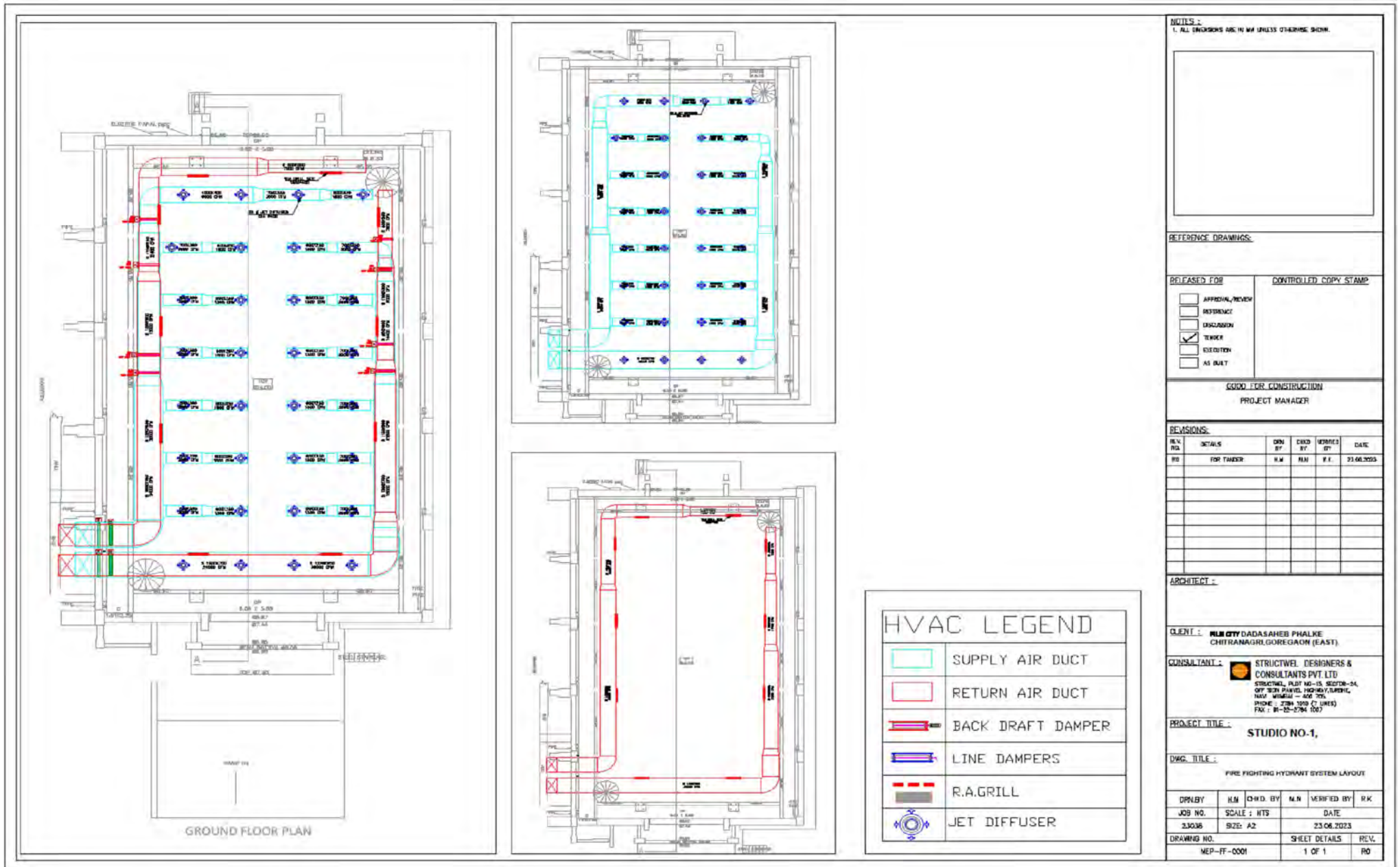
DEPUTY ENGINEER (CIVIL)



CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)



CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)

GROUND FLOOR PLAN

NO. OF CORRECTIONS

HVAC LEGEND

- SUPPLY AIR DUCT
- RETURN AIR DUCT
- BACK DRAFT DAMPER
- LINE DAMPERS
- R.A. GRILL
- JET DIFFUSER

NOTES :
1. ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE SHOWN

REFERENCE DRAWINGS:

RELEASED FOR:
☐ APPROVAL/REVIEW
☐ REFERENCE
☐ DISCUSSION
☒ TENDER
☐ EXECUTION
☐ AS BUILT

CONTROLLED COPY STAMP

GOOD FOR CONSTRUCTION
PROJECT MANAGER

REVISIONS:

REV. NO.	DETAILS	OWN. BY	CHKD. BY	VERIFIED BY	DATE
01	FOR TENDER	H.M.	A.D.	A.P.	01.09.2023

ARCHITECT :

CLIENT : PUNJ CITY DADASAHEB PHALKE CHITRANAGRI, GOREGAON (EAST).

CONSULTANT : STRUCTWEL DESIGNERS & CONSULTANTS PVT. LTD.
 STRUCTURAL, PLOT NO-15, SECTOR-34, GIFT SOCI PARK, HIGHWAY, PUNE-411 004.
 TEL: 020-2784 1000 FAX: 020-2784 1001

PROJECT TITLE : STUDIO NO. 2,

DWG. TITLE : HVAC LAYOUT

DRWN. BY	H.M.	CHKD. BY	A.D.	VERIFIED BY	A.P.
JOB NO.	SCALE : HTS		DATE		
230308	SIZE : A2		01.09.2023		
DRAWING NO.	SHEET DETAILS		REV.		
MEP-FE-0001	1 OF 1		RD		

CONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)



REFERENCE DRAWINGS

CONTROLLED COPY STAMP

GOOD FOR CONSTRUCTION

PROJECT MANAGER

REVISIONS:

CLIENT :	M/S. MAHARASHTRA FILM STAGE & CULTURAL DEVELOPMENT CORPORATION LIMITED(MFSCDCL).
----------	--

CONSULTANT :  **STRUCTWEL DESIGNERS & CONSULTANTS PVT. LTD.**
STRUCTWEL, PLOT NO-15, SECTOR-24, OFF
ICEPARK, MIDC, HIGHWAY, TURBHE, NAWI
MUMBAI - 400775
PHONE : 2756 1015 (7 LINES)
FAX : 89-22-2756 5007

PROJECT TITLE :

DADASAHEB FALKE FILMCITY, GOREGOAN.

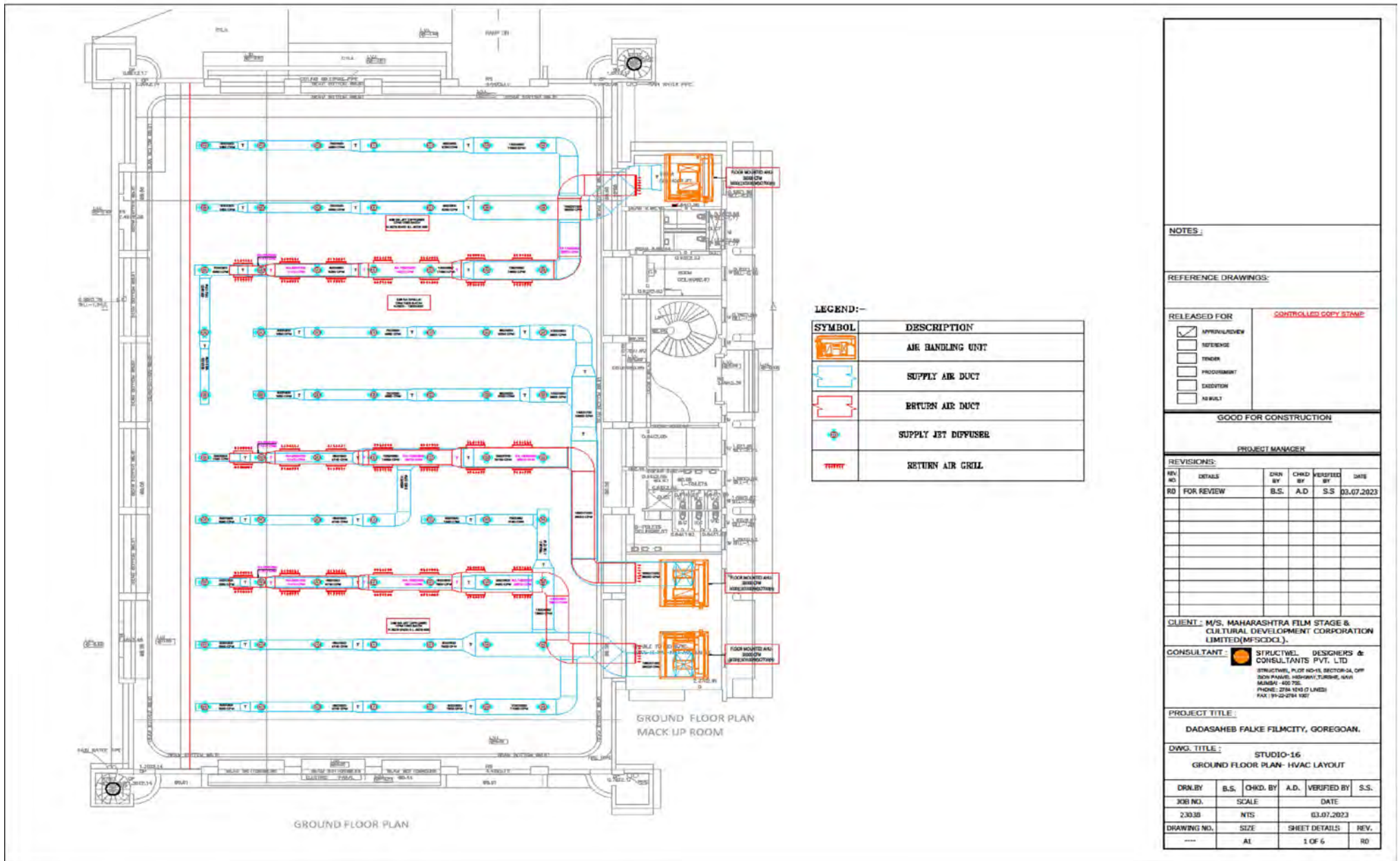
DWG. TITLE :

STUDIO-05
FLOOR - HVAC LAYOUT

DRN.BY	J.S	CHKD. BY	A.D.	VERIFIED BY	A.P.
JOB NO.	SCALE		DATE		
23038	NTS		02.09.2023		
DRAWING NO.	SIZE		SHEET DETAILS		REV.
---	A1		1 OF 2		R0

	SUPPLY AIR DUCT
	RETURN AIR DUCT
	BACK DRAFT DAMPER
	LINE DAMPERS
	R.A.GRILL
	JET DIFFUSER

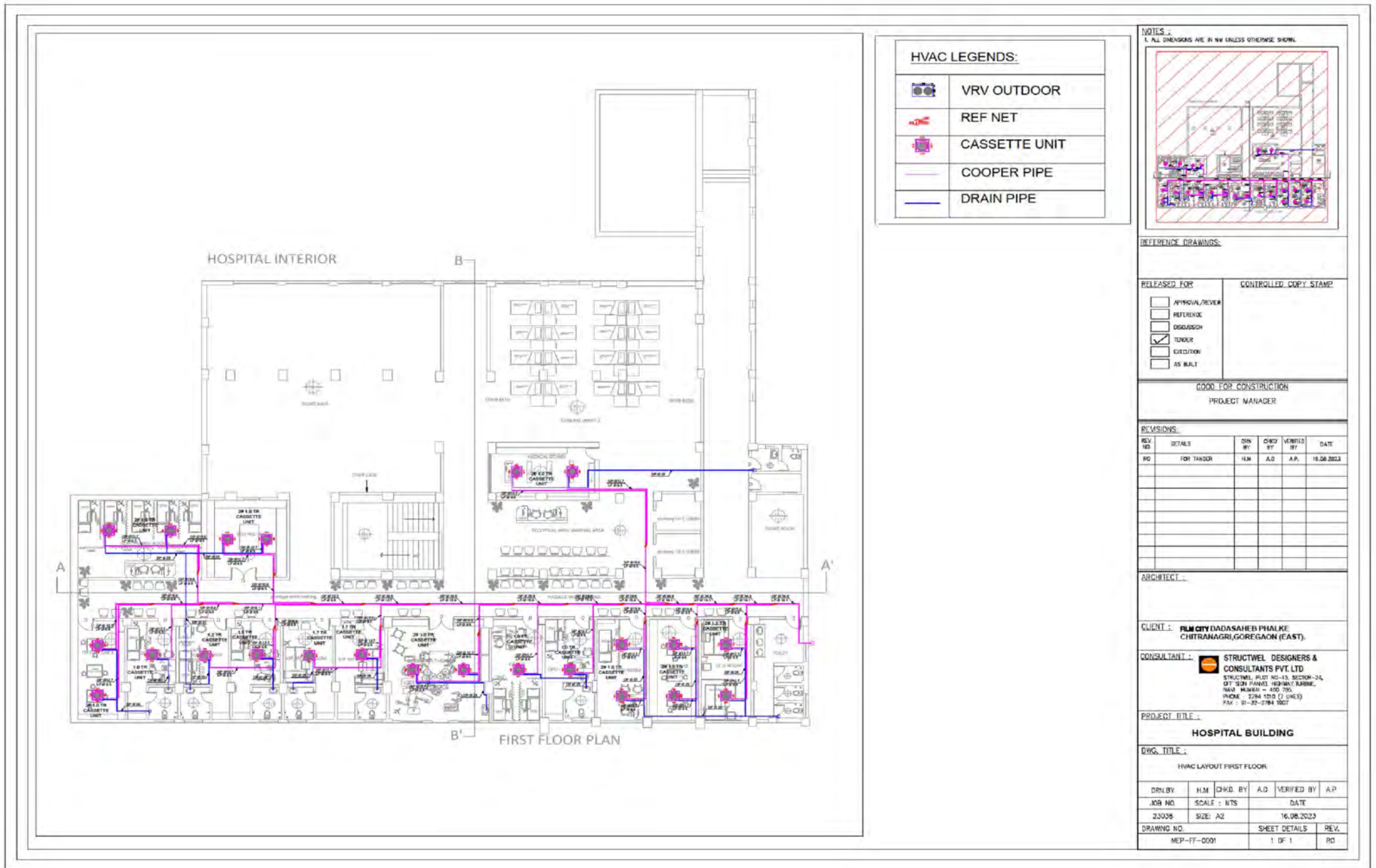
DEPUTY ENGINEER (CIVIL)



ONTRACTOR

NO. OF CORRECTIONS

DEPUTY ENGINEER (CIVIL)



			Name of Client -MAHARASHTRA FLIM ,STAGE AND CULTURAL DEVELOPMENT CORPORATION LIMITED									
		Proposed Repair and upgradation of studio 1,2,5,7,16 & Hospital at Goregaon Filmcity.										
Sr.No.		ITEM	Studio 1,2& Hospital	Studio 5	Studio 7	Studio 16	Total Qty	Rate	Per	Amount (INR)		
ITEM No.1	ITEM No.1	Removing brick bat coba including stacking the spoils as directed with all leads, lifts etc, complete.	0.00	0.00	0.00	0.00	0.00	664.65	Sqm	-		
		SSR Item No. : 46.14										
ITEM No.2	SSR 22-23 / Item No.	Removing doors and windows with frames and stacking the materials as directed with all leads, lifts etc. complete.	53.00	0.00	0.00	0.00	53.00	163.80	No.	8,681.40		
		SSR Item No. : 46.15										
ITEM No.3	SSR 22-23 / Item No.	Removing ventilators and small windows with frame and stacking the materials with all leads, lifts etc. complete.	35.00	0.00	0.00	0.00	35.00	138.60	No.	4,851.00		
		SSR Item No. : 46.16										
ITEM No.4	SSR 22-23 / Item No. 46.19 / Pg	Removing cement tiles, or marble or polished shahabad floor or dado without bed concrete including stacking the materials as directed with all leads, lifts etc. complete	2660.00	0.00	0.00	431.43	3091.43	47.25	Sqm	1,46,069.84		
		SSR Item No. : 46.19										
ITEM No.5	SSR 22-23 / Item No.	Removing earthen, stonewate pipe and stacking them as directed with all leads, lifts etc. complete.	0.00	0.00	0.00	0.00	0.00	23.10	RMT	-		
		SSR Item No. : 46.27										
ITEM No.6	SSR 22-23 / Item No.	Removing cast iron or wrought iron or A.C. pipe and stacking them as directed with all leads, lifts etc. complete.	0.00	0.00	0.00	0.00	0.00	23.10	RMT	-		
		SSR Item No. : 46.28										
ITEM No.7	SSR 22-23 / Item No. 46.29 / Pg 297	Dismantling the R.C.C. Work 1:2:4 and sorting out the materials such as steel etc. as directed and stacking them within the specified lead as directed etc. complete.	30.00	0.00	0.00	0.00	30.00	1523.55	Cum	45,706.50		
		SSR Item No. : 46.29										
ITEM No.8	SSR 22-23 / Item No. 46.40 / Pg 298	Removing urinal pans or wash hand basins with frame including disconnecting the sanitary and water supply connections, removing the same carefully and stacking the serviceable materials as and where directed including throwing the unserviceable materials outside etc complete	17.00	0.00	0.00	0.00	17.00	100.80	No	1,713.60		
		SSR Item No. : 46.40										
ITEM No.9	SSR 22-23 / Item No. 46.41 / Pg 298	Removing W.C. pans including disconnecting the sanitary and water supply connections, removing and breaking flooring and bed con-crete around pan removing the same carefully and stacking the serviceable materials as adn where directed including throwing the unserviceable materials out side etc. carefully and throwing out the refusal outside etc. complete.	13.00	0.00	0.00	0.00	13.00	217.35	No	2,825.55		
		SSR Item No. : 46.41										
ITEM No.10	SSR 22-23 / Item No. 46.53 / Pg	Removing chokes and leakages from down take G.I/CI/PVC pipe line on walls floor level by using zoola / scaffolding and rectify the same for functioning with all lifts etc. complete.	0.00	0.00	0.00	0.00	0.00	328.65	No	-		
		SSR Item No. : 46.53										
ITEM No.11	SSR 22-23 / Item No. 46.54 / Pg 300	Manually clearing the chokes from under ground drainage line including Inspection chambers with the help of required tools for propre functioning line chamber to chamber etc. complete.	0.00	0.00	0.00	0.00	0.00	51.45	No	-		
		SSR Item No. : 46.54										
ITEM No.12	SSR 22-23 / Item No. 46.55 / Pg 300	Manually clearing by removeing the chokes from Nahni Trap, Gully Trap, Wash basin unit, Sink and WC with the help of required tools for proper functioning the same etc. complete.	0.00	0.00	0.00	0.00	0.00	195.30	No	-		
		SSR Item No. : 46.55										
	SSR 22-23 / Item No. 46.59 / Pg 301	Lowering down the debris obtained from breaking and removing the cement plaster / burnt brick masonry of the first floor by any means without causing dust nuisance and damage to structure, stacking the same as and where directed including cleaning the site complete.	0.00	0.00	0.00	0.00	0.00	789.60	Cum	-		

[illegible]

			Name of Client -MAHARASHTRA FLIM ,STAGE AND CULTURAL DEVELOPMENT CORPORATION LIMITED									
			Proposed Repair and upgradation of studio 1,2,5,7,16 & Hospital at Goregaon Filmcity.									
Sr.No.		ITEM	Studio 1,2& Hospital	Studio 5	Studio 7	Studio 16	Total Qty	Rate	Per	Amount (INR)		
	SSR 22-23 / Item No. 21.02 / Pg 153	Excavation for foundation in earth, soil of all types, sand, gravel and soft muRmt, including removing the excavated material up to a distance of 50 m. beyond the building area and stacking and spreading as directed, dewatering, preparing the bed for the foundation and necessary back filling, ramming, watering including shoring and strutting etc. complete. (Lift upto 1.5 m.) By Mechanical Means	296.00	490.90	511.06	524.00	1821.95	217.35	Cum	3,96,001.27		
ITEM No.26		SSR Item No. : 21.02										
	SSR 22-23 / Item No. 21.04 / Pg 153	Excavation for foundation in earth, soil of all types, sand, gravel and soft muRmt, including removing the excavated material up to a distance of 50 m. beyond the building area and stacking and spreading as directed, dewatering, preparing the bed for the foundation and necessary back filling, ramming, watering including shoring and strutting etc. complete. (Lift 1.5 m to 3.0 m.) By Mechanical Means	296.00	490.90	511.06	524.00	1821.95	270.90	Cum	4,93,566.80		
ITEM No.27		SSR 22-23 / Item No. 21.04										
	SSR 22-23 / Item No. 21.03 / Pg 153 [Bd.A.1 Page No. 259]	Excavation for foundation in earth, soil of all types, sand, gravel and soft muRmt, including removing the excavated material up to a distance of 50 m. beyond the building area and stacking and spreading as directed, dewatering, preparing the bed for the foundation and necessary back filling, ramming, watering including shoring and strutting etc.(Lift from 3 to 4.5m) complete.	0.00	108.00	112.43	0.00	220.43	325.08	Cum	71,657.20		
ITEM No.28		SSR Item No : 21.04										
	SSR 22-23 / Item No. 21.03 / Pg 153	Excavation for foundation in earth, soil of all types, sand, gravel and soft muRmt, including removing the excavated material up to a distance of 50 m. beyond the building area and stacking and spreading as directed, dewatering, preparing the bed for the foundation and necessary back filling, ramming, watering including shoring and strutting etc.(Lift from 3 to 4.5m) complete.	0.00	0.00	0.00	116.00	116.00	412.02	Cum	47,794.32		
ITEM No.29		SSR Item No : 21.04										
	SSR 22-23 / Item No. 21.03 / Pg 153	Excavation for foundation in earth, soil of all types, sand, gravel and soft muRmt, including removing the excavated material up to a distance of 50 m. beyond the building area and stacking and spreading as directed, dewatering, preparing the bed for the foundation and necessary back filling, ramming, watering including shoring and strutting etc. complete. (Lift 3.0 m. to 4.5 m) By Mechanical Means	65.00	0.00	0.00	0.00	65.00	343.35	Cum	22,317.75		
ITEM No.30	Rate=Basic	SSR 22-23 / Item No. 21.03										
	SSR 22-23 / Item No. 21.38 / Pg	Providing dry/trap/granite/quartzite/gneiss rubble stone soling 15 cm to 20 cm thick including handpacking and compacting etc.complete.	18.00	39.43	0.00	42.00	99.43	1451.10	Cum	1,44,279.27		
ITEM No.31		SSR Item No. : 21.38										
	SSR 22-23 / Item No. 21.38 / Pg	Providing dry/trap/granite/quartzite/gneiss rubble stone soling 15 cm to 20 cm thick including handpacking and compacting etc.complete.	0.00	0.00	41.05	0.00	41.05	1817.49	Cum	74,601.95		
ITEM No.32		SSR Item No : 21.38										
3		CONCRETE WORK										
	SSR 22-23 / Item No. 24.04 / Pg 175	Providing and laying Cast in situ/Ready Mix cement concrete in M15 of trap/ granite/quartzite/gneiss metal for foundation and bedding / steps including steel centering, formwork, laying/pumping, compacting, roughening them if special finish is to be provided, finishing uneven and honeycombed surface and curing etc. complete. The Cement Mortar 1:3 plaster is considered for rendering uneven and honeycombed surface, only. Newly laid concrete shall be covered by gunny bag, plastic, tarpaulin etc. (Wooden centering will not be allowed.),with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)	8.00	0.00	17.85	19.00	44.85	7417.28	Cum	3,32,638.29		
ITEM No.33		SSR 22-23 / Item No. 24.04 / Pg 175										

			Name of Client -MAHARASHTRA FLIM ,STAGE AND CULTURAL DEVELOPMENT CORPORATION LIMITED							
		Proposed Repair and upgardation of studio 1,2,5,7,16 & Hospital at Goregaon Filmcity.								
Sr.No.		ITEM	Studio 1,2& Hospital	Studio 5	Studio 7	Studio 16	Total Qty	Rate	Per	Amount (INR)
	SSR 22-23 / Item No. 24.04 / Pg 175	Providing and laying Cast in situ / Ready Mix cement concrete in M15 of trap / granite / quartzite / gneiss metal for steps including steel centering, formwork, laying / pumping, compacting, roughening them if special finish is to be provided, finishing uneven and honey combed surface and curing etc. complete. The Cement Mortar 1:3 plaster is considered for rendering uneven and honey combed surface, only. Newly laid concrete shall be covered by gunny bag, plastic, tarpaulin etc.(Wooden centering will not be allowed.), with fully automatic microprocess or based PLC with SCADA enabled reversible DRmt Typemixer / concrete Batch mix plant (Panmixer) etc. complete. With fine aggregate (Natural Sand / Crushed sand VSI Grade finely washed etc)								
ITEM No.34		SSR Item No : 24.04	0.00	17.14	0.00	0.00	17.14	6676.95	Cum	1,14,458.95
	SSR 22-23 / Item No. 25.13 / Pg 178	Providing and laying Cast in situ/Ready Mix cement concrete M-25 of trap / granite/quartzite/ gneiss metal for R.C.C. work in foundations like raft, strip foundations, grillage and footings of R.C.C. columns and steel stanchions etc. including bailing out water, Steel centering, formwork ,cover blocks, laying/pumping, compaction and curing roughening the surface if special finish is to be provided (Excluding reinforcement and structural steel) etc. complete, with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)	43.00	91.12	95.90		230.02	8362.76	Cum	19,23,601.16
ITEM No.35		SSR 22-23 / Item No. 25.13 / Pg 178								
	SSR 22-23 / Item No. 25.13 / Pg 178	Providing and laying Cast in situ/Ready Mix cement concrete M-25 of trap / granite/quartzite/ gneiss metal for R.C.C. work in foundations like raft, strip foundations, grillage and footings of R.C.C. columns and steel stanchions etc. including bailing out water, Steel centering, formwork ,cover blocks, laying/pumping, compaction and curing roughening the surface if special finish is to be provided (Excluding reinforcement and structural steel) etc. complete, with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)	0.00	0.00	0.00	95.00	95.00	7651.35	Cum	7,26,878.25
ITEM No.36		SSR Item No. 25.13								
	SSR 22-23 / Item No. 26.33 / Pg 188	Providing and fixing in position TMT - FE - 500 bar reinforcement of various diameters for R.C.C. pile caps, footings, foundations, slabs, beams columns, canopies, staircase, newels, chajjas, lintels pardis, copings, fins, arches etc. as per detailed designs, drawings and schedules. including cutting, bending, hooking the bars, binding with wires or tack welding and supporting as required complete.	59.00	79.78	93.38	15.00	247.16	94188.15	MT	2,32,79,204.08
ITEM No.37		SSR 22-23 / Item No. 26.33 / Pg 188								
	SSR 22-23 / Item No. 51.146 / Pg 392	Providing and applying "high strength, non shrink free flow grout material" i. e. micro concrete (like shrink comp or equivalent) having compressive strength as 400 Kilogram/sq.cm. including finishing the surface and curing for 07 days. Etc complete. The usage of this non shrink concrete with zero slump is to allow to occupy every free space leaving no voids, thereby producing dense concrete with proper bonding with concrete (The quoted rates to be inclusive of all materials, labours, tools & tackles, transportation, taxes etc complete) to be applied for foundation and strengthening of pier etc and as per the direction of Site-In-Charge. (The product like Ultratech/Rendroc (RGL) of FOSROC or its equivalent)	1.00	0.40	0.43	1.00	2.83	70350.00	Cum	1,98,949.80
ITEM No.38		SSR 22-23 / Item No. 51.146								
4	PLASTERING AND PAINTING WORK									
	SSR 22-23 / Item No. 32.05 / Pg 205	Providing internal cement plaster 12mm thick in single coat in cement mortar 1:3 without neeru finish to concrete or brick surfaces, in all position including scaffolding and curing etc. complete.	0.00	0.00	0.00	0.00	0.00	317.12	Sqm	-
ITEM No.39		SSR Item No. : 32.05								
	SSR 22-23 / Item No. 31.06 / Pg 205	Providing waterproof plaster in W.C. and bath 12 mm thick for dado in cement mortar 1:3 with neat finishing, floating using waterproofing compound at the rate of 1 Kilogram. per bag of cement of approved make and manufacturer and curing etc. complete. (Excluding Tiles) (As directed by Engineer in Charge)	0.00	0.00	0.00	0.00	0.00	420.02	Sqm	-
ITEM No.40		SSR Item No. : 31.06								
	SSR 22-23 / Item No. 35.07 / Pg 223	Providing and applying two coats of synthetic enamel paint of approved colour to new /old structural steel work and wood work in buildings, including scaffolding if necessary, cleaning and preparing the surface (excluding primer coat) etc. complete.	0.00	0.00	0.00	0.00	0.00	100.80	Sqm	-
ITEM No.41		SSR Item No. : 35.07								

			Name of Client -MAHARASHTRA FLIM ,STAGE AND CULTURAL DEVELOPMENT CORPORATION LIMITED							
		Proposed Repair and upgradation of studio 1,2,5,7,16 & Hospital at Goregaon Filmcity.								
Sr.No.		ITEM	Studio 1,2& Hospital	Studio 5	Studio 7	Studio 16	Total Qty	Rate	Per	Amount (INR)
ITEM No.42	SSR 22-23 / Item No. 32.32 / Pg 211	Providing and applying Texture plaster with finishing with texture material of approved make in 3 to 4 millimeter thickness on previously plastered surface, including Plaster Groove 6mm thickness or Tape Grooves 35 to 45 mm thickness or as required, in all position including preparing the surface, scaffolding etc. complete.	896.00	0.00	0.00	1308.00	2204.00	659.40	Sqm	14,53,317.60
		SSR Item No. : 32.32								
ITEM No.43	SSR 22-23 / Item No. 32.34 / Pg 212	Providing and applying Two coats of wall care Putty on plastered surface and Ceiling and Walls to prepare surface even and smooth of approved make, etc complete. As directed by Engineer in charge	0.00	197.20	0.00	0.00	197.20	94.50	Sqm	18,635.40
		SSR Item No. : 32.34								
ITEM No.44	SSR 22-23 / Item No. 35.24 / Pg 225	Providing and applying two coats of textured synthetic paint of approved shade and quality and one coat of primer before applying textured paint including scaffolding if necessary preparing surface by thoroughly cleaning oil, grease, dirt and other materials as required, etc. complete.	0.00	0.00	0.00	0.00	0.00	171.15	Sqm	-
		SSR Item No. : 35.24								
ITEM No.45	SSR 22-23 / Item No. 35.25 / Pg 225	Providing and applying two coats of exterior acraylic emulsion paint confirming to corresponding I.S. of approved manufacture and of approved colour to the plastered surfaces including cleaning ,preparing the plaster surface, applying primer coat ,scaffolding if necessary, and watering the surface for two days etc complete.	0.00	0.00	0.00	0.00	0.00	274.05	Sqm	-
		SSR Item No. : 35.25								
ITEM No.46	SSR 22-23 / Item No. 35.21 / Pg 225	Providing and applying priming coat on concrete/ masonry/ Asbestos Cement plastered surfaces including scaffolding if necessary, preparing the surface by thoroughly cleaning oil, grease, dirt and other foreign matter and sand papering as required etc. complete.	6417.00	0.00	0.00	0.00	6417.00	37.80	Sqm	2,42,562.60
		SSR Item No. : 35.21								
ITEM No.47	SSR 22-23 / Item No. 36.12 / Pg	Providing and applying plastic emulsion paint of approved quality, colour and shade to old and new surfaces in two coats including scaffolding, preparing the surface. etc. complete.	6051.00	197.20	0.00	0.00	6248.20	84.00	Sqm	5,24,848.80
		SSR Item No. : 36.12								
ITEM No.48	SSR 22-23 / Item No. 50.79 / Pg 346	Providing and applying two coats Apex Ultima Puranature Anti-Pollution Or equivalent approved brand, paint should decomposes organic substances and inorganic gases(NOx, VOC's, CO, SOx, formaldehydes, etc.) in presence of natural or artificial light. It contains Graphene and nanoparticles of titanium oxide. and Absorbs CO2 (4.8 Kilogram/15 l). plaster crack should be filled by Acrylic base Crack seal/Textured Crack filler, Paint has to applied on one coat of Apex Ultima Puranature Anti-Pollution Primer or Equivalent. Warranty Should be given by the Manufaturer The work should be done by the Manufacturer Recommended applicator and he should be able to furnish stage wise onsite technical reports from the concerned company technologist.	896.00	569.79	645.22	0.00	2111.01	390.60	Sqm	8,24,561.11
		SSR Item No. : 50.79								
ITEM No.49	SSR 22-23 / Item No. 42.20 / Pg 376	Providing and fixing 450mm x 550mm size superior type Belgium mirror with 16mm dia. nickel plated towel rod etc. complete.	0.00	0.00	0.00	2.00	2.00	904.05	No	1,808.10
		SSR Item No : 42.20								
ITEM No.50		Providing and Laying hot applied thermoplastic road marking strip on Bituminous Surface of specified shade/ colour of 2.5 mm thick including 1.5 Refractive index reflectorizing glass beads @ 250gm/sqm .Thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC 35:2015. Initial Dry reflectivity RL shall be > 250 mcd/sqm/lux measured in the initial 7 days and sustained reflectivity RL of 100 mcd/sqm/ lux and Qd of 100 mcd/sqm/ lux measured at the end of 2 years by means of a Standard Reflectometer of Zehntner, Easylux, Delta make capable of measuring RL & QD both according to IRC 35:2015 clause 15.5. The finished surface to be level, uniform, and free from streaks and holes complete as per direction of Engineer-in-charge and in accordance with applicable specifications.(Refer MORTH Clause 803 for technical Specification and Performance for IRC 35:2015).	29.00	23.00	8.00	20.00	80.00	699.30	sqm	55,944.00
		SSR Item No : 6.12 a								
ITEM No.51		ITEM NO .09								
		Providing second class Burnt Brick masonry with conventional/ I.S. type bricks in cement mortar 1:6 in superstructure including striking joints, raking out joints, watering and scaffolding etc. Complete	0.00	25.88	12.71	14.92	53.51	10,027.16	CMT	5,36,555.84
		SSR 27.05 / 197								

		Name of Client -MAHARASHTRA FLIM ,STAGE AND CULTURAL DEVELOPMENT CORPORATION LIMITED									
		Proposed Repair and upgradation of studio 1,2,5,7,16 & Hospital at Goregaon Filmcity.									
Sr.No.		ITEM	Studio 1,2& Hospital	Studio 5	Studio 7	Studio 16	Total Qty	Rate	Per	Amount (INR)	
ITEM No.52		ITEM NO.10 Removing the existing cement plaster of any thickness without causing dust nuisance and stacking the debris upto a distance of 50 metres or spreading in the compound and cleaning the site etc. complete. SSR 32.33/211	0.00	738.62	503.73	1041.73	2284.08	54.60	SMT	1,24,710.80	
ITEM No.53		ITEM NO. 11 Providing internal cement plaster 12mm thick in single coat in cement mortar 1:4 without neeru finish to concrete or brick surfaces, in all positions including scaffolding and curing etc. complete. SSR 32.04 / 209	0.00	587.65	503.61	955.05	2046.31	305.40	SMT	6,24,942.16	
ITEM No.53A		ITEM NO :- 12 Providing sand faced plaster externally in cement mortar using approved screened sand, in all positions including base coat of 15 mm thick in cement mortar 1:4 using waterproofing compound at 1Kilogramper cement bag curing the same for not less than 2 days and keeping the surface of the base coat rough to receive the sand faced treatment 6 to 8 mm thick in cement mortar 1:4 finishing the surface by taking out grains and curing for fourteen days scaffolding etc.complete. SSR 32.11 / 209	0.00		9.30	0.00	9.30	700.64	SMT	6,515.95	
ITEM No.54		ITEM NO .12 Providing and applying plaster / wall punning with plaster of paris (with plaster of paris material of Ambuja / Mor Chap or equivalent make) in 10 to 13 millimeter thickness to previously plastered surface / or on newly brick surface (Excluding rough cast plaster) in all position including preparing and Finishing the surface scaffolding etc complete SSR 32.30/211	0.00	352.72	271.26	578.62	1202.60	600.60	SMT	7,22,280.66	
ITEM No.55		ITEM NO .13 Providing and applying priming coat on concrete/ masonry/ Asbestos Cement plastered surfaces including scaffolding if necessary, preparing the surface by thoroughly cleaning oil, grease, dirt and other foreign matter and sand papering as required etc. complete. SSR 35.21 / 225	0.00	647.90	396.36	851.98	1896.24	37.80	SMT	71,677.87	
ITEM No.56		ITEM NO. 14 Providing and applying plaster with plaster of paris in 6mm thickness to previously plaster surface in all position including preparing the surface scaffolding etc. complete. SSR 32.27/210	0.00	647.90	396.36	851.98	1896.24	151.20	SMT	2,86,711.49	
ITEM No.57		ITEM NO. 15 Providing and applying Royale Luxury Emulsion of approved make on internal wall surface as detailed below Scrapping for surface with emery paper and wipe clean for area. wall primer with brush by adding mineralturpentine oil by 8 to 10 % or water by 15 to 20% allowing to dry for 6 to 8 hoursAfter applying acrylic wall putty with appropriate prportion of water of allow to dry for period of 4 to 6 hours of activity. Scrapping with emery paper and wipe clean Applying paints Royale Luxury emulsion 1st coat with brush water content water 40 to 45% or 65 to 70% by role Applying paints Royale luxury emulsion 2nd coat with brush with water content 40 to 45% or 65 to 70 % by roller. (With prior approval of S.E.) SSR 36.21/229	0.00	443.63	278.76	580.51	1302.90	288.75	SMT	3,76,212.09	
ITEM No.58		ITEM NO. 16 Providing and applying plastic emulsion paint of approved quality, colour and shade to new surface in three coats including scaffolding, preparing the surface. (excluding primer coat) etc. complete. SSR 36.14/228	0.00	204.27	118.45	273.36	596.08	141.75	SMT	84,494.48	
ITEM No.59		ITEM NO :- 17 Providing and applying two coats of synthetic enamel paint of approved colour to new/old structural steel work and wood work in buildings, including scaffolding if necessary, cleaning and preparing the surface (excluding primer coat) etc. complete. SSR 35.07 /223	0.00	10.00	10.00	10.00	30.00	100.80	SMT	3,024.00	
5		PAVING FLOORING AND DADO									
ITEM No.60		Providing and fixing machine cut machine polished 18 mm to 20 mm thick telephone black / Amba White / Cat bary brown / RBI red / Ocean Brown granite stone for treads and risers of steps and staircases of approved colour and shade with rounded moulding and three grooved line for the treads on bed of 1:4 Cement mortar including float filling joints with neat cement slurry curing polishing and cleaning etc. complete. SSR Item No : 33.35	163.00	0.00	0.00	40.88	203.88	4398.82	Sqm	8,96,844.43	

		Name of Client -MAHARASHTRA FLIM ,STAGE AND CULTURAL DEVELOPMENT CORPORATION LIMITED									
		Proposed Repair and upgradation of studio 1,2,5,7,16 & Hospital at Goregaon Filmcity.									
Sr.No.		ITEM	Studio 1,2& Hospital	Studio 5	Studio 7	Studio 16	Total Qty	Rate	Per	Amount (INR)	
ITEM No.61		Providing and laying vitrified mirror /glossy finish tiles having size 590 mm to 605 mm x 590 mm to 605 mm of 8 to10 mm thickness and confirming to IS.15622 -2006 (group Bla) of approved make, shade and pattern for dado and skirting in required position fixed in 1:4 cement mortar including neat cement float, filling joints, curing and clearing etc. complete.	1107.00	0.00	0.00	0.00	1107.00	2054.93	Sqm	22,74,807.03	
		SSR Item No : 33.41									
ITEM No.62		Providing and laying vitrified matt fininsh tiles having size 590 mm to 605 mm x to 605 mm of 8 to 10 mm thickness and confirming IS. 15622-2006 (Group Bla) of approved make,shade and pattern for flooring in required position laid on a bed of 1:4 cement morar including neat cement float, filling joints, curing and cleaning etc. complete.	2461.00	0.00	0.00	0.00	2461.00	1698.22	Sqm	41,79,324.77	
		SSR Item No : 33.42									
ITEM No.63		Providing and laying vitrified rustic matt stone finish tiles having size 590 mm to 605 mm x 590 mm to 605 mm of 8 to 10mm thickness and confirming to IS. 15622-2006 (Group Bla) of approved make, shade and pattern for flooring in required position laid on a bed of 1:4 cement mortar including neat cement float, filling joints, curing and cleaning etc. complete.	0.00	0.00	0.00	0.00	0.00	1875.67	Sqm	-	
		SSR Item No : 33.44									
ITEM No.64		Providing and laying vitrified rustic matt stone finish tiles having size 590 mm to 605 mm x 590 mm to 605 mm to 8 to 10mm thickness and confirming to IS. 15622-2006 (Group Bla) of approved make, shade and pattern for dado and skirting in required position fixed in 1:4 cement mortar including neat cement float, filling joints, curing and cleaning. etc. complete.	0.00	0.00	0.00	0.00	0.00	1954.42	Sqm	-	
		SSR Item No : 33.45									
ITEM No.65		Providing and fixing green marble of 18 to 20 mm thick for door frame/ dado/ window boxing etc. On C.M. 1:6 including filling joints with polymer base filler nosing / moulding the sharp edges wherever necessary, curing, etc. complete.	0.00	0.00	0.00	0.00	0.00	2503.57	Sqm	-	
		SSR Item No : 33.48									
ITEM No.66		Providing and fixing heavy duty inter locking concrete Grey paving blocks of 60 mm thickness of having a strength of 300 Kilogram/Sq.cm. of approved quality and shape on a bed of crushed sand of 25 to 30 mm thick including skirting joints and cleaning etc. complete.	550.00	150.00	350.00	300.00	1350.00	882.00	Sqm	11,90,700.00	
		SSR Item No : 33.49									
ITEM No.67		Providing and fixing heavy duty inter locking concrete Grey paving blocks of 80 mm thickness of having a strength of 300 Kilogram/Sq.cm. of approved quality and shape on a bed of crushed sand of 25 to 30 mm thick including skirting joints and cleaning etc. complete.	0.00	0.00	0.00	0.00	0.00	1083.60	Sqm	-	
		SSR Item No : 33.50									
ITEM No.68		Providing and fixing heavy duty inter locking concrete Coloured paving blocks of 60 mm thickness of having a strength of 300 Kilogram/Sq.cm. of approved quality and shape on a bed of crushed sand of 25 to 30 mm thick including skirting joints and cleaning etc. complete	0.00	0.00	0.00	0.00	0.00	964.95	Sqm	-	
		SSR Item No : 33.51									
ITEM No.69		Providing and fixing heavy duty inter locking concrete Coloured paving blocks of 80 mm thickness of having a strength of 300 Kilogram/Sq.cm. of approved quality and shape on a bed of crushed sand of 25 to 30 mm thick including skirting joints and cleaning etc. complete	0.00	0.00	0.00	0.00	0.00	1224.30	Sqm	-	
		SSR Item No : 33.52									
ITEM No.70		Providing and laying Vitrified mirror/glossy finish having decorative type of size 590 millimeter to 605 millimeter x 590 millimeter to 605 millimeter of 8 to 10 millimeter thickness (on a existing flooring) with bonding chemical and confirming to IS 15622-2006 (Group Bla) of approved make shade and pattern for flooring in required position laid on a bed of bonding chemical filling joints curing and cleaning etc. complete.	0.00	0.00	0.00	0.00	0.00	1277.85	Sqm	-	
		SSR Item No : 33.58									
ITEM No.71		Providing and laying Vitrified MATT finish having decorative type of size 600 millimeter x 600 millimeter of 8 to 10 millimeter thickness (on a existing flooring) with bonding chemical and confirming to IS 15622-2006 (Group Bla) of approved make shade and pattern for flooring in required position laid on a bed of bonding chemical filling joints curing and cleaning etc. complete.	0.00	0.00	0.00	0.00	0.00	1717.80	Sqm	-	
		SSR Item No : 33.59									
ITEM No.72		Providing and laying Vitrified RUSTIC MATT STONE finish having decorative type tiles of size 600 millimeter x 600 millimeter of 8 to 10 millimeter thickness (on a existing flooring) with bonding chemical and confirming to IS 15622-2006 (Group Bla) of approved make shade and pattern for flooring in required position laid on a bed of bonding chemical filling joints curing and cleaning etc. complete.	0.00	0.00	0.00	0.00	0.00	1849.05	Sqm	-	
		SSR Item No : 33.62									

		Name of Client -MAHARASHTRA FLIM ,STAGE AND CULTURAL DEVELOPMENT CORPORATION LIMITED									
		Proposed Repair and upgradation of studio 1,2,5,7,16 & Hospital at Goregaon Filmcity.									
Sr.No.		ITEM	Studio 1,2& Hospital	Studio 5	Studio 7	Studio 16	Total Qty	Rate	Per	Amount (INR)	
ITEM No.73		Providing and laying Vitrified STONE EFFECT FINISH having decorative type tiles of size 590 millimeter to 605 millimeter x 590 millimeter to 605 millimeter of 8 to 10 millimeter thickness (on a existing flooring) with bonding chemical and confirming to IS 15622-2006 (Group Bla) of approved make shade and pattern for flooring in required position laid on a bed of bonding chemical filling joints curing and cleaning etc. complete.	0.00	0.00	0.00	0.00	0.00	1913.47	Sqm	-	
		SSR Item No : 33.65									
ITEM No.74		Providing and laying telephone black / Amba White / Cadburybrown / Ruby red / Ocean Brown granite stone of 18 to 20 mm thick for door frame/ dado/ window boxing etc. On C.M. 1:6 including filling joints with polymer base filler nosing/moulding the sharp edges wherever necessary, curing, etc. complete.	0.00	0.00	0.00	0.00	0.00	4623.52	Sqm	-	
		SSR Item No : 33.68									
ITEM No.75		Providing & fixing 20mm +/- 2mm thick both side mirror polished approved colour Granite Urinal partitions of 600 mm wide & 1550 mm high with round edges moulding and fixed in C.M. 1:2and filling joints in white cement mixed with pigment to match the colour of granite including curing, cleaning etc.complete.(Basic Rate Rs 3600/sqm)	0.00	0.00	0.00	0.00	0.00	6522.00	No	-	
		SOR-23 /R3-CS-FL-93 /Pg 109									
ITEM No.76	SOR-23 /R3-CS-PS-5 /Pg 181	Providing and fixing white vitreous china flat back half stall urinal of size 580x380x350mm with white PVC automatic flushing cistern,with fittings, standard size C.P. brass flush pipe, spreaders with unions and clamps (all in C.P. brass) with waste fitting as per IS :2556, C.I. trap with outlet grating and other couplings in C.P. brass including painting of fittings and cutting and making good the walls and floors wherever required :									
	SOR-23 /R3-CS-PS-5-b	Range of two half stall urinals with 5 litre P.V.C. automatic flushing cistern.	0.00	0.00	0.00	0.00	0.00	16845.00	Each	-	
		SOR-23 /R3-CS-PS-5-b									
	SOR-23 /R3-CS-PS-5-C	Range of three half stall urinals with 10 litre P.V.C. automatic flushing cistern.	0.00	0.00	0.00	0.00	0.00	21081.00	Each	-	
ITEM No.77		SOR-23 /R3-CS-PS-5-C									
	SSR 22-23 / Item No. 51.13 / Pg 354	Providing & Fixing in position, Carpet more than 800+ gsm, made with100% stain proof fibres of approved make along with 5mm underlay as per Architectural & Acoustical Design & Instructions & Complete in all aspects including all materials labour,finishing etc complete	0.00	0.00	0.00	0.00	0.00	1522.50	Sqm	-	
ITEM No.78		SSR Item No. : 51.13									
	SOR-23/R3-CS-FL-22/78	Providing and fixing 15 to 20mm thk. rough natural stone tiles as specified below of approved quality, pattern and colour for flush/projected skirting and risers including preparing the surface and levelling in the desired line, backing of 20 thk. cement mortar in porportion 1:3, square cut top edge or chamfered top edge in cement mortar 1:3, cement float, machine cutting, leveling, jointing, filling the joints with neat cement or pigment mixed with cement, polishing, finishing, curing etc complete as directed by Engineer In Charge.	0.00	0.00	0.00	0.00	0.00	603.00	Rmt	-	
		Steel gray Granite tiles/slab for height upto 150 mm									
ITEM No.79		SOR-23/R3-CS-FL-22-g/78									
		ITEM NO .18 Providing and laying vitrified mirror / glossy finish tiles decorative type having size 590 mm to 605 mm x 590 mm to 605 mm of 8 to 10 mm thickness and confirming to IS. 15622-2006 (group Bla) of approved make, shade and pattern for flooring in required position laid on a bed of 1:4 cement mortar including neat cement float, filling joints, curing and clearing etc. complete. a) Flooring		166.81	83.95	221.06	471.82	1,253.84	SMT	5,91,589.30	
ITEM No.79A		SSR 33.40 / 217									
		ITEM NO :- 19 Providing and applying two coats of synthetic enamel paint of approved colour to new/old structural steel work and wood work in buildings, including scaffolding if necessary, cleaning and preparing the surface (excluding primer coat) etc. complete.				10.00	10.00	100.80	SMT	1,008.00	
ITEM No.80		SSR 35.07 /223									
		ITEM NO .19 Providing and laying vitrified mirror / glossy finish tiles having size 590 mm to 605 mm x 590 mm to 605 mm of 8 to 10 mm thickness and confirming to IS. 15622-2006 (group Bla) of approved make, shade and pattern for dado and skirting in required position fixed in 1:4 cement mortar including neat cement float, filling joints, curing and clearing etc.complete		166.44	145.98	236.65	549.06	1,332.59	SMT	7,31,671.87	
		SSR 33.41 / 217									

		Name of Client -MAHARASHTRA FLIM ,STAGE AND CULTURAL DEVELOPMENT CORPORATION LIMITED									
		Proposed Repair and upgradation of studio 1,2,5,7,16 & Hospital at Goregaon Filmcity.									
Sr.No.		ITEM	Studio 1,2& Hospital	Studio 5	Studio 7	Studio 16	Total Qty	Rate	Per	Amount (INR)	
ITEM No.81		ITEM NO.20 Providing and laying vitrified matt fininsh tiles having size 590 mm to 605 mm x to 605 mm of 8 to 10 mm thickness and confirming IS. 15622-2006 (Group Bla) of approved make, shade and pattern for flooring in required position laid on a bed of 1:4 cement morar including neat cement float, filling joints, curing and cleaning etc. complete. SSR 33.42 /217		28.01	92.20	312.15	432.36	1,697.99	SMT	7,34,142.96	
ITEM No.82		ITEM NO.21 Providing and laying Antiskid Ceramic tiles of approved quality of size 30 cm x 30 cm and confirming to IS 15622-2006 (Group-B IIA) for antiski flooring in required position laid on a bed of 1:4 cement mortar including cement float, filling joint with cement slurry cleaning curing etc. complete. SSR 33.67/220		5.00	5.00	5.00	15.00	1,275.29	SMT	19,129.35	
ITEM No.83		ITEM NO.22 Providing and laying ceramic tiles having size 30 cm. x 60 cm. confirming to corresponding I.S. for dado and skirting in required position with readymade adhesive mortar of approved quality on plaster of 1:2 cement mortar including joint filling with white/ colour cement slurry cleaning curing etc. complete. SSR 33.27/215		5.00	5.00	5.00	15.00	1,476.89	SMT	22,153.35	
ITEM No.84		ITEM NO.23 Providing and laying hand made tile of various size and aproved designs for dado and skirting in required position with readymade adhesive mortar of approved quality on plaster of 1:2 cement mortar including joint filling with white/ colour cement slurry cleaning curing etc. complete. RA		5.00	5.00	5.00	15.00	9,890.00	SMT	1,48,350.00	
ITEM No.85		ITEM NO.24 Providing and laying machine cut machine Polished Kota stone flooring 25mm to 30mm thick and required width in plain/ diamond pattern on bed of 1:6 C. M. including cement float, filling joints with neat cement slurry, curing, polishing and cleaning etc. complete. SSR 33.06 / 213		5.00	5.00	5.00	15.00	1,329.14	SMT	19,937.10	
ITEM No.86		ITEM NO.25 Providing and laying telephone black / Amba White / Cadburybrown / Ruby red / Ocean Brown granite stone of 18 to 20 mm thick for door frame/ dado/ window boxing etc. On C.M. 1:6 including filling joints with polymer base filler nosing/moulding the sharp edges wherever necessary, curing, etc. complete. SSR 33.68/220		39.48	34.56	58.89	132.93	4,623.29	SMT	6,14,573.94	
ITEM No.87		ITEM NO.26 Providing and fixing frame with / without ventilator of size as specified with Country cut teak wood for doors and windows including chamfering, rounding, rebating, iron holdfast of size 300mm x 40mm x 5mm with oil painting, etc. complete SSR 39.01 / 245		0.42	1.24	1.09	2.75	2,10,052.50	CMT	5,78,006.88	
6		SANITARY FIXTURES									
ITEM No.88	SOR-23 / R3-CS-PS-4 / Pg 164	Providing and fixing white vitreous china flat back or wall corner type lipped front urinal basin of 430x260x350mm and 340x410x265mm sizes respectively with automatic flushing cistern with standard flush pipe and C.P. brass spreaders with brass unions and G.I clamps complete, including painting of fittings and brackets, cutting and making good the walls and floors wherever required :									
	SOR-23 /R3-CS-PS-4-b	Range of two urinal basins with 5 litre white P.V.C. automatic flushing cistern	0.00	0.00	0.00	0.00	0.00	9190.00	Each	-	
ITEM No.89		SOR-23 /R3-CS-PS-4-b									
	SOR-23 / R3-CS-PS-1 / Pg 164	Providing and fixing water closet squatting pan (Indian type W.C. pan) with 100mm sand cast Iron P or S trap, 10 litre low level white P.V.C. flushing cistern, including flush pipe, with manually controlled device (handle lever) conforming to IS : 7231, with all fittings and fixtures complete including cutting and making good the walls and floors wherever required :									
	SOR-23 /R3-CS-PS-1-a	White Vitreous china Orissa pattern W.C. pan of size 580x440mm with integral type foot rests.	0.00	0.00	0.00	0.00	0.00	7810.00	Each	-	
		SOR-23 /R3-CS-PS-1-a									

			Name of Client -MAHARASHTRA FLIM ,STAGE AND CULTURAL DEVELOPMENT CORPORATION LIMITED							
		Proposed Repair and upgradation of studio 1,2,5,7,16 & Hospital at Goregaon Filmcity.								
Sr.No.		ITEM	Studio 1,2& Hospital	Studio 5	Studio 7	Studio 16	Total Qty	Rate	Per	Amount (INR)
ITEM No.90	SOR-23 / R3-CS-PS-2 / Pg 164	Providing and fixing white vitreous china pedestal type water closet (European type W.C. pan) with seat and lid, 10 litre low level white P.V.C. flushing cistern, including flush pipe, with manually controlled device (handle lever), conforming to IS : 7231, with all fittings and fixtures complete including cutting and making good the walls and floors wherever required :								
	SOR-23 /R3-CS-PS-2-a	W.C. pan with ISI marked white solid plastic seat and lid	13.00	0.00	0.00	0.00	13.00	8007.00	Each	1,04,091.00
		SOR-23 /R3-CS-PS-2-a								
ITEM No.91	SOR-23 / R3-CS-PS-7 / Pg 165	Providing and fixing wash basin with C.I. brackets, 15 mm C.P. brass pillar taps,32 mm C.P. brass waste of standard pattern,including painting of fittings and brackets, cutting and making goodthe walls wherever require :								
	SOR-23 /R3-CS-PS-7-a	White Vitreous China Wash basin size 630x450 mm with a pair of 15 mm C.P. brass pillar taps.	17.00	0.00	0.00	2.00	19.00	3858.00	Each	73,302.00
		SOR-23 /R3-CS-PS-7-a								
ITEM No.92	SOR-23/R3-CS-PS-30/185	Providing and fixing 600x450 mm bevelled edge mirror of superior glass (of approved quality) complete with 6 mm thick hard board ground fixed to wooden cleats with C.P. brass screws and washers complete.	0.00	0.00	0.00	0.00	0.00	1919.00	Each	-
		SOR-23/R3-CS-PS-30/185								
	ITEM No.93	SOR-23/R3-CS-PS-31/185	Providing and fixing mirror of superior glass (of approved quality) and of required shape and size with plastic moulded frame of approved make and shade with 6 mm thick hard board backing							
SOR-23/R3-CS-PS-31-d		Rectangular shape 1500x450 mm	0.00	0.00	0.00	0.00	0.00	2770.00	Each	-
		SOR-23/R3-CS-PS-31-d								
ITEM No.94	SOR-23 / R3-CS-PS-204/pg 201	Providing and fixing Health Faucet with one metre long easy flex tube in chrome finish and wall flange	0.00	0.00	0.00	15.00	15.00	1324.00	Each	19,860.00
		SOR-23 / R3-CS-PS-204								
ITEM No.95	RA For Angular Stop Clock	Providing and fixing C.P. Angular stop clock with wall flange Jaquar make or equivalent continental (CAT.NO. CON-059) including necessary sockets/union nut etc. complete. Spec No. As directed by Engineer in charge								
		Notes: The rates quoted shall include cost of necessary consumables like brass screws, CP extension nipple of approved make, dia and length, wooden plugs, white cement, sealants etc. (Make : Jaquar, Model No :CON-059 KN cop- or Equivalent)	0.00	0.00	0.00	14.00	14.00	1200.00	No.	16,800.00
		RA For Angular Stop Clock								
ITEM No.96	SSR 22-23 / Item No. 48.34 / Pg 315	Providing and fixing wall mixer with overhead shower,shower arm,hand shower with wall bracket having flow rate up to 12 liters/minutes of Jaquar/Cera/Hindware /Perryware or equivalent make including all necessary pipes,fittings etc.complete as directed by Engineer In Charge.(Make shall conform to manufacturer's Green product and shall got approved from the Engineer In Charge.)	0.00	0.00	0.00	0.00	0.00	5759.25	Each	-
		SSR Item No : 48.34								
ITEM No.97	SOR-23 / R3-CS-PS-203/pg 201	Providing and fixing C.P. Brass two way bib cock with flange of approved quality and make.	14.00	0.00	0.00	15.00	29.00	1116.00	Each	32,364.00
		SOR-23 / R3-CS-PS-203/pg 201								
ITEM No.98	SSR 22-23 / Item No. 43.39	Providing and fixing 15 mm diameter PVC Aqua kraft type of approved make super jet spray with flange 2 in 1 faucet 1.50 metre long including all accessories etc complete	0.00	0.00	0.00	0.00	0.00	808.50	No	-
		SSR Item No : 48.29								
ITEM No.99	RA for Tower Rod	Providing and fixing JAQUAR MAKE, C.P. Towel rail 24" continental (Cat. No. ACN 1111N) including brackets, all fixtures, fittings and making goodthe wall wherever required etc. complete.	0.00	0.00	0.00	0.00	0.00	1329.00	No	-
		RA for Tower Rod								

		Name of Client -MAHARASHTRA FLIM ,STAGE AND CULTURAL DEVELOPMENT CORPORATION LIMITED									
		Proposed Repair and upgradation of studio 1,2,5,7,16 & Hospital at Goregaon Filmcity.									
Sr.No.		ITEM	Studio 1,2& Hospital	Studio 5	Studio 7	Studio 16	Total Qty	Rate	Per	Amount (INR)	
ITEM No.100	RA for Handshower	Providing and fixing C.P. Handshower (health faucet) 1m.PVC tube with wall hook Jaquar make (Cat. No. ALD 563) including all fixtures, fittings and making goodthe wall wherever required etc. complete.	14.00	0.00	0.00	0.00	14.00	1297.80	No.	18,169.20	
		RA for Handshower									
ITEM No.101	SSR 22-23/item No. 42.79 Page 282	Providing and fixing C.P. Angular stop clock with wall flange Jaquar make or equivalent continental (CAT.NO. CON-059) including necessary sockets/union nut etc. complete. Spec No. As directed by Engineer in charge	15.00	0.00	0.00	0.00	15.00	2821.35	No.	42,320.25	
		SSR Item No. : 42.79									
ITEM No.102	SSR 22-23/ Item No. 42.82 Page 282	Providing and fixing C.P. pillar cock long neck with aerator jaquar or equivalent make continental (CAT.NO. CON -021) including necessary sockets/union nut etc. complete. Spec No. As directed by Engineer in charge.	15.00	0.00	0.00	14.00	29.00	1706.25	No.	49,481.25	
		SSR Item No. : 42.82									
ITEM No.103	SSR 22-23 /Sr. No 228./Page No	Providing and fixing JAQUAR MAKE, C.P. Towel rail 24" continental (Cat. No. ACN 1111N) including brackets, all fixtures, fittings and making goodthe wall wherever required etc. complete.	8.00	0.00	0.00	10.00	18.00	1022.70	No.	18,408.60	
		Sr. No 228.Pg No- 536									
ITEM No.104	SOR-23/R3-CS-PS-254	Providing and fixing JAQUAR MAKE,HOTELIER series Model No. 1551 Toilet Paper Holder Recessed type (S.Steel) including cutting and making goodthe wall wherever required etc complete	13.00	0.00	0.00	0.00	13.00	1690.00	No	21,970.00	
		SOR-23/R3-CS-PS-254									
ITEM No.105	SOR-23/R3-CS-PS-261	Providing and fixing ISI marked make CP brass liquid soap dispensers with CP brass bracket capacity 250 ml.	13.00	0.00	0.00	0.00	13.00	2748.00	No	35,724.00	
		SOR-23/R3-CS-PS-261									
ITEM No.106	SOR-23/R3-CS-PS-259	Providing & Fixing 100mm diameter Nahani trap Jali in steel finish with necessary fixing required to make the item well functional.	13.00	0.00	0.00	0.00	13.00	437.00	No	5,681.00	
		SOR-23/R3-CS-PS-259									
7	PLUMBING										
ITEM No.107	SSR 22-23 / I.N. 42.55 / Pg. 280	Providing and fixing on walls/ ceiling/ floor 15 mm dia. CPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	0.00	0.00	0.00	0.00	0.00	279.30	Rmt	-	
		SSR 22-23 / I.N. 42.55 / Pg. 280									
ITEM No.108	SSR 22-23 / I.N. 42.56 / Pg. 280	Providing and fixing on walls/ceiling/floor 20 mm dia. CPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	99.00	0.00	0.00	0.00	99.00	325.50	Rmt	32,224.50	
		SSR 22-23 / I.N. 42.56 / Pg. 280									
ITEM No.109	SSR 22-23 / I.N. 42.57 / Pg. 280	Providing and fixing on walls/ ceiling/ floor 25 mm dia. CPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	0.00	0.00	0.00	0.00		393.75	Rmt	-	
		SSR 22-23 / I.N. 42.57 / Pg. 280									
ITEM No.110	SSR 22-23 / I.N. 42.58 / Pg. 280	Providing and fixing on walls/ ceiling/ floor 32 mm dia. CPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	26.00	0.00	0.00	0.00	26.00	452.55	Rmt	11,766.30	
		SSR 22-23 / I.N. 42.58 / Pg. 280									
ITEM No.111	SSR 22-23 / I.N. 42.59 / Pg. 280	Providing and fixing on walls /ceiling/ floor 40 mm dia. CPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	3.00	0.00	0.00	0.00	3.00	565.95	Rmt	1,697.85	
		SSR 22-23 / I.N. 42.59 / Pg. 280									

			Name of Client -MAHARASHTRA FLIM ,STAGE AND CULTURAL DEVELOPMENT CORPORATION LIMITED							
		Proposed Repair and upgardation of studio 1,2,5,7,16 & Hospital at Goregaon Filmcity.								
Sr.No.		ITEM	Studio 1,2& Hospital	Studio 5	Studio 7	Studio 16	Total Qty	Rate	Per	Amount (INR)
ITEM No.112	SSR 22-23 / I.N. 42.60 /	Providing and fixing on walls/ ceiling/ floor 50 mm dia. CPVC pipe with necessary fittings, remaking good the demolished portion etc. complete.	4.00	0.00	0.00	0.00	4.00	778.05	Rmt	3,112.20
		SSR 22-23 / I.N. 42.60 / Pg. 280								
ITEM No.113	SSR 22-23 / I.N. 42.90 / Pg. 284	Providing and fixing on walls/ceiling/floor 20 mm dia. uPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	48.00	0.00	0.00	0.00	48.00	303.45	Rmt	14,565.60
		SSR 22-23 / I.N. 42.90 / Pg. 284								
ITEM No.114	SSR 22-23 / I.N. 42.91 / Pg. 284	Providing and fixing on walls/ ceiling/ floor 25 mm dia. uPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	12.00	0.00	0.00	0.00	12.00	372.75	Rmt	4,473.00
		SSR 22-23 / I.N. 42.91								
ITEM No.115	SSR 22-23 / I.N. 42.92 / Pg. 284	Providing and fixing on walls/ ceiling/ floor 32 mm dia. uPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	60.00	0.00	0.00	0.00	60.00	432.60	Rmt	25,956.00
		SSR 22-23 / I.N. 42.92 / Pg. 284								
ITEM No.116	SSR 22-23 / I.N. 42.93 / Pg. 284	Providing and fixing on walls /ceiling/ floor 40 mm dia. uPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	6.00	0.00	0.00	0.00	6.00	546.00	Rmt	3,276.00
		SSR 22-23 / I.N. 42.93 / Pg. 284								
ITEM No.117	SSR 22-23 / I.N. 42.94 / Pg. 284	Providing and fixing on walls/ ceiling/ floor 50 mm dia. uPVC pipe with necessary fittings, remaking good the demolished portion etc. complete.	30.00	0.00	0.00	0.00	30.00	758.10	Rmt	22,743.00
		SSR 22-23 / I.N. 42.94 / Pg. 284								
ITEM No.118	SOR-23/R3-CS-PS-225-b/205	Providing, fixing and testing heavy quality gun metal or brass ball valve with screwed ends 20kgm class on GI or copper pipe lines (Leader/ZOLOTO make) 20 mm (3/4") dia.	16.00	0.00	0.00	0.00	16.00	794.00	No	12,704.00
		SOR-23/R3-CS-PS-225-b/205								
ITEM No.119	SOR-23/R3-CS-PS-225-C/205	Providing, fixing and testing heavy quality gun metal or brass ball valve with screwed ends 20kgm class on GI or copper pipe lines (Leader/ZOLOTO make) 25 mm (1") dia.	0.00	0.00	0.00	0.00	0.00	1088.00	No	-
		SOR-23/R3-CS-PS-225-C/205								
ITEM No.120	SOR-23/R3-CS-PS-225-d/205	Providing, fixing and testing heavy quality gun metal or brass ball valve with screwed ends 20kgm class on GI or copper pipe lines (Leader/ZOLOTO make) 32 mm (1 1/4") dia.	12.00	0.00	0.00	0.00	12.00	1582.00	No	18,984.00
		SOR-23/R3-CS-PS-225-d/205								
ITEM No.121	SOR-23/R3-CS-PS-225-e/205	Providing, fixing and testing heavy quality gun metal or brass ball valve with screwed ends 20kgm class on GI or copper pipe lines (Leader/ZOLOTO make) 40 mm (1 1/2") dia.	0.00	0.00	0.00	0.00		2443.00	No	-
		SOR-23/R3-CS-PS-225-e/205								
ITEM No.122	SOR-23/R3-CS-PS-225-f/205	Providing, fixing and testing heavy quality gun metal or brass ball valve with screwed ends 20kgm class on GI or copper pipe lines (Leader/ZOLOTO make) 50 mm (2") dia.	2.00	0.00	0.00	0.00	2.00	3227.00	No	6,454.00
		SOR-23/R3-CS-PS-225-f/205								
ITEM No.123	SOR-23/R3-CS-PS-191/200	Providing and fixing in position uPVC/SWR (Soil/Waste/Rain) pipe of type-B 75 mm dia. in any position including all fittings and accessories, making joints / connections water tight with solvent cement, scaffolding if necessary and making good the damages if any (excluding excavation and refilling the trenches) etc. complete as specified and directed.(All fittings and accessories like clamps,etc. should be of same brand. No separate payment shall be made for fittings and accessories).	191.00	0.00	12.00	0.00	203.00	271.00	Rmt	55,013.00
		SOR-23/R3-CS-PS-191/200								

			Name of Client -MAHARASHTRA FLIM ,STAGE AND CULTURAL DEVELOPMENT CORPORATION LIMITED									
			Proposed Repair and upgradation of studio 1,2,5,7,16 & Hospital at Goregaon Filmcity.									
Sr.No.		ITEM	Studio 1,2& Hospital	Studio 5	Studio 7	Studio 16	Total Qty	Rate	Per	Amount (INR)		
ITEM No.124	SOR-23/R3-CS-PS-192/201	Providing and fixing in position uPVC/SWR (Soil/Waste/Rain) pipe of type-B 110 mm dia. in any position including all fittings and accessories, making joints / connections water tight with solvent cement, scaffolding if necessary and making good the damages if any (excluding excavation and refilling the trenches) etc. complete as specified and directed.(All fittings and accessories like clamps,etc. should be of same brand. No separate payment shall be made for fittings and accessories).	324.00	0.00	12.00	0.00	336.00	414.00	Rmt	1,39,104.00		
		SOR-23/R3-CS-PS-192/201										
ITEM No.125	SOR-23/R3-CS-PS-202/201	Providing and fixing in position uPVC/SWR (Soil/Waste/Rain) pipe of type-B 160 mm dia. in any position including all fittings and accessories, making joints / connections water tight with solvent cement, scaffolding if necessary and making good the damages if any (excluding excavation and refilling the trenches) etc. complete as specified and directed.(All fittings and accessories like clamps,etc. should be of same brand. No separate payment shall be made for fittings and accessories).	437.00	0.00	0.00	389.00	826.00	981.00	SET	8,10,306.00		
		SOR-23/R3-CS-PS-202/201										
ITEM No.126	SSR 22-23 / I.N. 42.85/ Pg. 283	Providing and fixing P.V.C. Rain water pipes of 160mm outer diameter and having wall thickness of 2.2 to 2.7 mm confirming to I.S. 13592-1992 including proper rainwater receiving recess with P.V.C. plug, bend, necessary fittings, such as, offsets, shoes, including fixing the pipe on wall using approved wooden cleats projecting 25mm to 40mm from face of wall a fixing with clips of approved quality and One Number ,filing the joint using rubber gasket with solvent cement and properly resting the shoe of pipes o C.C. or masonry blocks, including necessary scaffolding and maintenance for 3 yrs for any leakages or dislocations of pipes. All the P.V.C. fittings and additional 2 piece socket clips shall be got approved from engineer in charge etc. complete.	0.00	29.00	36.00	0.00	65.00	1555.05	Rmt	1,01,078.25		
		SSR Item No : 42.85										
ITEM No.127	SOR-23/R3-CS-PS-208-b/202	Supplying, laying, jointing & testing UPVC Drainage class pipes of FoamcoreAstral(SN 8) or equivalent make in solvent cement joint including leveling with cutting the pipe to required length, roughining of pipe at wall joint including socket as directed: 200 mm pipe	0.00	58.00	70.00	0.00	128.00	1400.00	Rmt	1,79,200.00		
		SOR-23/R3-CS-PS-208-b/202										
ITEM No.128	RA for PUMP	Booster Pump system (At Terrace Level)										
		Supply, Installation, Testing And Commissioning Of Compact Self Contained Skid Mounted factory fitted & factory										
		In-Line, Multisage, centrifugal pumps with SS-304 casing and impeller and SS-316 shaft, CI base & head TEFC motor										
		(Vendor to submit performance curves and technical catalog of the proposed model for review & information)										
		The pump shall be selected for performance at best efficiency point. However, the pump selection shall be suitable for										
		Flow rate : As described below										
		Head : As described below Mtr										
		Purpose : Domestic/ Flush/ DM/ Drinking water supply										
		External Pump mounted or wall mounted microprocessor PID controller and frequency inverter integrated in a single										
		Quantity : 1 Nos.										
		Complete (Skid mounted wall mounted / floor mounted) electrical control panel comprising of all accessories such as										
		Precharged diaphragm pressure vessel with food grade membrane, charging connection, connected to outlet header with										
		Set of accessories such as pressure switches, pressure transducers, inter connecting power and control cabling etc.										
		Including accessories like NRVs, Y Stainer, isolating valves, SS-304 (non-Magnetic) suction and delivery header,										
		Booster Pump System (1 Set = 1W + 1S)										
		280 LPM @ 18 MTR (Studio 16 & Hospital)	1.00	0.00	0.00	1.00	2.00	420000.00	SET	8,40,000.00		
ITEM No.129	ITEM NO.56	Providing and fixing European type wall-hung white water closet of approved make with push valve concealed type with cover plate 32mm size of approved make including soil pipe, vent pipe up to outside face of wall ,100mm dia. G.I. plug bend inlet pipe all fittings, cuttingand making good walls, floors etc. complete.		6.00	9.00	16.00	31.00	15,777.30	NOS	4,89,096.30		
		SSR 42.86										
ITEM No.130	ITEM NO.57	Providing and fixing 1st class white glazed earthenware Orissa Type W.C. Pan 580 mm dia including P or S trap cast iron soil and vent pipe upto the outside face of the wall (1:5:1 0) cement concrete bedding 15 mm thick, 10 liter P.V.C. flushing cistern with all necessary pipe connection etc. complete		1.00	1.00	16.00	18.00	7,757.40	NOS	1,39,633.20		
		SSR 42.33										
ITEM No.131	ITEM NO.58	Providing and fixing Oval Type Under Counter Wash Hand Basin of 420 x 590 x 195mm size with pillar cock, C.P.Angular stop cock, long thread of approved make continental including SS bottle trap of necessary pipe connection up to the outside face of the wall, having Telephonic Black / Colour Granite of 180 mm thick fixed on Black Kadappa Framework, etc. Complete as directed by Engineer in charge.		9.00	9.00	17.00	35.00	20,883.45	NOS	7,30,920.75		
		SSR 48.35 /315										

		Name of Client -MAHARASHTRA FLIM ,STAGE AND CULTURAL DEVELOPMENT CORPORATION LIMITED									
		Proposed Repair and upgradation of studio 1,2,5,7,16 & Hospital at Goregaon Filmcity.									
Sr.No.		ITEM	Studio 1,2& Hospital	Studio 5	Studio 7	Studio 16	Total Qty	Rate	Per	Amount (INR)	
ITEM No.132		ITEM NO.59 Providing and fixing C.P. BIB cock with wall flange of approved make including necessary sockets/ union nut etc. complete. SSR 42.83		2.00	9.00	16.00	27.00	1,163.40	NOS	31,411.80	
ITEM No.133		ITEM NO.60 C.P.angular stop cock with wall flange jaquar make continental (Cat.No. CON- 059) SSR 216		1.00	27.00	35.00	63.00	720.30	NOS	45,378.90	
ITEM No.134		ITEM NO.61 Providing and fixing C.P. a 2-Way BIB cock with wall flange of approved make including necessary sockets/ union nut etc. complete as directed by Engineer in charge. SSR 48.39		6.00	9.00	16.00	31.00	2,482.20	NOS	76,948.20	
ITEM No.135		ITEM NO. 62 Providing and fixing 15 mm diameter PVC Aqua kraft type of approved make super jet spray with flange 2 in 1 faucet 1.50 metre long including all accessories etc complete SSR 43.39		6.00	9.00	16.00	31.00	808.50	NOS	25,063.50	
ITEM No.136		ITEM NO.63 Providing and fixing 450mm x 550mm size superior type Belgium mirror with 16mm dia. nickel plated towel rod etc. complete. SSR 42.20		6.00	9.00	14.00	29.00	904.05	NOS	26,217.45	
ITEM No.137		ITEM NO.64 C.P.Toilet paper holder jaquar make continental (Cat. No. AQ 7751) SSR 232		6.00	9.00	14.00	29.00	1,048.95	NOS	30,419.55	
ITEM No.138		ITEM NO.65 Supplying and erecting storage type water heater 15 litres capacity having standing loss <0.419 kWh / 24 hour / 45°C, high impact resistance engineering plastic body with anti corrosive high grade steel inner tank heating element having hard water & corrosion protection, with minimum 3 safety protections (i.e. thermostat & thermal cut-out, multi function valve) with total pressure 8 bar withstanding capacity duly tested and marking sr. no. and date of erection complete. specification no. AP-WH/STWH CSR 3-1-1		6.00	9.00	11.00	26.00	8,991.00	NOS	2,33,766.00	
ITEM No.139		ITEM NO :-66 Providing and fixing diverter with overhead shower,shower arm,spout,hand shower with wall bracket having flow rate up to 12 liters/minutes of Jaquar/Cera/Hindware /Perryware or equivalent make including all necessary pipes,fittings etc.complete as directed by Engineer In Charge.(Make shall conform to manufacturer's Green product and shall got approved from the Engineer In Charge.) 48.33 /315		6.00	9.00	11.00	26.00	15,609.30	NOS	4,05,841.80	
ITEM No.140		WATER SUPPLY					0.00			-	
ITEM No.141		ITEM NO :-67 Providing and fixing 75 mm dia stabiliser pipe/ P.V.C. soil vent/waste pipe and with necessary fixtures and fitting such as bends, tees, single junctions, slotted vent, clamps etc. complete SSR 42.51		20.00	50.00	50.00	120.00	637.35	RMT	76,482.00	
ITEM No.142		ITEM NO :-68 Providing and fixing on walls/ ceiling/ floor 15 mm dia. CPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete. SSR 42.55		40.00	50.00	60.00	150.00	279.30	RMT	41,895.00	
ITEM No.143		ITEM NO :- 69 Providing and fixing on walls/ceiling/floor 20 mm dia. CPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete SSR 42.56		20.00	80.00	80.00	180.00	325.50	RMT	58,590.00	
ITEM No.144		ITEM NO :-70 Providing and fixing on walls/ ceiling/ floor 25 mm dia. CPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete. SSR 42.57		30.00	50.00	60.00	140.00	393.75	RMT	55,125.00	

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		Proposed Repair and upgradation of studio 1,2,5,7,16 & Hospital at Goregaon Filmcity.									
Sr.No.		ITEM	Studio 1,2& Hospital	Studio 5	Studio 7	Studio 16	Total Qty	Rate	Per	Amount (INR)	
ITEM No.145		ITEM NO :-71 Providing and fixing on walls/ ceiling/ floor 32 mm dia. CPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete. SSR 42.58		20.00	30.00	30.00	80.00	452.55	RMT	36,204.00	
ITEM No.146		ITEM NO :-72 Providing and fixing on walls /ceiling/ floor 40 mm dia. CPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete. SSR 42.59		20.00	30.00	40.00	90.00	565.95	RMT	50,935.50	
ITEM No.147		ITEM NO :-73 Providing and fixing on walls/ ceiling/ floor 50 mm dia. CPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. SSR 42.60		20.00	30.00	40.00	90.00	778.05	RMT	70,024.50	
										-	
		FIRE								-	
ITEM No.148		ITEM NO:-74 Supplying & erecting Carbon Dioxide (CO2) fire extinguisher of 4.5 kg. capacity cartridge type conform to IS 2878 /15683 complete erected with necessary clamp made from 50 x 6 mm. M. S. flat with nut & bolts routed in wall complete. CSR 13-15-1		4.00	6.00	6.00	16.00	9,902.00	Nos.	1,58,432.00	
8		DOORS AND WINDOWS									
ITEM No.149	SSR 22-23 / Item No. 51.60 / Pg. 368	Solid Core Flush door Single leaf Providing and fixing factory made solid core flush door in single leaf 35 mm thick, decorative types, of exterior grade, as per detailed drawings, conforming to I.S.:2202 - 1962 (Revised) with approved face veneers on both faces with/without glazing and venetians in the positions shown on the drawings or as directed, all necessary beads, moulding and lipping, holdfasts, mat finish stainless steel fixtures fastenings, finishing with french-polish/ waxing complete. (without door frame).(Sample to be got approved from Ex.Engineer before use) Commercial Hard Wood shutter	66.15	0.00	0.00	0.00	66.15	2887.50	Sqm	1,91,008.13	
ITEM No.150	SSR 22-23 / Item No. 51.61 / Pg. 368	Solid Core Flush door Double leaf Providing and fixing factory made solid core flush door shutters in double leaves 35mm thick,decorative type of exterior grade, as per detailed drawings, conforming to I.S.: 2202 – 1966 (Revised) including approved face veneers on both sides, without glazing and venetians including mat finish stainless steel fixtures and fastening, stoppers and finishing with french polishing etc. (Excluding door frame)(Sample to be got approved from Ex. Engineer before use) Commercial Hard Wood shutter	56.70	0.00	0.00	0.00	56.70	3255.00	Sqm	1,84,558.50	
ITEM No.151	SSR 22-23 / Item No. 39.37 / Pg.251	Providing and fixing in position. (as per I.S.1868 / 1982) Aluminium sliding window of two tracks with rectangular pipe having overall dimension 63.50 x 38.10 x 1.02 mm at weight 0.547 Kilogram/One Running Metre. and window frame bottom track section 61.85 x 31.75 x 1.20 mm at weight 0.695 Kilogram/One Running Metre. Top and side track section 61.85 x 31.75 x 1.30 mm at weight 0.659 Kilogram/One Running Metre. The shutter should be of bearing bottom 40 x 18 x 1.25 mm at weight 0.417 Kilogram/One Running Metre. Inter locking section 40 x 18 x 1.10 mm at weight 0.469 Kilogram/One Running Metre. And handle section 40 x 18 x 1.25 mm at weight 0.417 Kilogram/One Running Metre. and top section 40 x 18 x 1.25 mm at weight 0.417 Kilogram/Running metre. As per detailed SSR Item No. : 39.37	31.20	0.00	0.00	0.00	31.20	5752.95	Sqm	1,79,492.04	
ITEM No.152	SSR 22-23 / Item No. 39.68 / Pg.259	Providing and fixing in position powder coated aluminium louvered windows / ventilator of various sizes with powder coating as per detailed drawing and specifications including aluminium frames 80 x 38 mm x 1.22 mm box type, 5 mm thick sheet glass louvers, of approved quality etc. complete. SSR Item No. : 39.68	4.86	0.00	0.00	0.00	4.86	3640.35	Sqm	17,692.10	

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			Proposed Repair and upgardation of studio 1,2,5,7,16 & Hospital at Goregaon Filmcity.									
Sr.No.		ITEM	Studio 1,2& Hospital	Studio 5	Studio 7	Studio 16	Total Qty	Rate	Per	Amount (INR)		
	SSR 22-23 / Item No. 51.60 / Pg. 368	Solid Core Flush door Single leaf Providing and fixing factory made solid core flush door in single leaf 35 mm thick, decorative types, of exterior grade, as per detailed drawings, conforming to I.S.:2202 - 1962 (Revised) with approved face veneers on both faces with/without glazing and venetians in the positions shown on the drawings or as directed, all necessary beads, moulding and lipping, holdfasts, mat finish stainless steel fixtures fastenings , finishing with french-polish/ waxing complete. (without door frame).(Sample to be got approved from Ex.Engineer before use) Commercial Hard Wood shutter										
ITEM No.153		SSR Item No : 51.60	0.00	0.00	0.00	0.00	0.00	2887.50	Sqm	-		
	SSR 22-23 / Item No. 39.78 / Pg. 261	Providing and fixing in position anodised (as per IS 1868/1982) Aluminium fixed staggered (Z Type) Ventilator with aluminium rectangular pipe 63 mm x 38.10 mm x 1.22 mm at weight 0.650 Kilogram/One Running Metre, Aluminium angle of size 15 mm x 15 mm x 1 mm,aluminium channel of 9 mm sizes, S.S.mosquito net of 304 Grade,4 mm thick float glass per detailed drawing and as directed by Engineer in charge etc.complete.										
ITEM No.154		SSR Item No : 39.78	0.00	0.00	0.00	0.00	0.00	4148.55	Sqm	-		
		ITEM NO . 27 Providing and applying melamine polish of required finish to the wood work by spray machine including knotting and preparing the even surface by scraping, applying French polish , scaffolding if required etc. complete. Note:The work to be executed on prior approval of Superintending Engineer will be necessary SSR 34.09/224		12.64	37.24	38.28	88.16	870.45	SMT	76,738.87		
ITEM No.155		ITEM NO. 28 Providing and fixing solid core flush door shutter in single leaf 32 mm thick decorative type of exterior grade as per detailed drawings approved face veneers 3 mm thick on both faces or as directed, all necessary beads, mouldings and lipping, wrought iron hold fasts, chromium plated fixtures and fastenings, with brass mortise lock, chromium plated handles on both sides, and finishing with French Polish etc. complete. SSR 39.09 / 246		14.25	41.70	41.58	97.53	3,232.95	SMT	3,15,309.61		
ITEM No.156		ITEM NO .29 Providing and fixing fiber glass reinforced polyster door shutter 35 mm thick as per IS 14856 (2000) (Reaffirmed 2006) without ventilator including chromium plated fixtures and fastening with chromium plated handles on both sides, etc complete. SSR 39.59/258		14.18	13.23	13.23	40.64	3,669.75	SMT	1,49,120.29		
ITEM No.157		ITEM NO. 30 Providing and fixing in position (as per 1868 / 1982) Alluminium sliding window of three tracks with rectangular pipe 95 x 38.10 x 0.90 mm at weight 0.637 kg/Rmt. with window frame bottom track section 92 x 31.75 x 1.30 mm at weight 1.070 kg/Rmt.. Top and side track section 92 x 31.75 x 1.30 mm at weight 0.933 kg/Rmt. The shutter should be of bearing bottom 40 x 18 x 1.25 mm at weight 0.417 kg/Rmt. Inter locking section 40 x 18 x 1.10 mm at weight 0.469 kg/Rmt. and handle and top section 40 x 18 x 1.25 mm at weight o.417 kg/Rmt. As per detailed drawings and as directed by Engineerincharge with all necessary Aluminium sections fixtures and fastenings such as roller bearing in nylon casting and self locking catch fitted in vertical section of shutter including 5 mm thick plain glass and aluminium mosquito net shutter with stainless steel jail with all required screws and nuts etc, complete. With colour Anodising with box SSR 39.41 / 253		24.38	21.60	24.00	69.98	5,777.10	SMT	4,04,252.57		
ITEM No.158		ITEM NO .31 Providing and fixing in position aluminium partly openable and partly fixed window of any size as per detailed drawing and as directed by Engineerincharge with all necessary aluminium sections including necessary fixtures and fastening with 5 mm thick float glass etc. complete. b) With powder coating Note While arriving at the rate of item of item weight at 6.90 Kilogram/Square Metre is considered. SSR 39.55/257		5.82	6.75	8.56	21.13	6,596.10	SMT	1,39,375.59		
ITEM No.159		ITEM NO .32 Providing and fixing in position b) Powder Coated aluminium fixed window fully glazed of any size as per detailed drawing and as directed by Engineerincharge with all necessary aluminium sections including necessary fixtures and fastening such as 5 mm thick clear float glass etc. complete. SSR 39.53B/257		8.13	8.13	8.13	24.38	6,001.80	SMT	1,46,293.88		
ITEM No.160												
9	INTERIOR WORK											

			Name of Client -MAHARASHTRA FLIM ,STAGE AND CULTURAL DEVELOPMENT CORPORATION LIMITED								
		Proposed Repair and upgardation of studio 1,2,5,7,16 & Hospital at Goregaon Filmcity.									
Sr.No.		ITEM	Studio 1,2& Hospital	Studio 5	Studio 7	Studio 16	Total Qty	Rate	Per	Amount (INR)	
	SSR 22-23 / Item No. 38.51 / Pg 243	Providing and fixing in position Gypsum board false ceiling with 12.5 mm thick Gypsum boards, screwed/fixed to the under structure of suspended G.I. Grid constructed and suspended from the main ceiling consisting of ceiling sections of size 25 x 50 mm maximum center to center distance of 600 milimetre perimeter channel and intermediate channels at maximum center to center distance 1200 milimetre galvanized grid should be fixed to reinforced cement concrete slab. The gypsum board should be fixed to galvanized iron grid with necessary screws. The boards should be taped and filled from underside to give smooth, seamless ceiling. The rate should include necessary additional ceiling sections and intermediate channels. Additional intermediate channels should be fixed to strap hangers for additional support to prevent strapping at every 1200 milimetre item to be completed in all respect including necessary sleeves for ducts finishing of joints cut outs, painting including labour, material, lifts etc. all complete.	0.00	0.00	0.00	0.00	0.00	1857.45	Sqm	-	
ITEM No.161		SSR Item No. : 38.51									
	SOR-23/R3-CS-WW-22	Providing and fixing false ceiling with eco-friendly light weight calcium silicate tiles of Spintone/cosmos surface textured "Aerolite " make or equivalent of size 595 x 595mm having 15 mm thick densified microlook edge and 100% humidity resistance, incombustible as per BS 476 Part IV and thermal conductivity 0.043 w/m" KC and NRC 0.50 placed in true horizontal level suspended grid of size 600x600 mm made from hot dipped GI steel sections on Silhouette profile, rotary stitched double webbed white with 6mm reveal profile (white/black), where in main T runner of size 24 mm x 38mm and 0.33 mm thick @ 1200mm center to center and cross T of size 24mm X 28 mm and 0.33 mm thick, 1200 mm long spaced between main tee at 600 mm centre to centre and secondary cross T of Size 24mm X 28 mm x 0.33 thick of length 600 mm to be inter locked at middle of the first cross T in each panel to form grids of 600 mm x 600 mm and resting on periphery wall profile wall section 24 mm x 24mm x 0.40 thickness and laying false ceiling for services like diffusers grills including cutting, making opening for light fitting, fixtures, smoke detectors etc. wherever required, main tee runner to be suspended from ceiling using G.I. soffit cleats of size 25 x 35 x 1.6 mm of required length fixed to the ceiling with 12.5mm dia and 50 mm long dash fastener, 4 mm dia G.I adjustable rods with good quality G.I level adjustment clips of 85 X 30 X 0.8mm spaced at 1200 mm center to center along main tee all complete at all heights as per specifications, drawings and as per direction of Engineer - in - Charge.									
ITEM No.162		SOR-23/R3-CS-WW-22	0.00	0.00	0.00	0.00	0.00	2374.00	Sqm	-	
	SSR 22-23 / Item No. 53.41 / Pg 477	PRIVIDING AND FIXING MODULAR ACOUCTICAL WOODEN WALL PANELLING: Of nominal width 100 / 150mm, having 80mm wide panel with 20mm reveal having a thickness of 15mm thickness and length 2400 mm. The panel shall be made of a Moisture resistant fibre board substrate having a minimum density of 595 Kg/m3 with a laminated facing as per the approved shade (Portland Maple, Sea Beech, Siam Wood & Mystique Walnut) and a melamine balancing layer on the reverse side. The panel shall have 0.7mm PVC edge banding along the length side with a similar finish as that of the face. The back of the panel shall have a black acoustic felt to cover the reveal of 20mm to attain an NRC of 0.4 for 150mm. / 0.5 for 100mm. module (Average value of Absorption Co-efficient readings taken at 250 Hz, 500 Hz, 1000 Hz and 2000 Hz) as per ASTM C423. The panels shall provide a Humidity Resistance (RH) of 70% with camber limit less than 1mm/1000mm and bow less than 1mm/300mm. The back of the panels shall be profile-grooved to receive 3600mm special main beam carrier with integrated factory fitted clips for installation. SUSPENSION: The panels shall be upward mounted on 24 mm wide T - section flanges having rotary stitching along the length of the beam with a web height of 43mm. The Main Beam shall have integrated (factory fitted) locking clips installed at 100 / 150mm centre to centre distance. The deflection loading of the main beam tested as per ASTM C635 (Deflection limit less than L/360) shall be at least 21.4kg/m. The end details of the main beam shall be made of pre hardened steel and fixed to the ends with 3 point fixing. All main beam to main beam connection shall have a pull out strength of more than 100kg. The T Sections shall be made of hot dipped galvanized steel of 100 gsm as per IS 277 (2003) and pre-painted steel with baked polyester paint with OT bending capability. Installation should be carried out as per Manufacturer recommended procedure. The grid shall be installed with suspension system of Manufacturer make.	0.00	0.00	0.00	0.00	0.00	11428.20	Sqm	-	
ITEM No.163		SSR Item No. : 53.41									
	NON SSR 6	Removing existing soundproofing panels along with ensulation materials to clean the surface of walls, stacking them at the designated place and dispose the same as directed.	5576.00	2676.00	3167.00	4327.00	15746.00	28.00	Sqm	4,40,888.00	
ITEM No.164		NON SSR 6									

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		Proposed Repair and upgradation of studio 1,2,5,7,16 & Hospital at Goregaon Filmcity.										
Sr.No.		ITEM	Studio 1,2& Hospital	Studio 5	Studio 7	Studio 16	Total Qty	Rate	Per	Amount (INR)		
	MCGM USOR Bldg. 31.01.23 Page No. 121 Item No. : R3-CS-WW-21-a	Providing & Fixing False Ceiling comprising of following material including fixing in galvanized steel sections with white color coated cap comprised of main tee 34 mm x 24 mm (heavy duty as per ASTM C - 635 standard tested) with pre-punched cross tee slots (at every 100 mm c/c) to be placed at 1200 mm c/c, suspended with 4 mm GI (TATA MAKE) straightened wire at every 1.2 mtr, other end of the wire provided with GI J hook & nut. All the false ceiling panels around the perimeter of the false ceiling & around the RCC columns shall rest on the perimeter G.I. molding of size 19 mm x 19 mm which is fixed to the walls with help of rawal plug & GI screw at the same level as false ceiling. The cross tee of 1200 mm length (26 mm x 24 mm wide Heavy duty) shall be locked in main tee at every 600 mm c/c. to form grid of 600 x 1200 mm. Further 600 mm long tee need to be locked in to 1200 mm tee to make the final grid of 600 mm X 600 mm, including making provision for cutouts and / or trap door for electrical and mechanical systems, etc complete as directed by Engineer In charge.	5576.00	2676.00	3167.00	4327.00	15746.00	1924.00	Sqm	3,02,95,304.00		
ITEM No.165		With Armstrong or equivalent Orcal Lay in metal ceiling System consisting of 600x600mm Lay in tiles of pre coated galvanised steel in 0.5/0.4 mm thickness in white colour with standard perforation of 2.5mm dia & open area of 16%. The back of the tile should have black acoustical fleece with NRC of 0.70 & CAC 36 with life time warrantee against sag in module size 595 mm X 595 mm at required height above FFL										
		MCGM USOR Bldg. 31.01.23 Page No. 121 Item No. : R3-CS-WW-21-a										
ITEM No.166		ITEM NO.33 Providing and fixing in position Gypsum board false ceiling with 12.5 mm thick Gypsum boards, screwed/ fixed to the under structure of suspended G.I. Grid constructed and suspended from the main ceiling consisting of ceiling sections of size 25 x 50 mm maximum center to center distance of 600 milimetre perimeter channel and intermediate channels at maximum center to center distance 1200 milimetre galvanized grid should be fixed to reinforced cement concrete slab. The gypsum board should be fixed to galvanized iron grid with necessary screws. The boards should be taped and filled from underside to give smooth, seamless ceiling. The rate should include necessary additional ceiling sections and intermediate channels. Additional intermediate channels should be fixed to strap hangers for additional support to prevent strapping at every 1200 milimetre item to be completed in all respect including necessary sleeves for ducts finishing of joints cut outs, painting including labour, material, lifts etc. all complete. SSR 38.51/243		156.46	118.45	277.96	552.87	1,857.45	SMT	10,26,930.24		
ITEM No.167		ITEM NO. 34 Providing water proofingin W.C. and bath including brick bat coba in all position including providing and laying 12mm bed dingin cement mortar 1:3 onvergin concrete slab with waterproofing compound @1 Kilogram/ per bag of cement laying brick bat coba of required thickness i n cm 1:5 with waterproofing compound 1Kilogram/ bag of cementgrouting and finishing the to play er with 20mm thick brick bed dingin cmmortar 1:3 with waterproofing compound 1Kilogram/ per bag of cement nd testing the treated portion for 48hours by pond test and covering ten years'guaranteeon requisite stamp paper including curing etc. complete. SSR 31.26 / 208		8.40	10.35	21.15	39.90	7,930.50	CMT	3,16,450.74		
ITEM No.168		ITEM NO. 35 Providing and applying water proofing treatment using acrylic polymer modified cement based water proofing coating with fibre glass mesh mixing at the rate of powder to liquid (2:1) by weight covering 9 to 10 sqm /kg with two coat using approved chemicals for masonry and concrete surface by brush covering 7 years guarantee on Stamp Papers etc. complete. SSR 31.09/206		11.41	9.67	9.67	30.75	645.75	SMT	19,856.81		
ITEM No.169		ITEM NO .36 Providing and fabricating structural steel work in rolled sections like joists, channels, angles, tees etc. as per detailed design and drawings or as directed including cutting, fabricating, hoisting, erecting, fixing in position making riveted / bolted /welded connections without connecting plates, braces etc. and including one coat of anticorrosive paint and over it two coats of oil painting of approved quality and shade etc. complete. SSR 23.01/173		0.50	0.50	0.50	1.50	1,06,936.20	MT	1,60,404.30		

		Name of Client -MAHARASHTRA FLIM ,STAGE AND CULTURAL DEVELOPMENT CORPORATION LIMITED									
		Proposed Repair and upgradation of studio 1,2,5,7,16 & Hospital at Goregaon Filmcity.									
Sr.No.		ITEM	Studio 1,2& Hospital	Studio 5	Studio 7	Studio 16	Total Qty	Rate	Per	Amount (INR)	
ITEM No.169A		ITEM NO :- 38 Supply and installation of cubicles of width and depth as per Athena Lite- SS Series Cubicles- Std Sizes (W x D x H): 900 mm x 1550 mm x 2105 mm, (Height is including 100 mm gap from bottom, Door Width- 600 mm specifications/ site drawings). Cubicle height to be 2105 mm. Made from solid grade compact high pressure laminate as per IS:2046 and EN-438 manufactured under high specific pressure > 5 MPa and temperature >120°C, All doors will be of single colour and made of 12 mm thick Merino HPL compact panel. The doors will have chamfered edges. Each door will be supported by 3 stainless steel made hinges affixed to the pilasters. Size of panels to be as per drawing. HARDWARE & ACCESSORIES are H shaped (Top) head frame structure made of extruded Aluminium grade 6063 T5-50 micron epoxy powder coated for surface protection, Size to be 125x70x5T. Corner joinery section, Size to be 40x16.5x1.8T. U- Channel Wall joinery section,Size to be 22x16x1.6T. Door stopper section, Size to be 21x12.5x1.6T. Spring loaded Butt Hinges made from Stainless steel grade 304. Surface finish to be matt type. Covers to be lacor coated.etc complete. SSR 51.162 / 395				13.20	13.20	11,196.00	SMT	1,47,787.20	
ITEM No.170		ITEM NO :- 37 Providing and fixing on site VENEER FINISH WALL PANELING made by using approved quality seasoned T.W. framing of 38 x 25 mm at approximately600 x 450 mm center to center or as per site conditions and covered by12 mm thick marine ply generally confirming to I.S.303 /I.S.710-1980 finished with 3 mm thick group match veneer of approvedquality with groove pattern including all necessary end mouldings, moulding pattern, and melamine polish. Antitermite treatment toplywood and woodwork etc.including all leads & lifts complete as perArchitects detailed drg. & design and as instructed by The Engineer In Charge (Basic Veneer Rate Rs.75/-per sft) MCGM/ R3-CS-WW-41		75.62	65.23	100.26	241.11	5,346.00	SMT	12,88,999.72	
ITEM No.171		ITEM NO :- 38 Providing and fixing bevelled edge mirror of superior glass (of approved quality) 6mm glass with 12mm bevelled including edge Polish with PVC backing complete with fixed to wooden cleats with C.P. brass screws and washerscomplete. MR.		63.75	43.57	80.31	187.63	2,187.00	SMT	4,10,356.43	
ITEM No.172		ITEM NO :- 39 Providing & Fixing Wooden shutters for Storage/Counter made of 18 mm thk plywood with all external surfaces finished with approved laminate of 1.0 mm thk & internal surfaces finished with white/offwhite laminate 0.8 mm thk. All wooden surfaces finished with melamine polish. etc complete As per drawing. Spec. As directed by Engineer-In-Charge MR		18.60	26.10	72.86	117.56	14,000.00	SMT	16,45,770.00	
ITEM No.173		ITEM NO :- 40 Providing & Fixing Dressing Table of Approved size .The Dressing table unit is made up 18 mm thk plywood with all external surfaces finished with approved laminate of 1.0 mm thk & internal surfaces finished with white/offwhite laminate 0.8 mm thk. All wooden surfaces finished with melamine polish. The unit has drawer and shelf. including Light Provision and complete as per specification. MR		26.01	18.74	41.90	86.65	23,600.00	SMT	20,44,999.00	
ITEM No.174		ITEM NO :- 41 Providing and applying pearl/ luster finish paint of approved colour and shade to the existing plaster surface including scaffolding, preparing the surface, applying the acrylic wall putti etc. complete. SSR 35.23 / 225		1.00	1.00	10.00	12.00	226.80	SMT	2,721.60	
ITEM No.175		ITEM NO :- 42 Providing and fixing 20 mm thick superior veneer board pelmet box 150 to 200 mm wide to doors or window frames including 20mm dia. Aluminium curtain rod with sockets and finishing with french polishing (without top)etc. complete. 37.14/231		12.50	11.03	22.23	45.75	3,687.60	SMT	1,68,707.70	
ITEM No.176		ITEM NO :- 43 center table Providing and supplying canter table of required size with top made of 8mm thick clear toughened glass with bevelled edge from bottom edge of the glass border and vertical edge with polish etc. complete. Under structure made of 25mm thick Marine ply (IS 710 : 2010) with all exposed edge finished with 2mm thick machine pressed PVC edge banding in matching colour. (Rehau Make/or Equivalent) for better impact resistance. Nylon button stopper to hold glass top in position, Nylon bushers etc. complete. MCGM R3-CS-FUR-10-a		6.00	9.00	12.00	27.00	6,426.00	NOS	1,73,502.00	

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		Proposed Repair and upgradation of studio 1,2,5,7,16 & Hospital at Goregaon Filmcity.									
Sr.No.		ITEM	Studio 1,2& Hospital	Studio 5	Studio 7	Studio 16	Total Qty	Rate	Per	Amount (INR)	
ITEM No.177		ITEM NO :- 44 CABIN SOFA Providing and supplying wooden sofa made with minimum 19mm.Marine ply (IS 710 : 2010) structure and internal frame work made of C.P. teak / Maranti wood seat made with minimum 19mm. Marine ply (IS 710 : 2010) and cushion made with foam of 150mm thick - 32 density on seat covered with 14mm thick - 18 density foam. Back made with wooden frame of minimum 50mm X40mm with 4 mm. ply and covered with foam of 100mm thick -32 densities covered with 14mm thick - 18 density foam for back extra support to the shape all foam of seat and back covered with tapestry approved by E-I-Charge. (Basic rate Rs. 450/- metre.) Handle made with wooden frame with box of 12mm. ply covered with 14mm thick -18 density foam with tapestry etc. complete. MCGM/R3-CS-FLIR-17-a / 1 seater		8.00	18.00	10.00	36.00	17,955.00	NOS	6,46,380.00	
ITEM No.178		ITEM NO .45 Sofa Set 3+1+1 Providing & fixing Sofa Set 3+1+1 Brown and Cream leather DIMENSION Length: 182.5 (cms) Breadth (cms): 100 (cms)Height (cms): 100 (cms) Weight (Kilograms): 66 (Kilogram) Seating Capacity: Five Seat SSR 51.53/366		8.00	3.00	11.00	22.00	41,592.60	NOS	9,15,037.20	
ITEM No.179		ITEM NO .46 Providing and Fixing Roliar Blinds AMI Make or approved make & shade of 38mm round Aluminium channel with Blackout fabric & telting with chain (Ball) system with all necessary fixtures and fitting etc. complete. (Sample to be final by Engineer In-charge prior execution of work) SSR 51.19/355		23.28	10.80	22.00	56.08	2,259.60	SMT	1,26,718.37	
ITEM No.180		ITEM NO. 47 Providing & Arrangemnt of High Back, Synchronized Mechanism with Multiple Locking, Adjustable Armrest, Gaslift for Seat height adjustment, Standard 5-prong P/Nylon Base with Leatherite Upholstery SSR 51.40/359		20.00	20.00	38.00	78.00	18,239.55	NOS	14,22,684.90	
ITEM No.181		ITEM NO. 48 providing and fixing laser cut 3mm ss later of height 24 inches with stud weld and back side fixing in wall with chemical grouting all later powder coated all other necessary hardware fitting. MR		24.00	24.00	24.00	72.00	201.00	INCH /LATER	14,472.00	
ITEM No.182		ITEM NO .49 Stainless steel nameplate : Providing and Fixing the 150mmx50mm Stainless steel nameplate by requirement of Department. PUNE/PWD/187597 64-14		6.00	10.00	15.00	31.00	275.00	JOB	8,525.00	
ITEM No.182 A		ITEM NO :-51 Providing and fixing Glass Partition of 12 mm toughen glass and sliding fitting with c bracket and required hardware handle and stopper with installation including operating hardware, SS patch fittings, fabricated long length satin finish SS 304 handles, patchlock , floor springs etc., complete as directed by the architect MR			23.63	26.57	50.19	14,050.00	SMT	7,05,169.50	
ITEM No.183		ITEM NO.50 Refixing C.I. and UPVC vent , soil, waste and rain water pipe of any size including cleaning and making good masonry of walls cornices etc. before fixing including fitting such as W.I. clamps, accessories of approved make with scaffolding etc. complete. MCGM/R3-CS-RM-76		100.00	60.00	60.00	220.00	182.00	RMT	40,040.00	
ITEM No.184		ITEM NO:-51 Providing LED BULB 5W or7W , 230v, 50 Hz having colour temp up to 6500k complete erected with mains and required switchgears with continuous earth wire cpmplete as per specification. MR		225.00	225.00	200.00	650.00	297.00	NOS	1,93,050.00	
ITEM No.185		ITEM NO:-52 Supplying and erecting Recess mounted 10-15 W LED wall washers/Spot Light/updown Light, tilted outwards /swivels/flush to wall to offer best illumination on the wall with any colour with driver complete. (Including Compatible Driver) MR		35.00	40.00	50.00	125.00	2,565.00	NOS	3,20,625.00	

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			Proposed Repair and upgardation of studio 1,2,5,7,16 & Hospital at Goregaon Filmcity.									
Sr.No.		ITEM	Studio 1,2& Hospital	Studio 5	Studio 7	Studio 16	Total Qty	Rate	Per	Amount (INR)		
ITEM No.186		ITEM NO:-53 Supplying and erecting LED square / circular 15W-18W automatic motion sensor light downlighter/pannel concealed as per specification provided by the engineer in charge.complete MR		1.00	9.00	18.00	28.00	3,720.00	NOS	1,04,160.00		
ITEM No.187		ITEM NO:-54 Supplying and erecting Recess mounted 30W LED wall washers/Spot Light/updown Light, tilted outwards /swivels/flush to wall to offer best illumination on the wall with any colour with driver complete. (Including Compatible Driver) MR		2.00	10.00	10.00	22.00	5,130.00	NOS	1,12,860.00		
ITEM No.188		ITEM NO:- 55 Supply installation testing and commissioning of 4MP, Full HD, 1/2.8 type CMOS image sensor, Vari Focal : 9.0 mm to 22 mm, H.265 / H.264 & MJPEG triple-stream encoding, Max. IR LEDs length 30 m , IP66 rated, 25/30fps@1080P (1920 ×1080), Support ICR for day time and night time operation, Zoom ratio :2.4x Optical (Motorized zoom/ Motorized focus), Bullet Camera. MR.		4.00	4.00	10.00	18.00	33,412.00	NOS	6,01,416.00		
10	REBARING AND ANCHORING BOLTS											
ITEM No.189	SOR-23/R3-CS-SS-07/Pg 119	Providing and fixing the Chemical Anchor Fasteners as specified below of Hilti Make or equivalent confirming to IS 1367 (Part 3) at required locations and level including drilling the hole, cleaning with blow pump and anchoring the bolt with chemical as per manufacturers specifications etc. complete as directed by Engineer In Charge.										
	SOR/R3-CS-SS-07-b/Pg 119	M12 x 110 foil capsule (HVU) & M12 x 160 Rod	0.00	795.00	806.00	638.40	2239.40	327.00	Nos	7,32,283.80		
ITEM No.190	SOR/R3-CS-SS-07-c/Pg 119	M16 x 125 foil capsule (HVU) & M16 x 190 Rod	0.00	265.00	269.00	957.60	1491.60	433.00	Nos	6,45,862.80		
	SOR/R3-CS-SS-07-d/Pg 119	M20 x 170 foil capsule (HVU) & M20 x 240 Rod	0.00	265.00	269.00	0.00	534.00	579.00	Nos	3,09,186.00		
ITEM No.191		SOR/R3-CS-SS-07-d/Pg 119										
11	ELEVATION TREATMENT											
ITEM No.192	SSR 22-23 / Item No. 51.235 / Pg 416	Supply, fixing and installation of 4mm thick Aluminium Composite Panel (ACP) of approved colour for external cladding in combination of solid and metallic colours, including all necessary Framework, support and complete weather sealing as per architectural drawing. The Aluminium Composite Panel (ACP) should be made out of thermoplastic core of low-density polyethylene LDPE (100% virgin mix), sandwiched between two aluminium sheets of ALLOY GRADE- 5000 series, each not less than 0.50 mm thick, total thickness of aluminium composite panels not to be less than 4 mm, the exposed surface thereof shall have Stove lacquered finishing coat not less than (26 + - 2) micron (containing minimum 70% kynar 500 based PVDF) of colour and shade as per architectural design. The inside surface (facing the building exterior surface)shall have polyster based powder coating not less than 25 Micron with protective peel-off foil on the exterior face (peel off film will in no case leave any adhesive mark over the composite panel surface after it is peeled off). The supporting framework shall be made out of 50 mm X25mm X 3mm thick Aluminium section to be spaced horizontally and vertically for fixing of panel of size 900 mm X 1200 mm and fixed to the building structure as per design through 50mm X50mm X5 mm MS angle clamps prefixed to masonry or slab, columns with Hilti make anchor fastener screws. The fixing of panel to be done with the help of VHB tapes and screws and all the sealing of joints to be done with weather sealent Silicon as directed by Engineer-in-charge. (Prior permission of S.E. is necessary before inclusion of this item in estimate)	3370.00	0.00	0.00	0.00	3370.00	3347.00	Sqm	1,12,79,390.00		
		SSR 22-23 / Item No. 51.235 / Pg 416										

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			Proposed Repair and upgradation of studio 1,2,5,7,16 & Hospital at Goregaon Filmcity.									
Sr.No.		ITEM	Studio 1,2& Hospital	Studio 5	Studio 7	Studio 16	Total Qty	Rate	Per	Amount (INR)		
	SOR 2023 / R3-CS-AW-20	Design, supply, fabrication & erection of approved structural glazing using specially designed Vertical Mullion & Horizontal Transoms of Required size & as per architect's approved Grid work with aluminium rectangular sections to be fixed in masonry at interval of each floor on concrete slab with 80 mm x 100 mm x 5mm thick galvanized M & Langle fixed on wall side with raw bolt size of 10 mm x 90 mm with necessary bolts & washers / nuts for the plumb the linelevels. the glass panel's shall be fixed on a specially designed architectural sub- frame using Dow Corning 995 strural sealant & GE Silicon (SSG - 4000) sub frame would be fixed on main frame grid in amanner that no aluminium frame is visible from outside & groovesbetween the glass panel shall be filled with weather sealant of Dow corning 789 / GE Sil proof to made it air tight, water proof & dustfree thus giving it a flush look outside. Glass will be of 6 mm thick Glaverbel reflective tyne with heat strengh ened toughened.	2204.00	0.00	0.00	0.00	2204.00	4168.00	Sqm	91,86,272.00		
ITEM No.193		SOR 2023 / R3-CS-AW-20										
	RA for GFRP	Designing, providing & Fixing (at all levels) in position factory made precast Glass fiber reinforced polymer (GFRP) and structural reinforcing the same as required as per approved manufacture's specification and as per approved drawings. The thickness of GFRP panel should not be less than 5mm with minimum 5 m thick GRP pads acting as inbuilt stiffeners, Fire resistant Resin of GP grade shall be used of approved make. Colour and texture should be approved by Engineer in charge. Fixing of Including making frame over the Primary main structure by using suitable MS sections. GFRP panel on primary structure shall be done by dry cladding method with the help of SS screw fixtures, MS angle cleats, fissures plug and Dowel pin etc. in proper alignment, line and level as per the approved drawing, Finishing with GFRP powder filling the joints with paintable silicon sealant neatly between GFRP panel and primary structure to provide one piece look including moulding and cornice at junction of column and beams as per approved drawing, including necessary MS fabrication work to support GFRP structure, necessary scaffolding at all levels and staging etc. Including painting with one coat of primer and minimum two coats of paint in Duco finished with one protective coat of lacker, complete as per manufactures specification. The rate shall include all necessary scaffolding, anchoring/bolting and necessary civil/ fabrication work as per Standard specifications as per approved design and as directed by Engineer-in-charge. GFRP decorative emblem with details shall be as per drawing and carvings as shown in 3 dimension up to a thickness of 150 mm with scroll designs, floral designs, dentals, flutings etc., Item to include checking all surfaces for proper line and level etc. complete. Item includes preparing up to 2 samples for the Architects approval. Item to include making of the clay model and mould for the decorative cornice and supply of the decorative cornice as per approved sample executed in fiber glass material.	0.00	3033.81	2245.10	2815.00	8093.91	11000.00	Sqm	8,90,33,013.28		
ITEM No.194		RA for GFRP										
12	MISCELLANIOUS WORK											
	SSR 22-23 / Item No. 31.05 / Pg 205	Providing water proof bedding for flooring of Bath and WC 25 mm thick in C.M. 1:3 including using approved water proofing compound in specified proportion as per manufacturers specifications for per bag of cement including leveling, curing and covering 10 years guarantee on court fee stamp paper of Rs.500/- including ponding test etc.complete. As directed by Engineer in charge.	0.00	0.00	0.00	0.00		477.01	Sqm	-		
ITEM No.195		SSR Item No. : 31.05										
	SOR 2023 / R3-CS-SS-31/ Pg. No. 125	Providing, fabricating & fixing in position S.S. 304 grade pipe railing for staircase consisting of 18 gauge 50 mm dia. S.S.pipe as top rail,18 gauge 40 mm dia S.S. pipe as verticals, 18 gauge 25 mm dia as secondary rails, including fixing the verticals to the staircase pardi by means of base plate with socket & anchor fasteners,grinding the welded portion smooth,buffing, protecting the railing members by means of wrappers during construction etc. complete as directed by the Engineer in charge	0.00	0.00	0.00	0.00		2892.00	RMT	-		
ITEM No.196		SOR 2023 / R3-CS-SS-31/ Pg. No. 125										
	SSR 22-23 / I.N. 23.01 / Pg. 173 . [Bd.C.2 Page Number 275]	Providing and fabricating structural steel work in rolled sections like joists, channels, angles, tees etc. as per detailed design and drawings or as directed including cutting, fabricating, hoisting, erecting, fixing in position making riveted / bolted /welded connections without connecting plates, braces etc. and including one coat of anticorrosive paint and over it two coats of oil painting of approved quality and shade etc. complete.	112.16	43.90	35.96	67.16	259.18	106936.20	MT	2,77,15,580.56		
ITEM No.197		SSR Item No. : 23.01										
	SOR-23/R3-CS-RM-143/242	Providing & Fixing 15 mm thick solid white acrylic laser cut out Logo etc complete .(as per client / Architectural approval)	0.00	0.00	0.00	0.00		27.00	Sq.In	-		
ITEM No.198		SOR-23/R3-CS-RM-143/242										

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Proposed Repair and upgradation of studio 1,2,5,7,16 & Hospital at Goregaon Filmcity.										
Sr.No.	ITEM	Studio 1,2& Hospital	Studio 5	Studio 7	Studio 16	Total Qty	Rate	Per	Amount (INR)	
	SSR 22-23 / Item No. 51.67 / Pg. 370	Directional signage Design, supply, fabrication and fixing acrylic multilingual Braille (raised dots) directional signboards of size 6" x 9" designed as per accessibility standards and having 4mm thick acrylic base plate with Upper Case San Serif words made of white acrylic non glare cut out letters of height 15mm raised not less than 0.8mm above base plate and the equivalent word written in Hindi with Devnagri non glare acrylic letters of height 15mm raised not less than 0.8mm above base plate and having a non glare acrylic cut arrow pointing in the required direction. Each signboard to be fixed as per manufacturers specifications on the wall at the approved location and at a height of 1200mm from FFL and as per the directions by the engineer in charge.	3.00	1.50	2.00	3.00	9.50	1714.65	No.	16,289.18
ITEM No.199		SSR Item No. : 51.67								
	SSR 22-23 / Item No.7.01 / Pg. 69	Providing and casting insitu or precast tapering R.C.C. M-20 Barrier type Kerb without gutter (as per IRC 861983) embedded 125 mm below ground level over M-10 PCC finished neatly with C.M. 1:2, setting the same in C.M. 1:2, including the required excavation in any strata and removing the excavated stuff any where in city and redoing the surface as specified and directed by Engineering In-charge. Using Concrete Batching and Mixing Plant.	185.00	120.00	0.00	30.00	335.00	581.70	Rmt	1,94,869.50
ITEM No.200		SSR Item No. : 7.01								
	SSR 22-23 Page No. 560 Item : Statement C	Disposal of building rubbish / malba / similar unserviceable, dismantled or waste materials by mechanical means including loading, transporting, unloading to approved municipal dumping ground or as approved by Engineer-in-charge, beyond 50 m initial lead, for all loads including all lifts involved. For 25 Km Lead	79.00	26.76	31.67	43.27	180.70	616.35	Cum	1,11,374.21
ITEM No.201		SSR 22-23 Page No. 560 Item : Statement C								
	SSR 22-23 / Item No. 51.51 / Pg. 365	Stool for Lab and Class-IV Providing and fixing 4 legged Lab stool, Legs made of 16 Guage 45 MM Outer dimension MS Pipe, Duly painted, With a 304 Grade Stainless steel 12 inch wide seat with a 1 inch collar, Height adjustment via a screw. as per design and drawing and instructions of Engineer in charge.	23.00	0.00	0.00	0.00	23.00	2747.85	No.	63,200.55
ITEM No.202		SSR 22-23 / Item No. 51.51								
	SOR/R3-CS-FUR-30/Pg 260	Providing and supplying center pivot, revolving, Mid back chair Depth-45cm, width-50cm, height- 105cm to 115cm & seat height- 45cm to 55cm. (+/- 2cm) with five legged metal / moulded nylon basewith push back arrangement. Chairs shall have high density moulded,360 revolving on suitable base, gas lift , heavy duty twin wheel castors to take min 80 kg/castor with two -pneumatic height adjustment one piece moulded type polypropylene armrest etc. complete. The chair shall be provided with approved tapestry upto Rs 300/m with necessary beading wherever required. All metal work shall be Epoxy Polyester Powder Coated and as directed by Architect in charge. The over all appearance of the product shall be as per photograph. All metal work shall be Epoxy Polyester Powder Coated and as directed by Architect in charge	17.00	0.00	0.00	0.00	17.00	12500.00	No	2,12,500.00
ITEM No.203		SOR/R3-CS-FUR-30/Pg 260								
	SOR/R3-CS-FUR-23/Pg 258	Providing and Supplying Reception table of overall size 1650 X 750X 750 mm made out of 19 mm thick Marine ply (IS 710 : 2010) top Sides and apron having Top and bottom horizontal patta. The table shall be externally and internally finished with 4mm thick group match veneer pattern with grooves including necessary lipping moulding and hardware.5 mm thick toughened glass modesty shall be provided with 50 X 30 mm BTC wood frame etc. complete. Antitermite treatment to marine ply and all wooden accessories on both sides for full faces before the joineries melamine polish on french polish base coat, hardware as per drawings. etc. all complete as per Architects Drawing.	1.00	0.00	0.00	0.00	1.00	40512.00	No	40,512.00
ITEM No.204		SOR/R3-CS-FUR-23/Pg 258								
	SOR/R3-CS-FUR-05/Pg 253	Providing table top of required size fixed at a standard table top height of up to 750mm min. (including table top thickness) to Modular partition. Table top shall be made of 25mm thick Marine ply (IS 710 : 2010) , FIRE RETARDENT laminate on all sides / surfaces. All edges of the work surface shall be provided with machine pressed PVC edge banding of 2mm thickness etc. complete. Table top to be principally mounted from the partition frame with suitable MS powder coated brackets which should be integrated into the partition frame etc. complete.								
ITEM No.205										
ITEM No.206	R3-CS-FUR-05-a	900 X 450	1.00	0.00	0.00	0.00	1.00	2106.00	No	2,106.00
		R3-CS-FUR-05-a								
ITEM No.207	R3-CS-FUR-05-b	900 X 600	1.00	0.00	0.00	0.00	1.00	2808.00	No	2,808.00
		R3-CS-FUR-05-b								
ITEM No.208	R3-CS-FUR-05-c	1050 X 450	0.00	0.00	0.00	0.00		2457.00	No	-

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			Proposed Repair and upgradation of studio 1,2,5,7,16 & Hospital at Goregaon Filmcity.									
Sr.No.		ITEM	Studio 1,2& Hospital	Studio 5	Studio 7	Studio 16	Total Qty	Rate	Per	Amount (INR)		
		R3-CS-FUR-05-c										
ITEM No.209	R3-CS-FUR-05-d	1050 X 600	6.00	0.00	0.00	0.00	6.00	3276.00	No	19,656.00		
		R3-CS-FUR-05-d										
ITEM No.210	R3-CS-FUR-05-e	1200 X 450	1.00	0.00	0.00	0.00	1.00	2808.00	No	2,808.00		
		R3-CS-FUR-05-e										
ITEM No.211	R3-CS-FUR-05-f	1200 X 600	1.00	0.00	0.00	0.00	1.00	3744.00	No	3,744.00		
		R3-CS-FUR-05-f										
ITEM No.212	R3-CS-FUR-05-g	1350 X 600	0.00	0.00	0.00	0.00	0.00	4212.00	No	-		
		R3-CS-FUR-05-g										
ITEM No.213	R3-CS-FUR-05-h	1500 X 600	0.00	0.00	0.00	0.00	0.00	4680.00	No	-		
		R3-CS-FUR-05-h										
ITEM No.214	SOR/R3-CS-FUR-07/pg 254	Providing table top of required size fixed at a standard table top height of upto750mm min (including table top thickness). Table top shall be made of 25mm thick Marine ply (IS 710 : 2010), FIRE RETARDENT laminate on all sides/ surfaces. All edges of the work surface shall be provided with machine pressed PVC edge banding of 2mm thickness etc. complete. Table top to be principally mounted from the partition frame with suitable MS powder coated brackets which should be integrated into the partition frame. Gable End Supports of approved profile and design between tables consisting of 18mm Marine ply (IS 710 : 2010) panels duly edge bound (to be integrated with the partition. Adjustable levellers to be provided to supports.) etc. complete.										
	R3-CS-FUR-07-b	1500 X 600 & side 900 x 600	5.00	0.00	0.00	0.00	5.00	13608.00	No	68,040.00		
		R3-CS-FUR-07-b										
ITEM No.215	SOR/R3-CS-FUR-27/pg 259	Providing and positioning bunk bed made out of approved colour,powder coated, M.S. (IS 513:2008) pipe frame and angle supports.Two end frames shall be made out of 16 guage and 40 mm dia M.S pipes as vertical supports and 16 guage 25 mm dia M.S pipes along with 40 x 40 x 6 mm M.S angle lateral frame to recieve 12mm thk marine grade ply base for 100 mm thk ,100 density coir mattress etc. complete. Edges of the base ply shall be sealed with 6mm thk T.W lipping. Two nos of 25 mm dia 16 guage pipe supports shall be provided to support both the base ply and ladder and with necessary Nylon bushers for pipe ends touching to floor and with approved colour powder coating and complete as per the instructions of the Architect or Engineer in charge. Note: This item shall be made in knock down type of arrangement.	16.00	0.00	0.00	0.00	16.00	66018.00	No	10,56,288.00		
		SOR/R3-CS-FUR-27/pg 259										
ITEM No.216	SOR/R3-CS-RM-110/pg	Stitching of Curtains for windows and doors and fixing the same withapproved fabric and buttons, accessories, etc complete.	2.00	0.00	0.00	0.00	2.00	253.00	Sqm	506.00		
		SOR/R3-CS-RM-110/pg 222										
ITEM No.217	SOR/R3-CS-FUR-15/pg 256	Providing and supplying Modular CUPBOARD made up of required size. Top made of 25mm Marine ply (IS 710 : 2010), having post formed decorative laminate of 0.8mm on top and FIRE RETARDENT laminate on all sides / surfaces etc. complete. Sides, Sides in 25mm thk Marine ply (IS 710 : 2010). Adjustable shelf made in 25mm thk Marine ply (IS 710 : 2010) placed on standard shelf pins etc. complete. Storage Back made of 9mm thick Marine ply (IS 710 : 2010) etc. Sides, Shutters, Bottom, adjustable shelf, finished 2mm thick machine pressed PVC Edge banding of required size etc. Hardware set to include 110 degree opening self- closing box hinges, Counter Sunk screw, S.S.Brush Finished, Handles L' Clips Selves support etc. complete. Multipurpose lock, Levelling Bolt with inserts etc. complete. Aluminium furniture feet – Round tube, diameter 40 mm with 100 mm height with suitable finish to match handles" Shape SS Brush finished handles as indicated in the drawing, suitable locking provision etc. complete.										
ITEM No.218	R3-CS-FUR-	900 x 450 x 1200 - 2 SHELVES	8.00	0.00	0.00	0.00	8.00	16065.00	No	1,28,520.00		
		R3-CS-FUR-15-a										
ITEM No.219	R3-CS-FUR-	900 x 450 x 1800 - 4 SHELVES	22.00	0.00	0.00	0.00	22.00	23814.00	No	5,23,908.00		
		R3-CS-FUR-15-e										
ITEM No.220	RA for Dustbin	Providing Step-On Pedal Dustbin/Waste Bin with lid constructed of 100% virgin, Strong and durable plastic of approved make and colour Capicity 6 ltr/10 Ltr										
ITEM No.221		Capacity 6 lit	16.00	0.00	0.00	0.00	16.00	400.00	No	6,400.00		
		RA for Dustbin										
ITEM No.222		Capacity 10 lit	0.00	0.00	0.00	0.00		450.00	No	-		

			Name of Client -MAHARASHTRA FLIM ,STAGE AND CULTURAL DEVELOPMENT CORPORATION LIMITED								
		Proposed Repair and upgradation of studio 1,2,5,7,16 & Hospital at Goregaon Filmcity.									
Sr.No.		ITEM	Studio 1,2& Hospital	Studio 5	Studio 7	Studio 16	Total Qty	Rate	Per	Amount (INR)	
		RA for Dustbin									
	RA for storage Cabinet	Providing & fixing of Storage cabinet, made of 18mm thick commercial plywood of approved make on Storage top and fascia shall be finished with 4mm thick teak veneer & high gloss PU coat & made of 12mm thick plywood all outer sides & surfaces shall be finished 1mm thick laminate approved make & colour. All other finishes shall be done as per detail drawings and as per instructions of architect / owner. Sides & bottom shall be made of 18mm thick plywood & back side shall be made of 6mm thick plywood, intermediate shelf shall be made of 18mm thick plywood. Self top & bottom surface shall be finished with french polish. All the inside surfaces shall be finished with shall be finished 1mm thick laminate approved make & color/ enamel paint of approved make and color. The work shall be measured base on area of front elevation of each storage unit. The rate to include all materials, labour, transport, taxes, delivered and placed in position at site of work. As per approved hardware.	1.92	0.00	0.00	0.00	1.92	12000.00	Sqm	23,040.00	
ITEM No.223		SSR Item No. : 51.67									
13		HORTICULTURE WORK									
		Planting Shrubbery on Soft/Hard surface: Filling Red Hill Earth & Cow Dung Manure in the excavated area mixing in 2:1 proportion, watering, weeding after every watering before planting the shrub, leveling, providing and planting well grown, healthy, bushy shrubs including transport and unloading as per specified variety and sizes, planting at desired location and specified distances, maintaining for 1 month after completion of plantation and replacement of casualties till 1 month.									
ITEM No.224											
	SSR-23 /2(b)/ Item no 11/	Golden Duranta Bag size (10" x 10") Height Of Plant (30 cm to 45 cm)	0.00	30.00	30.00	0.00	60.00	36.75	No	2,205.00	
		SSR-23 /2(b)/ Item no 11/ Pg no 22									
	SSR-23 /2(b)/ Item no 11/ Pg no 2	Golden Duranta Bag size (10" x 10") Height Of Plant (30 cm to 45cm)	0.00	0.00	0.00	100.00	100.00	35.00	No	3,500.00	
ITEM No.224		SSR-23 /2(b)/ Item no 11/ Pg no 22									
	SSR-23 /11(a)/ Item no 11/	Fox tail palm Bag size (10" x 12") Height Of Plant (3 to 4 ft..)	0.00	10.00	10.00	0.00	20.00	220.50	No	4,410.00	
ITEM No.225		SSR-23 /11(a)/ Item no 11/ Pg no 37									
		POTTED PLANTS: Providing and displaying a combination of seasonal flower plants and indoor plants (minimum ht. 30 cm) developed fresh and healthy leaves in plastic pot to the satisfaction of client/ Architect. Scope includes adding good suitable plants with soil, new pots, garden cleaning, pots neatly placed in position, carrying of waste mulch, insert new garden soil with compost mixed, addition of cocopeat to hold moisture, all general garden care service. The period of the contract shall be six months. Plants will be property of owner after contract period. Activities included in the scope of work shall include strumming, laying, sweeping, watering, weeding, applying fertilizers, pesticides, planting trees/plants, cleaning and waste disposal. The required consumables for the service for the contract period 6 months shall include fertilizers, pesticides, seeds, good earth, plants/trees- flower, foliage, herb, shrub, bamboo etc., machinery, pots/container – plastic pots 12 inch dia. size. The service provider will quote cost inclusive of scope and selected consumables. List of approved plants and specification of plants is enclosed as under.									
ITEM No.226											
ITEM No.227	RA for Potted	Bird of Paradise Potted 3-4ft height	3.00	0.00	0.00	7.00	10.00	338.00	No	3,380.00	
		RA for Potted Plant									
ITEM No.228	RA for Potted	Areca Palm Potted 3-4ft height	3.00	50.00	0.00	7.00	60.00	338.00	No	20,280.00	
		RA for Potted Plant									
ITEM No.229	RA for Potted	Bougainvillea Potted 3-4ft height	3.00	0.00	30.00	0.00	33.00	238.00	No	7,854.00	
		RA for Potted Plant									
ITEM No.230	RA for Potted	Coleus potted 3-4ft height	4.00	0.00	0.00	7.00	11.00	188.00	No	2,068.00	
		RA for Potted Plant									
ITEM No.231	RA for Potted	Catharanthus– Pink and white Flower 3-4ft height	4.00	0.00	0.00	7.00	11.00	173.00	No	1,903.00	
		RA for Potted Plant									
	RA for Potted Plants	Artificial plants - Providing and fixing vertical garden mat made up of 100% pure PE Material with leaves including fixing the same on façade/walls at approved location with all necessary tools, tackles, Nails, Ties, fixtures and frames as per directions of engineer incharge. (size 600x400x30mm).	0.00	217.00	0.00		217.00	420.00	No	91,140.00	
ITEM No.232		RA for Potted Plants									
14		FURNITURE									

			Name of Client -MAHARASHTRA FLIM ,STAGE AND CULTURAL DEVELOPMENT CORPORATION LIMITED							
		Proposed Repair and upgradation of studio 1,2,5,7,16 & Hospital at Goregaon Filmcity.								
Sr.No.		ITEM	Studio 1,2& Hospital	Studio 5	Studio 7	Studio 16	Total Qty	Rate	Per	Amount (INR)
	SOR-23/R3-CS-FUR-30/260	Providing and supplying center pivot, revolving, Mid back chair Depth-45cm, width-50cm, height- 105cm to 115cm & seat height- 45cm to 55cm. (+/- 2cm) with five legged metal / moulded nylon base with push back arrangement. Chairs shall have high density moulded, 360 revolving on suitable base, gas lift , heavy duty twin wheel castors to take min 80 kg/castor with two - pneumatic height adjustment one piece moulded type polypropylene armrest etc. complete. The chair shall be provided with approved tapestry upto Rs 300/m with necessary beading wherever required. All metal work shall be Epoxy Polyester Powder Coated and as directed by Architect in charge. The over all appearance of the product shall be as per photograph. All metal work shall be Epoxy Polyester Powder Coated and as directed by Architect in charge.	0.00	0.00	0.00	0.00	0.00	12500.00	No.	-
ITEM No.233		SOR-23/R3-CS-FUR-30								
	RA For Slotted Angle racks	Supply, Installation, Testing & Commissioning of Adjustable Slotted angle racks for Material storage in dressing rooms , design shall be strictly as per the drawings, made from 20 gauge plates and 14 gauge angles. Rate shall include all necessary accessories, hardware components, transportation, installation, structural components, making good the scratches made during installation etc. as directed by the Engineer In charge. RACK DIMENSIONS - 1200 MM (length) X 400 MM (width) X 2100 MM (height) It will be divided into 4 (four) compartments / loading levels. Each compartment shall have load bearing capacity of each rack 100 Kg	0.00	0.00	0.00	0.00	0.00	3500.00	No.	-
ITEM No.234		RA For Slotted Angle racks								
	SOR-23/R3-CS-PS-31/168	Providing and fixing mirror of superior glass (of approved quality) and of required shape and size with plastic moulded frame of approved make and shade with 6 mm thick hard board backing : (Rectangular shape 1500x600 mm)								
		Rate for 1500x450 is 2270 i.e, Rate for 1500x600 = (1500*600)/(1500*450)*2270=3026.67								
ITEM No.235		SOR-23/R3-CS-PS-31	0.00	0.00	0.00	0.00	0.00	3026.67	No.	-
	SOR-23/R3-CS-FUR-05/253	Providing table top of required size fixed at a standard table top height of up to 750mm min. (including table top thickness) to Modular partition. Table top shall be made of 25mm thick Marine ply (IS 710 : 2010) , FIRE RETARDENT laminate on all sides / surfaces. All edges of the work surface shall be provided with machine pressed PVC edge banding of 2mm thickness etc. complete. Table top to be principally mounted from the partition frame with suitable MS powder coated brackets which should be integrated into the partition frame etc. complete. (1200 X 600)								
ITEM No.236		SOR-23/R3-CS-FUR-05-f	0.00	0.00	0.00	0.00	0.00	3744.00	No.	-
	SSR-23 /51.55/ Pg no 366	Single Bed @ 2025LX 1000DX 650H Providing and fixing Single Bed of Size 2025Lx1000Dx650H with mattress and pillow. Understructure: - The legs are made of Square tube of size 25 x 25mm made out of MS with a thickness of 1.2 mm. The legs should have corner brackets welded to it at two levels. The corner brackets are made of 2mm thick CRCA having a L shaped structure to join the side panels and headboard to the leg. Three nos. of Horizontal stiffeners are provided at equal intervals. The stiffeners are made of Square tube of size 25 x 25mm made out of MS with a thickness of 1.2mm. The middle Horizontal Stiffener has a leg attached to it to transfer the load to the ground and add to the strength and stability of the complete structure. This leg is also made of Square tube of size 25 x 25mm made out of MS with a thickness of 1.2mm. All Metal components to undergo 7 tank treatment process and should be powder coated to the thickness of minimum 50 Microns DFT. Side Panel: - The side panels are made up of 18mm thick Prelam Particle Board with both side decorative laminate. All exposed edges are sealed with 2mm thick PVC edge Banding. The overall width of the side panel is 150mm. The side panels have 18mm thick prelaminated particle board Baton running for required length to add rigidity to the structure. Head Board :- The head board is made up of 18mm thick Prelam Particle Board with both side decorative laminate. All exposed edges are sealed with 2mm thick PVC edge Banding. The head board size to be considered as 1000 x 650mm. Foot Board :- The foot board is made up of 18mm thick Prelam Particle Board with both side decorative laminate. All exposed edges are sealed with 2mm thick PVC edge Banding. The head board size to be considered as 1000 x 450mm. Bed Base: - The Bed Base is made up of 12mm thick Prelam Particle Board with both side White laminate.								
ITEM No.237		SSR Item No : 51.55	0.00	0.00	0.00	0.00	0.00	20335.35	No.	-
	SSR-23 /51.56/ Pg no 367	Providing & Fixing Dressing Table of size 600LX 900DX 750H.The Dressing table unit is made up of 18mm thick Prelam Particle Board with both side decorative laminate. All exposed edges are sealed with 2mm thick PVC edge Banding. The unit has one drawer and one shelf. The dressing table has a mirror of 4mm thick pasted on 18mm thick prelm particle board attached to the base unit. The mirror size considered is 900 x600 htx 4(t). The mirror has been pasted using high quality 3M sticker Mirror to have fframe metal /prelaminated board .								
ITEM No.238		Rate for 400x1800 is17352 i.e, Rate for 600x(750+600) = (600*1350)/(400*1800)*17352=19521								
		SSR Item No : 51.56	0.00	0.00	0.00	0.00	0.00	20497.05	No.	-

			Name of Client -MAHARASHTRA FLIM ,STAGE AND CULTURAL DEVELOPMENT CORPORATION LIMITED									
		Proposed Repair and upgardation of studio 1,2,5,7,16 & Hospital at Goregaon Filmcity.										
Sr.No.		ITEM	Studio 1,2& Hospital	Studio 5	Studio 7	Studio 16	Total Qty	Rate	Per	Amount (INR)		
	SOR-23/R3-CS-FUR-15/256	Providing and supplying Modular CUPBOARD made up of required size. Top made of 25mm Marine ply (IS 710 : 2010), having post formed decorative laminate of 0.8mm on top and FIRE RETARDENT laminate on all sides / surfaces etc. complete. Sides, Sides in 25mm thk Marine ply (IS 710 : 2010). Adjustable shelf made in 25mm thk Marine ply (IS 710 : 2010) placed on standard shelf pins etc. complete. Storage Back made of 9mm thick Marine ply (IS 710 : 2010) etc. Sides, Shutters, Bottom, adjustable shelf, finished 2mm thick machine pressed PVC Edge banding of required size etc. Hardware set to include 110 degree opening self- closing box hinges, Counter Sunk screw, S.S.Brush Finished, Handles L' Clips Selves support etc. complete. Multipurpose lock, Levelling Bolt with inserts etc. complete. Aluminium furniture feet – Round tube, diameter 40 mm with 100 mm height with suitable finish to match handles" Shape SS Brush finished handles as indicated in the drawing, suitable locking provision etc. complete										
ITEM No.239	SOR-23/R3-CS-FUR-15-a/256	900 x 450 x 1200 - 2 SHELVES SOR-23/R3-CS-FUR-15-a	0.00	0.00	0.00	0.00	0.00	16065.00	No.	-		
	SOR-23/R3-CS-FUR-11-a/255	Providing and supplying corner table of required size with top made of 8mm thick bevelled glass and under structure made of 18mm thick Marine ply (IS 710 : 2010) with all exposed edge are finished with 2mm thick machine pressed PVC edge banding in matching colour. (Rehau Make/or Equivalent) for better impact resistance etc. complete. Nylon button stopper to hold glass top in position, Nylon bushers etc. complete.										
ITEM No.240		900 x 450 x 1200 - 2 SHELVES SOR-23/R3-CS-FUR-11-a/255	0.00	0.00	0.00	0.00	0.00	4806.00	No.	-		
	Repair Work for existing Structure											
STRUCTURAL REPAIR										23,86,31,918.24		
15												
	SSR 22-23 Page No. 125 Item No : 16.02	Repairing of honey combed or spilling area by chipping out the damaged spalled or honey combed portion of concrete upto rusted rebars, cleaning of all rust, scale and loose materials, scaffolding, compressed air machinery etc. complete.(item includes use of air compressor, chipping machine and scaffolding for height 8 to 10 meter)	5197.00	305.00	533.00	864.00	6899.00	833.70	Sqm	57,51,696.30		
	MCGM USOR Bldg. 31.01.23 Page No. 26 Item No. : R3-CS-CW-55	Removing corrosion of steel reinforcement by mechanical means like wire brushing, chipping to remove loose rust and then applying rust removal solution by using brush application, leaving the surface for at least 15 to 30 minutes, then removing loose materials by scrubbing or with brush. After detachment of loose scales reddish rusted surface is still left exposed, this has to be retreated or as per approved manufacturers specifications. (Note:- Consider surface area of concrete for payment)	5197.00	305.00	533.00	864.00	6899.00	46.00	Sqm	3,17,354.00		
ITEM No.241												
	SSR 22-23 Page No. 149 Item No : 19.31	Anticorrosive treatment to expose reinforcement in two coats with time interval of minimum 4 hours between each coat. The application shall be done by brush	5197.00	305.00	533.00	864.00	6899.00	595.35	Sqmt	41,07,319.65		
ITEM No.242												
	SSR 22-23 Page No. 188 Item No : 26.33	Providing and fixing in position TMT-FE-500 bar reinforcement of various diameters for R.C.C. pile caps, footings, foundations, slabs, beams columns, canopies, staircase, newels, chajjas, lintels pardis, copings, fins, arches etc. as per detailed designs, drawings and schedules. including cutting, bending, hooking the bars, binding with wires or tack welding and supporting as required complete.	55.00	12.00	15.00	16.00	98.00	94188.15	MT	92,30,438.70		
ITEM No.243												
	MCGM USOR Bldg. 31.01.23 Page No. 26 Item No. : R3-CS-CW-56	Repairing to the existing RCC structural members (vertical or horizontal) using ready mix Polymer Modified Mortar (Fibre reinforced structural grade repair mortar) of approved brand where the thickness of repair is upto 15 mm. It can be used for carrying out extensive repairs to beams, columns, slab, and other structural elements, repairing of structural members subjected to repetitive loading for strengthening. Procedure for carrying out repair Polymer Modified Mortar -	1366.00	53.00	83.00	90.00	1592.00	3063.00	Sqm	48,76,296.00		
ITEM No.244												

		Name of Client -MAHARASHTRA FLIM ,STAGE AND CULTURAL DEVELOPMENT CORPORATION LIMITED									
		Proposed Repair and upgradation of studio 1,2,5,7,16 & Hospital at Goregaon Filmcity.									
Sr.No.		ITEM	Studio 1,2& Hospital	Studio 5	Studio 7	Studio 16	Total Qty	Rate	Per	Amount (INR)	
ITEM No.245		Surface preparation- (separate payment shall be made) All loose traces of concrete or mortar, dust, grease oil, etc. must be removed. Damaged or contaminated concrete shall be removed to obtain a keyed aggregate exposed surface. Non-impact/ vibrating cleaning methods, e.g. grit or high pressure water blasting are recommended. Clean all exposed reinforcement to a minimum grade of Sa 2 according to ISO 8501-1 / ISO 2944-4. Ensure all visible portions of the reinforcing bar is clean. Where reinforcing bars are corroded, cut back the concrete around the reinforcing bars, Grit blast to remove corrosion products from around reinforcing bars and coat with approved epoxy coating for corrosion protection or any other protective coating as recommended by the Structural Engineer to protect from corrosion. Replace the affected part of rebar if the diameter after grit blasting is found reduced by more than 20% of the original diameter on the advice of the structural engineer responsible for the works. Bond Coat- (separate payment shall be made only for bond coat used for old surface to new surface) Providing & applying One coat of structural grade epoxy bond coat by brush conforming to ASTM-C-882-87 to the prepared concrete surface to be repaired / strengthened and repairing with PMM shall be done when the surface is tacky.								-	
		Mixing - Only full bags are mixed. Damaged or opened bags should not be used. Mix the ready-mix Polymer Modified Mortar in a forced action pan mixer, or with a helical paddle attached to a low speed (300-600rpm) mixer for 3 minutes until a lump free, thixotropic consistency is achieved. Only use clean water. Mixing water needed: 3.75 to 4.25 litres per 25kg bag or as recommended by the Manufacturer of Polymer Modified Mortar. Allow the mortar to rest for 2 - 3 minutes and then remix briefly before pouring into formwork. If temperature more than 40°C then use chilled water for mixing.								-	
		Mortar application- The minimum temperatures must be maintained during application and for at least 24 hours thereafter for optimum curing of the product. The prepared substrate should be presoaked, preferably for 24 hours, but at least 2 hours before applying Polymer Modified Mortar. The surface must be saturated surface dry, but without standing water. Polymer Modified Mortar can be spray- or hand-applied. Apply mixed product directly to the prepared damp substrate, or wet on wet onto the primed surface. Spraying the material with the necessary pressure will ensure good adhesion of the material. A thin scrape coat or contact layer before building up to the required thickness, wet on wet, will improve adhesion especially in case of hand application. Apply to the desired layer thickness upto 15 mm and level using a screeding bar, trowel or wooden board. Smoothing with a trowel or finishing by float or sponge can be done as soon as the mortar has begun to stiffen.								-	
		Protective coatings Subsequent coatings of any anticarbonation barriers or silane impregnations should be applied if recommended by the Structural Engineer. Plaster- (No separate payment shall be made) The repaired surface shall be matched to the surrounding surface by providing required thickness of plaster internal or external plaster. Curing Minimum 7 days curing shall be done to the newly repaired area using any suitable method.Required Compressive strength (ASTM C109 7cm cube) Ready Mix Polymer Modified Mortar used on site shall be sent for testing of compressive strength and minimum strength required to be achieved is as follows –1 Day-15 MPa, 3 Day-25 MPa, 7 Day-35 MPa, 28 Day-45 MPa.								-	
ITEM No.246	MCGM USOR Bldg. 31.01.23 Page No. 28 Item No. : R3-CS-CW-57	Repairing to the existing RCC structural members (vertical or horizontal) using ready mix Polymer Modified Mortar (Fibre reinforced structural grade repair mortar) of approved brand where the thickness of repair is upto 30 mm in two layers. It can be used for carrying out extensive repairs to beams, columns, slab, and other structural elements, repairing of structural members subjected to repetitive loading for strengthening. Procedure for carrying out repair Polymer Modified Mortar -	2464.00	91.00	215.00	155.00	2925.00	5866.00	Sqm	1,71,58,050.00	
		Surface preparation- (separate payment shall be made) All loose traces of concrete or mortar, dust, grease oil, etc. must be removed. Damaged or contaminated concrete shall be removed to obtain a keyed aggregate exposed surface. Non-impact/ vibrating cleaning methods, e.g. grit or high pressure water blasting are recommended. Clean all exposed reinforcement to a minimum grade of Sa 2 according to ISO 8501-1 / ISO 2944-4. Ensure all visible portions of the reinforcing bar is clean. Where reinforcing bars are corroded, cut back the concrete around the reinforcing bars, Grit blast to remove corrosion products from around reinforcing bars and coat with approved epoxy coating for corrosion protection or any other protective coating as recommended by the Structural Engineer to protect from corrosion. Replace the affected part of rebar if the diameter after grit blasting is found reduced by more than 20% of the original diameter on the advice of the structural engineer responsible for the works. Bond Coat- (separate payment shall be made only for bond coat used for old surface to new surface) Providing & applying One coat of structural grade epoxy bond coat by brush conforming to ASTM-C-882-87 to the prepared concrete surface to be repaired / strengthened and repairing with PMM shall be done when the surface is tacky.								-	

		Name of Client -MAHARASHTRA FLIM ,STAGE AND CULTURAL DEVELOPMENT CORPORATION LIMITED									
		Proposed Repair and upgradation of studio 1,2,5,7,16 & Hospital at Goregaon Filmcity.									
Sr.No.		ITEM	Studio 1,2& Hospital	Studio 5	Studio 7	Studio 16	Total Qty	Rate	Per	Amount (INR)	
		Mixing - Only full bags are mixed. Damaged or opened bags should not be used. Mix the ready-mix Polymer Modified Mortar in a forced action pan mixer, or with a helical paddle attached to a low speed (300-600rpm) mixer for 3 minutes until a lump free, thixotropic consistency is achieved. Only use clean water. Mixing water needed: 3.75 to 4.25 litres per 25kg bag or as recommended by the Manufacturer of Polymer Modified Mortar. Allow the mortar to rest for 2 - 3 minutes and then remix briefly before pouring into formwork. If temperature more than 40°C then use chilled water for mixing.								-	
		Mortar application- The minimum temperatures must be maintained during application and for at least 24 hours thereafter for optimum curing of the product. The prepared substrate should be presoaked, preferably for 24 hours, but at least 2 hours before applying Polymer Modified Mortar. The surface must be saturated surface dry, but without standing water. Polymer Modified Mortar can be spray- or hand-applied. Apply mixed product directly to the prepared damp substrate, or wet on wet onto the primed surface. Spraying the material with the necessary pressure will ensure good adhesion of the material. A thin scrape coat or contact layer before building up to the required thickness, wet on wet, will improve adhesion especially in case of hand application. Apply to the desired layer thickness upto 15 mm and level using a screeding bar, trowel or wooden board. Smoothing with a trowel or finishing by float or sponge can be done as soon as the mortar has begun to stiffen.								-	
		Protective coatings Subsequent coatings of any anticarbonation barriers or silane impregnations should be applied if recommended by the Structural Engineer. Plaster- (No separate payment shall be made) The repaired surface shall be matched to the surrounding surface by providing required thickness of plaster internal or external plaster. Curing Minimum 7 days curing shall be done to the newly repaired area using any suitable method. Required Compressive strength (ASTM C109 7cm cube) Ready Mix Polymer Modified Mortar used on site shall be sent for testing of compressive strength and minimum strength required to be achieved is as follows –1 Day-15 MPa, 3 Day-25 MPa, 7 Day-35 MPa, 28 Day-45 MPa.								-	
ITEM No.247	MCGM Bridge SOR 2023 Page No. 82 Item No. : R3-BW-5-5-c	Providing and applying epoxy mortar for repairs to cracked portions of RCC columns, piers, beams, girders, diaphragms, slabs, parapets etc. including chipping the loose cracked concrete, cleaning the surface and removing the rust thoroughly and completely by means of wire brushes, sand blasting and washing with water etc. rebuilding the section by first applying one coat of epoxy primer coat of araldite / GY 257 and hardener HY840 in 100:50 proportion by weight, applying epoxy mortar prepared by mixing araldite, hardener and quartzite sand in 100:50:900 proportion by weight in required shape and architectural finishes, if any, finishing the surface smooth including applying a seal coat of araldite and hardener in 100:50 proportion by weight with stiff nylon bristle brush etc. complete as specified as directed.	1500.00	500.00	500.00	500.00	3000.00	459.00	Kg	13,77,000.00	
ITEM No.248	MCGM USOR Bldg. 31.01.23 Page No. 22 Item No. : R3-CS-CW-45	Repairing to the existing RCC structural members (vertical or horizontal) using ready mix Micro Concrete of approved brand where the thickness of repair is more than 30 mm and upto 115 mm. It can be used for carrying out extensive repairs to beams, columns and other structural elements, repairing of structural members subjected to repetitive loading & for Jacketing of beams, columns and other structural elements for strengthening.Procedure for carrying out repairing/jacketing using ready mix micro concrete-	196322.00	86073.00	30812.00	70251.00	383458.00	41.00	Kg	1,57,21,778.00	
		Surface preparation- (separate payment shall be made) All loose traces of concrete or mortar, dust, grease oil, etc. must be removed. Damaged or contaminated concrete shall be removed to obtain a keyed aggregate exposed surface. Non-impact/ vibrating cleaning methods, e.g. grit or high pressure water blasting are recommended. Cut the edges of the repair vertically to a minimum depth of 20 mm. Clean all exposed reinforcement to a minimum grade of Sa 2 according to ISO 8501-1 / ISO 2944-4. Ensure back of reinforcing bar is also clean. Where reinforcing bars are corroded, cut back the concrete to at least 20mm behind the reinforcing bars and coat old and new with approved epoxy coating for corrosion protection Water Powder ration Grit blast around the reinforcing bars to remove corrosion products or any other method recommended by Engineer In charge or Structural Consultant. Replace the affected part of reinforcing bar if the diameter after grit blasting is found reduced by more than 20% of the original diameter on the advice of the structural engineer responsible for the works. Bond Coat- (separate payment shall be made) Providing & applying One coat of structural grade epoxy bond coat by brush conforming to ASTM-C-882-87 to the prepared concrete surface to be repaired / strengthened and micro concreting pouring shall be done when the surface is tacky.								-	

			Name of Client -MAHARASHTRA FLIM ,STAGE AND CULTURAL DEVELOPMENT CORPORATION LIMITED								
		Proposed Repair and upgradation of studio 1,2,5,7,16 & Hospital at Goregaon Filmcity.									
Sr.No.		ITEM	Studio 1,2& Hospital	Studio 5	Studio 7	Studio 16	Total Qty	Rate	Per	Amount (INR)	
		Formwork – (No separate payment shall be made)The forms must be of good quality, treated with a chemical release agent for smooth release, provided with water drain holes, strong and well braced to withstand the fluid pressure of the mortar until it hardens.Mixing - Only full bags are mixed. Damaged or opened bags should not be used. Mix the ready mix Micro Concrete in a forced action pan mixer, or with a helical paddle attached to a low speed (300-600rpm) mixer for 3 minutes until a lump free, flowable consistency is achieved. Only use clean water. Mixing water needed: 3.25 to 3.75 litres per 25kg bag or as recommended by the Manufacturer of Micro Concrete. Allow the mortar to rest for 2 - 3 minutes and then remix briefly before pouring into formwork. If temperature more than 40°C then use chilled water for mixing.								-	
		Mortar application-The minimum temperatures must be maintained during application and for at least 24 hours thereafter for optimum curing of the product. The prepared substrate should be presoaked, preferably for 24 hours, but at least 2 hours before applying Ready Mix Micro Concrete ensure all water is removed from formwork prior to installation and formwork is resealed. Ready Mix Micro Concrete should be pumped or poured into the prepared formwork until the void is filled. Pumping is recommended for larger pours. Do not vibrate Ready Mix Micro Concrete as it could lead to segregation. The formwork should be removed after 1-3 days and a curing compound applied. If subsequent coats are to be applied the use of clear polythene is recommended for the first three days after removal of formwork. For repairs beyond 80m m to 100mm in thickness, extend Ready Mix Micro Concrete with up to 25kg of 5-								-	
		Curing -Minimum 7 days curing shall be done to the newly repaired/jacketed area using any suitable method.Required Compressive strength (ASTM C109 7cm cube) Ready Mix Micro Concrete used on site shall be sent for testing of compressive strength and minimum strength required to be achieved is as follows –1 Day-15 MPa, 3 Day-25 MPa, 7 Day-35 MPa, 28 Day-40 MPa. Note- Payment is to be made by weight premixed of micro concrete product consumed as per site register records.								-	
ITEM No.249	SSR 22-23 Page No. 125 Item No : 16.07	Providing and laying insitu / ready mix M35 grade RCC jacketing work around the existing piers of bridges etc. complete. (with fully automatic micro processor based PLC with SCADA enabled concrete batch mix plant / pan mixer with fine aggregates of required specifications (VSI sand finely washed etc), height of 8 to 10 meter).	108.00	31.00	34.00	87.00	260.00	8986.79	Cum	23,36,564.38	
ITEM No.250	SSR 22-23 Page No. 150 Item No : 10.22	Providing & applying structural grade epoxy approved bond coat prior to application of any type of mortar confirming to IS codes or equivalent to ensure bond between old concrete & new concrete by brush application etc complete.	5197.00	305.00	533.00	864.00	6899.00	774.90	Sqm	53,46,035.10	
ITEM No.251	MCGM Bridge SOR 2023 Page No. 93	Sealing of cracks/porous concrete by injection process through nipples/Grouting complete as per Technical specification Cement Grout	1800.00	275.00	300.00	275.00	2650.00	261.00	Kg	6,91,650.00	
ITEM No.252	SSR 22-23 Page No. 149 Item No : 19.24	Providing Grouting of nozzles with Low Viscosity Epoxy grout including material, labour complete in all respect.	30.00	15.00	20.00	15.00	80.00	1741.95	Kg	1,39,356.00	
ITEM No.253	MCGM Bridge SOR 2023 Page No. 93 Item No. : R3-BW-7-4	Providing and inserting nipples with approved fixing compound after drilling holes for grouting as per Technical specifications including subsequent cutting/removal and sealing of the hole as necessary of nipples after completion of grouting with Cement/Epoxy	510.00	99.00	115.00	99.00	823.00	215.00	Each	1,76,945.00	
16.00	JACKETING									-	
ITEM No.254	SSR 22-23 Page No. 296	Dismantling brick masonry in lime or cement mortar and stacking the materials as directed with all leads, lifts etc.	77.00	14.00	12.00	21.00	124.00	351.75	Cum	43,617.00	
ITEM No.255	SSR 22-23 Page No. 197 Item No :	Providing second class Burnt Brick masonry with conventional/ I.S. type bricks in cement mortar 1:6 in superstructure including striking joints, raking out joints, watering and scaffolding etc. Complete	53.00	0.00	0.00	11.00	64.00	9060.75	Cum	5,79,888.00	
ITEM No.256	SSR 22-23 Page No. 197 Item No :	Providing second class Burnt Brick masonry with conventional/ I.S. type bricks in cement mortar 1:6 in superstructure including striking joints, raking out joints, watering and scaffolding etc. Complete	0.00	7.00	6.00	0.00	13.00	8866.43	Cum	1,15,263.64	
ITEM No.257	SSR 22-23 Page No. 296 Item No : 46.13	Removing rich mix cement concrete including stacking the spoils as directed with all leads, lifts etc, complete.	31.00	1.00	1.00	1.00	34.00	976.50	Cum	33,201.00	
ITEM No.258	SSR 22-23 Page No. 153 Item No : 21.01	Excavation for foundation in earth, soil of all types, sand, gravel and soft murum, including removing the excavated material upto a distance of 50m. beyond the building area and stacking and spreading as directed, dewatering, preparing the bed for the foundation and necessary backfilling, ramming, watering including shoring and strutting etc. complete. (Lift upto 0.00 to 1.50 m.) By Manual Means	7.00	0.00	1.00	0.00	8.00	250.95	Cum	2,007.60	

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			Proposed Repair and upgardation of studio 1,2,5,7,16 & Hospital at Goregaon Filmcity.									
Sr.No.		ITEM	Studio 1,2& Hospital	Studio 5	Studio 7	Studio 16	Total Qty	Rate	Per	Amount (INR)		
		Excavation for foundation in earth, soil of all types, sand, gravel and soft murum, including removing the excavated material upto a distance of 50m. beyond the building area and stacking and spreading as directed, dewatering, preparing the bed for the foundation and necessary backfilling, ramming, watering including shoring and strutting etc. complete. (Lift upto 0.00 to 1.50 m.) By Manual Means	0.00	3.00	0.00	3.00	6.00	329.70	Cum	1,978.20		
ITEM No.259	SSR 22-23 Page No. 157 Item No. : R3-CS-RF-3	Providing dry/ trap/ granite/ quartzite/ gneiss rubble stone soling 15cm to 20cm thick including hand packing and compacting etc. complete	4.00	2.00	1.00	0.00	7.00	1817.49	Cum	12,722.43		
		Providing dry/ trap/ granite/ quartzite/ gneiss rubble stone soling 15cm to 20cm thick including hand packing and compacting etc. complete	0.00	0.00	0.00	2.00	2.00	2118.15	Cum	4,236.31		
ITEM No.260	SSR 22-23 Page No. 175 Item No : 24.04	Providing and laying Cast insitu/ Ready Mix cement concrete in M15 of trap/ granite/ quartzite/ gneiss metal for foundation and bedding/ steps including steel centering, formwork, laying/ pumping, compacting, roughening them if special finish is to be provided, finishing uneven and honey combed surface and curing etc. complete. The Cement Mortar 1:3 plaster is considered for rendering uneven and honey combed surface, only. Newly laid concrete shall be covered by gunny bag, plastic, tarpaulin etc. (Wooden centering will not be allowed.), with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)	4.00	1.00	1.00	0.00	6.00	7417.28	Cum	44,503.68		
		Providing and laying Cast insitu/ Ready Mix cement concrete in M15 of trap/ granite/ quartzite/ gneiss metal for foundation and bedding/ steps including steel centering, formwork, laying/ pumping, compacting, roughening them if special finish is to be provided, finishing uneven and honey combed surface and curing etc. complete. The Cement Mortar 1:3 plaster is considered for rendering uneven and honey combed surface, only. Newly laid concrete shall be covered by gunny bag, plastic, tarpaulin etc. (Wooden centering will not be allowed.), with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)	0.00	0.00	0.00	1.00	1.00	7043.34	Cum	7,043.34		
ITEM No.261	MCGM USOR Bldg. 31.01.23 Page No. 245 Item No. : R3-CS-RF-3	Shear Connectors: Make 10/12 mm dia holes using heavy duty electrically operated hammer drills in the concrete of RCC members to a depth of about 75 mm at 500 mm c/c or at suitable grid in zig-zag fashion, clean the holes using air jet and fix pre- fabricated 100 x 50 mm L-shape 8 mm dia rebar using Anti Corrosive protective coating so that 75 mm out of 100 mm is inserted inside the concrete and 25 mm remain outside along with 50 mm bend. The shear connectors are used to tie the additional reinforcement bars	13902.00	2709.00	4512.00	1150.00	22273.00	561.00	Nos.	1,24,95,153.00		
SLAB RECASTING WORK										-		
ITEM No.262	SSR 22-23 Page No. 182 Item No : 25.72	Providing and laying Cast in situ/ Ready Mix cement concrete M-25 of trap/ granite/ quartzite/ gneiss metal for R.C.C. slabs and landings as per detailed designs and drawings including steel centering, formwork, cover blocks, laying/ pumping, compaction finishing the formed surfaces with cement mortar 1:3 of sufficient minimum thickness to give a smooth and even surface or roughening if special finishes to be provided and curing etc. complete, (Excluding reinforcement and structural steel). with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)	30.00	0.00	0.00	0.00	30.00	15533.21	Cum	4,65,996.30		
WATERPROOFING WORK										-		
ITEM No.263	SSR 22-23 Page No. 296 Item No : 46.14	Removing brick bat coba including stacking the spoils as directed with all leads, lifts etc, complete.	269.00	27.00	12.00	14.00	322.00	664.65	Cum	2,14,017.30		
ITEM No.264	SSR 22-23 Page No. 301 Item No : 46.59	Lowering down the debris obtained from breaking and removing the cement plaster/ burnt brick masonry of the first floor by any means without causing dust nuisance and damage to structure, stacking the same as and where directed including cleaning the site complete	269.00	27.00	12.00	14.00	322.00	789.60	Cumt	2,54,251.20		
ITEM No.265	MCGM USOR Bldg. 31.01.23 Page No. 61 Item No. : R3- CS-WP-44	Water proofing treatment to the chajja after removing old plaster and roughening the surface and finishing the top surface with 20mm thk. 1:2 c.s. plaster with approved water proofing compounds and neat cement finish, the rate also includes for 1:3 c.s. facia of chajja to match the new surface(actual area treated will be paid).	15.00	0.00	0.00	0.00	15.00	394.00	Sqm	5,910.00		

		Name of Client -MAHARASHTRA FLIM ,STAGE AND CULTURAL DEVELOPMENT CORPORATION LIMITED									
		Proposed Repair and upgradation of studio 1,2,5,7,16 & Hospital at Goregaon Filmcity.									
Sr.No.		ITEM	Studio 1,2& Hospital	Studio 5	Studio 7	Studio 16	Total Qty	Rate	Per	Amount (INR)	
	NON SSR 1	Providing and applying of MARISEAL 250 or equivalent approved make of Polyurethane coating in two coats for terrace waterproofing having more than 400 % elongation at break. The final curing time shall be of 7 days. The Water Vapor Permeability shall be more than 25 gr/m2 /day. The service temperature shall be of 30 to 90 Deg Cel and the adhesion to concrete properties shall be more than 1.5 N/mm2. The coating shall be highly permanent elastic, cold applied and cold curing, one component polyurethane membrane. The coating shall have mechanical, chemical, thermal, UV and natural element resistance properties. The MARISEAL 710 Polyurethane Primer or equivalent approved make solvent based primer shall be used for quick drying. The MARISEAL FABRIC or equivalent approved make shall be used as a reinforcing fabric for liquid applied waterproofing membranes.	1535.00	176.00	77.00	93.00	1881.00	1716.00	Sqm	32,27,796.00	
ITEM No.266											
	SSR 22-23 Page No. 206 Item No :	Removing the tar or coba and disposing of the material as directed etc. complete.	1708.00	0.00	0.00	0.00	1708.00	27.30	Sqm	46,628.40	
ITEM No.267											
	MCGM USOR Bldg 31.01.2023 Page No. 55 Item No. : R3- CS-WP-17	Providing and laying APP (Atactic Polypropylene Polymer) modified prefabricated five layer 3 mm thick water proofing membrane, black finished reinforced with non-woven polyester matt consisting of a coat of bitumen primer for bitumen membrane @ 0.40 litre/sqm by the same membrane manufacture of density at 25°C, 0.87-0.89 kg/ litre and viscosity 70-160 cps. Over the primer coat the layer of membrane shall be laid using Butane Torch and sealing all joints etc, and preparing the surface complete. The vital physical and chemical parameters of the membrane shall be as under : Joint strength in longitudinal and transverse direction at 23°C as 650/ 450N/5cm. Tear strength in longitudinal and transverse direction as 300/250N. Softening point of membrane not less than 150°C. Cold flexibility shall be upto -2°C when tested in accordance with ASTM, D - 5147. The laying of membrane shall be got done through the authorised applicator of the manufacturer of membrane 22.20.1 3 mm thick	1708.00	0.00	0.00	0.00	1708.00	459.00	1708.00	7,83,972.00	
ITEM No.268											
PLASTERING											
	SSR 22-23 Item No : 32.33	Removing the existing cement plaster of any thickness without causing dust nuisance and stacking the debris upto a distance of 50 metres or spreading in the compound and cleaning the site etc. complete.	7805.00	1787.00	3280.00	7037.00	19909.00	54.60	Sqm	10,87,031.40	
ITEM No.269											
	SSR 22-23 Item No : 32.11	Providing sand faced plaster externally in cement mortar using approved screened sand, in all positions including base coat of 15mm thick in cement mortar 1:4 using waterproofing compound at 1 Kilogram per cement bag curing the same for not less than 2 days and keeping the surface of the base coat rough to receive the sand faced treatment 6 to 8 mm thick in cement mortar 1:4 finishing the surface by taking out grains and curing for fourteen days scaffolding etc.complete.	4019.00	1017.00	1383.00	3910.00	10329.00	701.02	Sqm	72,40,835.58	
ITEM No.270											
	SSR 22-23 Item No : 32.04	Providing internal cement plaster 12mm thick in single coat in cement mortar 1:4 without neeru finish to concrete or brick surfaces, in all positions including scaffolding and curing etc. complete.	3344.00	770.00	1779.00	3127.00	9020.00	305.57	Sqm	27,56,241.40	
ITEM No.271											
	SSR 22-23 Item No : 32.01	Providing internal cement plaster 6mm thick in a single coat in cement mortar 1:4 without neeru finish to concrete surface in all positions including scaffolding and curing etc. complete.	950.00	0.00	118.00	0.00	1068.00	220.07	Sqm	2,35,034.76	
ITEM No.272											
TILING											
	MCGM USOR Bldg. 31.01.23 Item No. : R3- CS-DD-64	Removing mosaic, cement marble, granites non-slippery, tandur, kotah, shahabad stone or Indian Pattern stone, glazed tiles in flooring and dado including bedding brick bat coba etc., and delivering materials in Ward Office and carting away unserviceable materials.	440.00	193.00	266.00	0.00	899.00	315.00	Sqm	2,83,185.00	
ITEM No.273											
	SSR Item No. : 33.25	Providing and laying ceramic tiles of having size 30cm.x30cm. and confirming to corresponding I.S. for dado and skirting in required position with ready made adhesive mortar of approved quality on plaster of 1:2 cement mortar including joint filling with white/ colour cement slurry cleaning curing etc. complete.	440.00	0.00	266.00	0.00	706.00	1333.24	Sqm	9,41,267.44	
ITEM No.274											
		Providing and laying ceramic tiles of having size 30cm.x30cm. and confirming to corresponding I.S. for dado and skirting in required position with ready made adhesive mortar of approved quality on plaster of 1:2 cement mortar including joint filling with white/ colour cement slurry cleaning curing etc. complete.		193.00		292.00	485.00	1317.75	Sqm	6,39,108.75	
ITEM No.275											
PAINTING											
	SSR 22-23 Page No. 224 Item No : 35.12	Providing and applying two coats of flat oil paint of approved colour and shade to internal/ external plastered surfaces including scaffolding if necessary, cleaning and preparing the surface (excluding primer coat) etc. complete.	3900.00	697.00	190.00	0.00	4787.00	106.05	Sqm	5,07,661.35	
ITEM No.276											
	SSR 22-23 Page No. 224 Item No : 35.20	Providing and applying priming coat over new/old steel and other metal surfaces including preparing the surface by thoroughly cleaning oil, grease, dirt and other foreign matter and scoured with wire brushes, fine steel wool, scrappers and sand paper, scaffolding etc.complete.	5802.00	2717.00	3163.00	4304.00	15986.00	38.85	Sqm	6,21,056.10	
ITEM No.277											

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		Proposed Repair and upgradation of studio 1,2,5,7,16 & Hospital at Goregaon Filmcity.								
Sr.No.		ITEM	Studio 1,2& Hospital	Studio 5	Studio 7	Studio 16	Total Qty	Rate	Per	Amount (INR)
ITEM No.278	SSR 22-23 Page No. 223 Item No : 35.09	Providing and applying two coats of flat oil paint of approved colour to the old structural steel work and iron work previously painted in building including scaffolding, if necessary, cleaning and preparing the surface (excluding primer coat) etc. complete.	5802.00	2717.00	3163.00	4304.00	15986.00	89.25	Sqm	14,26,750.50
ITEM No.279	SSR 22-23 Page No. 223 Item No : 36.03	Providing and applying white-wash in two coats on old / new plastered or masonry surfaces and asbestos cement sheets including scaffolding and preparing the surface by brushing and brooming down etc. complete.	7411.00	5619.00	2438.00	5939.00	21407.00	12.60	Sqm	2,69,728.20
ITEM No.280	SSR 22-23 Page No. 346 Item No : 50.79	Providing and applying two coats Apex Ultima Puranature Anti-Pollution Or equivalent approved brand, paint should decomposes organic substances and inorganic gases (NOx, VOC's, CO, SOx, formaldehydes, etc.) in presence of natural or artificial light. It contains Graphene and nano particles of titanium oxide. and Absorbs CO2 (4.8 Kilogram/15l). plaster crack should be filled by Acrylic base Crack seal/ Textured Crack filler, Paint has to applied on one coat of Apex Ultima Puranature Anti-Pollution Primer or Equivalent. Warranty Should be given by the Manufaturer The work should be done by the Manufacturer Recommended applicator and he should be able to furnish stage wise on site technical reports from the concerned company technologist.	1265.00	0.00	1383.00	1124.00	3772.00	390.60	Sqm	14,73,343.20
ITEM No.281	SSR 22-23 Page No. 225 Item No : 35.21	Providing and applying priming coat on concrete/ masonry/ Asbestos Cement plastered surfaces including scaffolding if necessary, preparing the surface by thoroughly cleaning oil, grease, dirt and other foreign matter and sand papering as required etc.complete.	3900.00	0.00	190.00	0.00	4090.00	37.80	Sqm	1,54,602.00
ITEM No.282	SSR 22-23 Page No. 225 Item No : 35.25	Providing and applying priming coat on concrete/ masonry/ Asbestos Cement plastered surfaces including scaffolding if necessary, preparing the surface by thoroughly cleaning oil, grease, dirt and other foreign matter and sand papering as required etc.complete.	0.00	697.00	0.00	0.00	697.00	274.05	Sqm	1,91,012.85
ITEM No.283	SSR 22-23 Page No. 223 Item No : 35.03	Providing and applying two coats of lead/zinc base oil paint/ bituminous paint of approved colour and shade to old wood work and fiber boards previously painted including if necessary scaffolding, preparing the surface excluding priming coat etc. complete.	0.00	0.00	7.00	0.00	7.00	75.60	Sqm	529.20
STAIRCASE										
ITEM No.284	MCGM ROADS USOR 2022 Item No. : R3- RW-7-07	Removing existing barbed wire fencing/pipe railing of any height, including posts & carting away the same to Ward Chowky & stacking the same neatly as directed.	30.00	0.00	0.00	0.00	30.00	25.00	Rmt	750.00
ITEM No.285	SSR 22-23 Page No. 297 Item No : 46.29	Dismantling the R.C.C. Work 1:2:4 and sorting out the materials such as steel etc. as directed and stacking them within the specified lead as directed etc. complete.	26.00	0.00	0.00	0.00	26.00	1523.55	Cumt	39,612.30
ITEM No.286	SSR 22-23 Page No. 175 Item No : 24.04	Providing and laying Cast insitu/ Ready Mix cement concrete in M15 of trap/ granite/ quartzite/ gneiss metal for foundation and bedding/ steps including steel centering, formwork, laying/ pumping, compacting, roughening them if special finish is to be provided, finishing uneven and honey combed surface and curing etc. complete. The Cement Mortar 1:3 plaster is considered for rendering uneven and honey combed surface, only. Newly laid concrete shall be covered by gunny bag, plastic, tarpaulin etc. (Wooden centering will not be allowed.), with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)	5.00	0.00	0.00	0.00	5.00	7417.28	Cumt	37,086.40
ITEM No.287	SSR 22-23 Page No. 186 Item No : 26.26	Providing and laying Cast in situ/ Ready Mix cement concrete in M-25 of trap/ quartzite/ granite/ gneiss metal for R.C.C. Waist slab, and steps of staircases as per detailed design and drawings or as directed including steel centering, plywood/ steel formwork, steel props, laying/ pumping, compaction, finishing uneven and honey combed surface with C.M. 1:3 of sufficient minimum thickness to give a smooth and even surface or roughening the surface if special finishes to be provided and curing etc. complete. (Excluding reinforcement, including cover block). (Newly laid concrete shall be covered by gunny bag, plastic, tarpaulin etc.) with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)	26.00	0.00	0.00	0.00	26.00	13567.61	Cumt	3,52,757.86
ITEM No.288	SSR 22-23 Page No. 265 Item No : 40.08	Providing and Fixing mat finish stainless steel (of 302 grade) railing with top pipe of 50mm dia. and vertical pipe of 38mm dia at 0.60m c/c or as required and horizontal pipes of 25mm dia in three rows, all pipes of 2mm thick including buffing, fabricating fixtures and fastening including pipe base of appropriate diameter and ball base of 75mm dia above newel post of 75mm diameter etc. complete (Prior approval of sample and brand by Ex.Engineer is necessary before use)	30.00	0.00	0.00	0.00	30.00	3722.25	Rmt	1,11,667.50

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		Proposed Repair and upgradation of studio 1,2,5,7,16 & Hospital at Goregaon Filmcity.									
Sr.No.		ITEM	Studio 1,2& Hospital	Studio 5	Studio 7	Studio 16	Total Qty	Rate	Per	Amount (INR)	
ITEM No.289	SSR 22-23 Page No. 215 Item No : 33.18	Providing and laying machine cut machine polished machine cut Kota stone slabs 20 to 25 mm thick for treads and risers of steps and staircases, with rounded nosing for the treads on a bed of 1:4 cement mortar including cement float, filling joints with neat cement slurry, curing, polishing and cleaning etc. complete.	25.00	0.00	0.00	0.00	25.00	1668.82	Sqmt	41,720.50	
ITEM No.290	SSR 22-23 Page No. 220 Item No : 33.75	Providing and laying Polished Kota stone flooring With Hand-Cut Polished Kota Stones 25mm to 30mm thick and required width in plain/diamond pattern on bed of 1:6 Cement mortar including cement float, filling joints with neat cement slurry, curing, cleaning and Mirror Polishing etc. complete Note-Water absorption for kota stone should not exceed 0.05%. (Item to be used with prior permission of Superintending Engineer)	43.00	0.00	0.00	0.00	43.00	1785.16	Sqmt	76,761.88	
ITEM No.291	SSR 22-23 Page No. 221 Item No : 33.81	Providing and fixing in required position skirting or dado of polished Kotah Stone slab 25mm to 30mm thick fixed on base on plaster of cement mortar 1:4 including cement float, filling joints with cement slurry, curing rubbing, polishing and cleaning complete.	4.00	0.00	0.00	0.00	4.00	1579.77	Sqmt	6,319.08	
ROOFING WORK										-	
ITEM No.292	MCGM USOR Bldg. 31.01.23 Item No. : R3-CS-RW-10	Removing Existing Mangalore tiles / AC / GI / Galvalume Sheets / polycarbonate plain and corrugated sheets from roof / cladding / partitions etc., excluding supporting structure but including scaffolding, handling, transporting, sorting and stacking at site lead up to 150m and or disposing etc complete as directed.	176.00	1117.00	1307.00	1538.00	4138.00	127.00	Sqm	5,25,526.00	
ITEM No.293	NON SSR 3	Providing & installing pre insulated roof panels of QUADCORE or equivalent approved make of trapezoidal micro ribbed of approved colour RAL 9002 or similar make. The thickness of roof panel shall be 60mm including 0.50 mm pre painted galvalume steel on both sides. The sheet grade shall be of 300 Mpa with silicone modified polyester (SMP) type of coating with 150 GSM. The roof panel shall be fire safe and shall have minimum density of 40 kg/cum. The panels shall be jointless and shall have length up to 11.8 mtr. The panel width shall be 1.1 mts approx. The thermal conductivity of roof panel is as minimum as 0.018W/mk. The core shall be made of self-blended hybrid insulation core with composition of foam based closed cell structure. The panel shall be made up of green material and shall be suitable for internal and external areas for application. Approved Make -Kingspan Jindal QUADCORE or equivalent approved	48.00	1229.00	1438.00	1692.00	4407.00	4200.00	Sqm	1,85,09,400.00	
ITEM No.294	NON SSR 4	Providing & installing flashings in 0.5mm pre painted galvalume steel (PPGL) Approved Make - Kingspan Jindal or equivalent	11.00	271.00	317.00	373.00	972.00	252.00	kg	2,44,944.00	
ITEM No.295	MCGM USOR Bldg. 31.01.23 Item No. : R3-CS-RW-08	Providing and fixing in position UV resistant, fire retardant, virtually unbreakable and temperature resistant (-40° C to +130° C) Polycarbonate corrugated sheet of 2mm thickness for roof of approved make to match the roof profile at any height with G.I. J hooks bolts of G.I. clamps nuts & bolts or with self drilling fastener and EPDM washer etc. complete as directed.	65.00	0.00	0.00	0.00	65.00	1825.00	Sqm	1,18,625.00	
FABRICATION WORK										-	
ITEM No.296	SSR 22-23 Page No. 173 Item No : 23.01	Providing and fabricating structural steel work in rolled sections like joists, channels, angles, tees etc. as per detailed design and drawings or as directed including cutting, fabricating, hoisting, erecting, fixing in position making riveted/ bolted/ welded connections without connecting plates, braces etc. and including one coat of anticorrosive paint and over it two coats of oil painting of approved quality and shade etc. complete.	7.00	9.00	10.00	12.00	38.00	106936.20	MT	40,63,575.60	
MISCELLANEOUS										-	
ITEM No.297	MCGM USOR Bldg. 31.01.23 Item No. : R3-CS-DD-14	Dismantling steel work in built up sections in angles, tees, flats and channels of rolling shutters, grills, gates, fencing, hoardings, including all gusset plates, bolts, nuts, cutting rivets, welding etc. including dismembering and stacking within 50metres lead.	8216.00	0.00	0.00	0.00	8216.00	4.00	Kg	32,864.00	
ITEM No.298	SSR 22-23 Item No. : 40.07	Providing and fixing 900 mm high S.S. 304 Grade Stainless steel railing with 40mm diameter and 1.5mm thick at top, 40mm diameter and 1.5mm thick vertical supports spaced at 1.5m center to center and 8mm thick toughened glass including fabricating, fixtures, erecting, necessary welding, grinding, finishing, buffing to stainless steel pipe etc. complete.	12.00	0.00	0.00	0.00	12.00	4939.20	Rmt	59,270.40	
ITEM No.299	SSR 22-23 Item No. : 46.28	Removing cast iron or wrought iron or A.C. pipe and stacking them as directed with all leads, lifts etc. complete.	200.00	96.00	11.00	60.00	367.00	23.10	Rmt	8,477.70	

		Name of Client -MAHARASHTRA FLIM ,STAGE AND CULTURAL DEVELOPMENT CORPORATION LIMITED									
		Proposed Repair and upgradation of studio 1,2,5,7,16 & Hospital at Goregaon Filmcity.									
Sr.No.		ITEM	Studio 1,2& Hospital	Studio 5	Studio 7	Studio 16	Total Qty	Rate	Per	Amount (INR)	
ITEM No.300		Providing and fixing P.V.C. Rain water pipes of 160mm outer diameter and having wall thickness of 2.2 to 2.7 mm confirming to I.S.13592-1992 including proper rain water receiving recess with P.V.C. plug, bend, necessary fittings, such as, offsets, shoes, including fixing the pipe on wall using approved wooden cleats projecting 25mm to 40mm from face of wall a fixing with clips of approved quality and One Number, filing the joint using rubber gasket with solvent cement and properly resting the shoe of pipes on C.C. or masonry blocks, including necessary scaffolding and maintenance for 3 yrs for any leakages or dislocations of pipes. All the P.V.C. fittings and additional 2 piece socket clips shall be got approved from engineer in charge etc. complete.	0.00	30.00	0.00	0.00	30.00	1555.05	Rmt	46,651.50	
ITEM No.301	SSR 22-23 Item No. : 42.87	Providing and fixing P.V.C. Rain water pipes of 110mm outer diameter and having wall thickness of 2.2 to 2.7 mm confirming to I.S.13592-1992 including proper rain water receiving recess with P.V.C. plug, bend, necessary fittings, such as, offsets, shoes, including fixing the pipe on wall using approved wooden cleats projecting 25mm to 40mm from face of wall a fixing with clips of approved quality and One Number, filing the joint using rubber gasket with solvent cement and properly resting the shoe of pipes on C.C. or masonry blocks, including necessary scaffolding and maintenance for 3 yrs for any leakages or dislocations of pipes. All the P.V.C. fittings and additional 2 piece socket clips shall be got approved from engineer in charge etc. complete.	200.00	0.00	11.00	60.00	271.00	597.45	Rmt	1,61,908.95	
ITEM No.302	SSR 22-23 Item No : 46.58	Removal of plants/ ficus grown by pulling out root system embedded in masnry, cutting stem and application of high/ gur/ lime formulation as specified by the Architect or other patented chemical biocide treatment such as biocide 'Glycel' (iso proplamine salt of glyphosate) or other chemical as specified by the Engineer in charge etc. complete.	83.00	40.00	22.00	30.00	175.00	239.40	Nos.	41,895.00	
ITEM No.303	SSR 22-23 Item No : 21.28	Providing antitermite treatment to the sides of flooring of the existing building as per I.S.6313 (Part-III) by punching holes 6mm dia. drilled at a distance of 30cm. centre to centre and injecting one percent of chlorodane emulsion concentrate at the rate of 50 ml per hole and sealing by filling putty etc. complete covering 2 years guarantee on bond paper.	1261.00	470.00	477.00	640.00	2848.00	27.30	Nos.	77,750.40	
ITEM No.304	SSR 22-23 Item No : 46.38	Providing and fixing Jute Kantan (Tarat) screen to the scaffold-ing for external guniting as directed including removing the same after the work is over etc. complete.	4346.00	2075.00	2002.00	3311.00	11734.00	71.40	Sqm	8,37,807.60	
ITEM No.305	SSR 22-23 Page No. 560 Item : Statement C	Disposal of building rubbish / malba / similar unserviceable, dismantled or waste materials by mechanical means including loading, transporting, unloading to approved municipal dumping ground or as approved by Engineer-in-charge, beyond 50 m initial lead, for all loads including all lifts involved. For 25 Km Lead	417.00	75.00	0.00	167.00	584.00	616.35	Cum	4,66,893.80	
ITEM No.306		Disposal of building rubbish / malba / similar unserviceable, dismantled or waste materials by mechanical means including loading, transporting, unloading to approved municipal dumping ground or as approved by Engineer-in-charge, beyond 50 m initial lead, for all loads including all lifts involved. For 25 Km Lead	0.00	0.00	122.00	0.00	122.00	565.85	Cum	69,033.54	
ITEM No.307	Non SSR item 2	Removing existing existing RCC ballusters as directed by the Engineer In Charge.	0.00	0.00	30.00	0.00	30.00	16.00	Rmt	480.00	
ITEM No.308	SSR 22-23 Page No. 265 Item No : 40.08	Providing and Fixing mat finish stainless steel (of 302 grade) railing with top pipe of 50 mm dia. and vertical pipe of 38 mm dia at 0.60 m c/c or as required and horizontal pipes of 25 mm dia in three rows, all pipes of 2 mm thick including buffing,fabricating fixtures and fastening including pipe base of appropriate diameter and ball base of 75 mm dia above newel post of 75 mm diameter etc. complete (Prior approval of sample and brand by Ex.Engineer is necessary before use)	0.00	0.00	30.00	0.00	30.00	3722.25	Rmt	1,11,667.50	
TOTAL										12,94,39,502.77	
ITEM No.309		ROYALTY	90265.86	45291.13	52148.70	64012.35	251718.04			2,51,718.04	
ITEM No.310		TESTING CHARGES	131255.00	48635.00	33610.00	45235.00	258735.00			2,58,735.00	
TOTAL (CIVIL+ REPAIR)										36,85,81,874.05	

SEPECIFICATION FOR CIVIL WORK
MAHARASHTRA FLIM ,STAGE AND CULTURAL DEVELOPMENT CORPORATION LIMITED
Proposed Repair and upgradation of studio 1,2,5,7,16 & Hospital at Goregaon Filmcity.

Sr.No.	ITEM	Specification	Additional Specification
ITEM No.1	Removing brick bat coba including stacking the spoils as directed with all leads, lifts etc, complete.	As directed by Engineer-in-charge	
	SSR Item No. : 46.14		
ITEM No.2	Removing doors and windows with frames and stacking the materials as directed with all leads, lifts etc. complete.	As directed by Engineer-in-charge	
	SSR Item No. : 46.15		
ITEM No.3	Removing ventilators and small windows with frame and stacking the materials with all leads, lifts etc. complete.	As directed by Engineer-in-charge	
	SSR Item No. : 46.16		
ITEM No.4	Removing cement tiles, or marble or polished shahabad floor or dado without bed concrete including stacking the materials as directed with all leads, lifts etc. complete	As directed by Engineer-in-charge	
	SSR Item No. : 46.19		
ITEM No.5	Removing earthen, stonewate pipe and stacking them as directed with all leads, lifts etc. complete.	As directed by Engineer-in-charge	
	SSR Item No. : 46.27		
ITEM No.6	Removing cast iron or wrought iron or A.C. pipe and stacking them as directed with all	As directed by Engineer in	
	SSR Item No. : 46.28		
ITEM No.7	Dismantling the R.C.C. Work 1:2:4 and sorting out the materials such as steel etc. as directed and stacking them within the specified lead as directed etc. complete.		
	SSR Item No. : 46.29		
ITEM No.8	Removing urinal pans or wash hand basins with frame including disconnecting the sanitary and water supply connections, removing the same carefully and stacking the serviceable materials as and where directed including throwing the unserviceable materials outside etc complete	As directed by Engineer-in-charge	
	SSR Item No. : 46.40		
ITEM No.9	Removing W.C. pans including disconnecting the sanitary and water supply connections, removing and breaking flooring and bed con-crete around pan removing the same carefully and stacking the serviceable materials as adn where directed including throwing the unserviceable materiasls out side etc. carefully and throwing out the refusal outside etc. complete.	As directed by Engineer-in-charge	
	SSR Item No. : 46.41		
ITEM No.10	Removing chockes and leakages from down take G.I/CI/PVC pipe line on walls floor level by using zoola / scaffolding and rectify the same for functioning with all lifts etc. complete.	As directed by Engineer-in-charge	
	SSR Item No. : 46.53		
ITEM No.11	Manually clearing the chockes from under ground drainage line including Inspection chambers with the help of required tools for propre functioning line chamber to chamber etc. complete.	As directed by Engineer-in-charge	
	SSR Item No. : 46.54		
ITEM No.12	Manually clearing by removeing the chockes from Nahni Trap, Gully Trap, Wash basin unit, Sink and WC with the help of required tools for proper functioning the same etc. complete.	As directed by Engineer-in-charge	
	SSR Item No. : 46.55		
ITEM No.13	Lowering down the debris obtained from breaking and removing the cement plaster / burnt brick masonry of the first floor by any means without causing dust nuisance and damage to structure, stacking the same as and where directed including cleaning the site complete.	As directed by Engineer-in-charge	
	SSR Item No. : 46.59		
ITEM No.14	Dismantling aluminium/ Gypsum partitions, doors, windows, fixed glazing and false ceiling including disposal of unserviceable surplus material and stacking of serviceable material with in 50 meters lead asdirected by Engineer-in-charge.	As directed by Engineer-in-charge	
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SEPECIFICATION FOR CIVIL WORK
MAHARASHTRA FLIM ,STAGE AND CULTURAL DEVELOPMENT CORPORATION LIMITED
Proposed Repair and upgradation of studio 1,2,5,7,16 & Hospital at Goregaon Filmcity.

Sr.No.	ITEM	Specification	Additional Specification
ITEM No.15	Dismantling & removing existing sanitary fixtures like bib cocks, shower head, accessories, water supply, sanitary, drainage pipes & fittings & carting away from the complex as per the rules and regulations of the Owner. NON SSR ITEM	As directed by Engineer-in-charge	
ITEM No.16	Removal of steel railing and refixing of railing to submersible bridges including cleaning and repainting etc complete SSR Item No : 8.21	As directed by Engineer-in-charge	
ITEM No.17	Removing Existing Mangalore tiles / AC / GI / Galvalume Sheets/polycarbonate plain and corrugated sheets from roof / cladding / partitions etc., excluding supporting structure but including scaffolding, handling, transporting, sorting and stacking at site lead up to 150m and or disposing etc complete as directed. ITEM No.17	As directed by Engineer-in-charge	
ITEM No.18	ITEM NO.01 Dismantling brick masonry in lime or cement mortar and stacking the materials as directed with all leads, lifts etc. SSR 46.09/296	As directed by Engineer-in-charge	
ITEM No.19	ITEM NO.02 Removing cement tiles, or marble or polished shahabad floor or dado without bed concrete including stacking the materials as directed with all leads, lifts etc. complete SSR 46.19/297	As directed by Engineer-in-charge	
ITEM No.20	ITEM NO.03 Removing brick bat coba including stacking the spoils as directed with all leads, lifts etc, complete. SSR 46.14/296	As directed by Engineer-in-charge	
ITEM No.21	ITEM NO.04 Dismantling aluminium/ Gypsum partitions, doors, windows, fixed glazing and false ceiling including disposal of unserviceable surplus material and stacking of serviceable material with in 50 meters lead as directed by Engineer-in-charge. MCGM/R3-CS-DD-51	As directed by Engineer-in-charge	
ITEM No.22	ITEM NO.05 Removing doors and windows with frames and stacking the materials as directed with all leads, lifts etc. complete. SSR 46.15/296	As directed by Engineer-in-charge	
ITEM No.23	ITEM NO.06 Removing ventilators and small windows with frame and stacking the materials with all leads, lifts etc. complete. SSR 46.16/296	As directed by Engineer-in-charge	
ITEM No.24	ITEM NO :- 07 Removing urinal pans or wash hand basins with frame including disconnecting the sanitary and water supply connections, removing the same carefully and stacking the serviceable materials as and where directed including throwing the unserviceable materials outside etc complete SSR 46.40/298	As directed by Engineer-in-charge	
ITEM No.25	ITEM NO.08 Removing W.C. pans including disconnecting the sanitary and water supply connections, removing and breaking flooring and bed concrete around pan removing the same carefully and stacking the serviceable materials as and where directed including throwing the unserviceable materials out side etc. carefully and throwing out the refusal outside etc complete SSR 46.41/298	As directed by Engineer-in-charge	

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MAHARASHTRA FLIM ,STAGE AND CULTURAL DEVELOPMENT CORPORATION LIMITED
Proposed Repair and upgradation of studio 1,2,5,7,16 & Hospital at Goregaon Filmcity.

Sr.No.	ITEM	Specification	Additional Specification
ITEM No.26	Excavation for foundation in earth, soil of all types, sand, gravel and soft muRmt, including removing the excavated material up to a distance of 50 m. beyond the building area and stacking and spreading as directed, dewatering, preparing the bed for the foundation and necessary back filling, ramming, watering including shoring and strutting etc. complete. (Lift upto 1.5 m.) By Mechanical Means SSR Item No. : 21.02	Bd.A.1 Page One Number 259	
ITEM No.27	Excavation for foundation in earth, soil of all types, sand, gravel and soft muRmt, including removing the excavated material up to a distance of 50 m. beyond the building area and stacking and spreading as directed, dewatering, preparing the bed for the foundation and necessary back filling, ramming, watering including shoring and strutting etc. complete. (Lift 1.5 m to 3.0 m.) By Mechanical Means SSR 22-23 / Item No. 21.04	Bd.A.1 Page One Number 259	
ITEM No.28	Excavation for foundation in earth, soil of all types, sand, gravel and soft muRmt, including removing the excavated material up to a distance of 50 m. beyond the building area and stacking and spreading as directed, dewatering, preparing the bed for the foundation and necessary back filling, ramming, watering including shoring and strutting etc.(Lift from 3 to 4.5m) complete. SSR Item No : 21.04	Bd.A.1 Page One Number 259	
ITEM No.29	Excavation for foundation in earth, soil of all types, sand, gravel and soft muRmt, including removing the excavated material up to a distance of 50 m. beyond the building area and stacking and spreading as directed, dewatering, preparing the bed for the foundation and necessary back filling, ramming, watering including shoring and strutting etc. complete. (Lift 3.0 m. to 4.5 m) By Mechanical Means SSR 22-23 / Item No. 21.03	Bd.A.1 Page One Number 259	
ITEM No.30	Providing dry/trap/granite/quartzite/gneiss rubble stone soling 15 cm to 20 cm thick including handpacking and compacting etc.complete. SSR Item No. : 21.38	Bd.A. 12 PageOne Number 264	
ITEM No.31	Providing internal cement plaster 12mm thick in single coat in cement mortar 1:3 without neeru finish to concrete or brick surfaces, in all position including scaffolding and curing etc. complete. SSR Item No. : 32.05	As directed by Engineer-in-charge	
ITEM No.32	Providing waterproof plaster in W.C. and bath 12 mm thick for dado in cement mortar 1:3 with neat finishing, floating using waterproofing compound at the rate of 1 Kilogram. per bag of cement of approved make and manufacturer and curing etc. complete. (Excluding Tiles) (As directed by Engineer in Charge) SSR Item No. : 31.06	As directed by Engineer-in-charge	
ITEM No.33	Providing and applying two coats of synthetic enamel paint of approved colour to new /old structural steel work and wood work in buildings, including scaffolding if necessary, cleaning and preparing the surface (excluding primer coat) etc. complete. SSR Item No. : 35.07	Bd.P.3 Page One Number 412	
ITEM No.34	Providing and applying Texture plaster with finishing with texture material of approved make in 3 to 4 millimeter thickness on previously plastered surface, including Plaster Groove 6mm thickness or Tape Grooves 35 to 45 mm thickness or as required, in all position including preparing the surface, scaffolding etc. complete. SSR Item No. : 32.32	As directed by Engineer-in-charge	
ITEM No.43	Providing and applying Two coats of wall care Putty on plastered surface and Ceiling and Walls to prepare surface even and smooth of approved make, etc complete. As directed by Engineer in charge SSR Item No. : 32.34	As directed by Engineer-in-charge	
ITEM No.44	Providing and applying two coats of textured synthetic paint of approved shade and quality and one coat of primer before applying textured paint including scaffolding if necessary preparing surface by thoroughly cleaning oil, grease, dirt and other materials as required, etc. complete. SSR Item No. : 35.24	As directed by Engineer-in-charge	

SEPECIFICATION FOR CIVIL WORK
MAHARASHTRA FLIM ,STAGE AND CULTURAL DEVELOPMENT CORPORATION LIMITED
Proposed Repair and upgradation of studio 1,2,5,7,16 & Hospital at Goregaon Filmcity.

Sr.No.	ITEM	Specification	Additional Specification
ITEM No.45	Providing and applying two coats of exterior acryallic emulsion paint confirming to corresponding I.S. of approved manufacture and of approved colour to the plastered surfaces including cleaning ,preparing the plaster surface, applying primer coat ,scaffolding if necessary, and watering the surface for two days etc complete. SSR Item No. : 35.25	As directed by Engineer-in-charge	
ITEM No.46	Providing and applying priming coat on concrete/ masonry/ Asbestos Cement plastered surfaces including scaffolding if necessary, preparing the surface by thoroughly cleaning oil, grease, dirt and other foreign matter and sand papering as required etc. complete. SSR Item No. : 35.21	As directed by Engineer-in-charge	
ITEM No.47	Providing and applying plastic emulsion paint of approved quality, colour and shade to old and new surfaces in two coats including scaffolding, preparing the surface. etc. complete. SSR Item No. : 36.12	Bd.P.6 Page One Number 414	
ITEM No.48	Providing and applying two coats Apex Ultima Puranature Anti-Pollution Or equivalent approved brand, paint should decomposes organic substances and inorganic gases(NOx, VOC's, CO, SOx, formaldehydes, etc.) in presence of natural or artificial light. It contains Graphene and nanoparticles of titanium oxide. and Absorbs CO2 (4.8 Kilogram/15 l). plaster crack should be filled by Acrylic base Crack seal/Textured Crack filler, Paint has to applied on one coat of Apex Ultima Puranature Anti-Pollution Primer or Equivalent. Warranty Should be given by the Manufaturer The work should be done by the Manufacturer Recommended applicator and he should be able to furnish stage wise onsite technical reports from the concerned company technologist. SSR Item No. : 50.79	As directed by Engineer-in-charge	
ITEM No.49	Providing and fixing 450mm x 550mm size superior type Belgium mirror with 16mm dia. nickel plated towel rod etc. complete. SSR Item No : 42.20	As directed by Engineer-in-charge	
ITEM No.50	Providing and Laying hot applied thermoplastic road marking strip on Bituminous Surface of specified shade/ colour of 2.5 mm thick including 1.5 Refractive index reflectorizing glass beads @ 250gm/sqm .Thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC 35:2015. Initial Dry reflectivity RL shall be > 250 mcd/sqm/lux measured in the initial 7 days and sustained reflectivity RL of 100 mcd/sqm/ lux and Qd of 100 mcd/sqm/ lux measured at the end of 2 years by means of a Standard Reflectometer of Zehntner, Easylux, Delta make capable of measuring RL & QD both according to IRC 35:2015 clause 15.5. The finished surface to be level, uniform, and free from streaks and holes complete as per direction of Engineer-in-charge and in accordance with applicable specifications.(Refer MORTH Clause 803 for technical Specification and Performance for IRC 35:2015). SSR Item No : 6.12 a	MORTH 803.4	
ITEM No.51	ITEM NO .09 Providing second class Burnt Brick masonry with conventional/ I.S. type bricks in cement mortar 1:6 in superstructure including striking joints, raking out joints, watering and scaffolding etc. Complete SSR 27.05 / 197	Bd.G.5 Page One Number 315	
ITEM No.52	ITEM NO.10 Removing the existing cement plaster of any thickness without causing dust nuisance and stacking the debris upto a distance of 50 metres or spreading in the compound and cleaning the site etc. complete. SSR 32.33/211	As directed by Engineer-in-charge	
ITEM No.53	ITEM NO. 11 Providing internal cement plaster 12mm thick in single coat in cement mortar 1:4 without neeru finish to concrete or brick surfaces, in all positions including scaffolding and curing etc. complete. SSR 32.04 / 209	Bd. L.2 Page One Number 368	

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Proposed Repair and upgradation of studio 1,2,5,7,16 & Hospital at Goregaon Filmcity.

Sr.No.	ITEM	Specification	Additional Specification
ITEM No.53A	ITEM NO :- 12 Providing sand faced plaster externally in cement mortar using approved screened sand, in all positions including base coat of 15 mm thick in cement mortar 1:4 using waterproofing compound at 1Kilogramper cement bag curing the same for not less than 2 days and keeping the surface of the base coat rough to receive the sand faced treatment 6 to 8 mm thick in cement mortar 1:4 finishing the surface by taking out grains and curing for fourteen days scaffolding etc.complete. SSR 32.11 / 209	Bd.L.7 Page One Number 369	
ITEM No.54	ITEM NO .12 Providing and applying plaster / wall punning with plaster of paris (with plaster of paris material of Ambuja / Mor Chap or equivalent make) in 10 to 13 millimeter thickness to previously plastered surface / or on newly brick surface (Excluding rough cast plaster) in all position including preparing and Finishing the surface scaffolding etc complete SSR 32.30/211	As directed by Engineer-in-charge	
ITEM No.55	ITEM NO .13 Providing and applying priming coat on concrete/ masonry/ Asbestos Cement plastered surfaces including scaffolding if necessary, preparing the surface by thoroughly cleaning oil, grease, dirt and other foreign matter and sand papering as required etc. complete. SSR 35.21 / 225	As directed by Engineer-in-charge	
ITEM No.56	ITEM NO. 14 Providing and applying plaster with plaster of paris in 6mm thickness to previously plaster surface in all position including preparing the surface scaffolding etc. complete. SSR 32.27/210	As directed by Engineer-in-charge	
ITEM No.57	ITEM NO. 15 Providing and applying Royale Luxury Emulsion of approved make on internal wall surface as detailed below Scrapping for surface with emery paper and wipe clean for area. wall primer with brush by adding mineralturpentine oil by 8 to 10 % or water by 15 to 20% allowing to dry for 6 to 8 hoursAfter applying acrylic wall putty with appropriate prpportion of water of allow to dry for period of 4 to 6 hours of activity. Scrapping with emery paper and wipe clean Applying paints Royale Luxury emulsion 1st coat with brush water content water 40 to 45% or 65 to 70% by role Applying paints Royale luxury emulsion 2nd coat with brush with water content 40 to 45% or 65 to 70 % by roller. (With prior approval of S.E.) SSR 36.21/229	As directed by Engineer-in-charge	
ITEM No.58	ITEM NO. 16 Providing and applying plastic emulsion paint of approved quality, colour and shade to new surface in three coats including scaffolding, preparing the surface. (excluding primer coat) etc. complete. SSR 36.14/228	Bd.P.6 Page One Number 414 and Pre-approval of Superintending Engineer	
ITEM No.59	ITEM NO :- 17 Providing and applying two coats of synthetic enamel paint of approved colour to new/old structural steel work and wood work in buildings, including scaffolding if necessary, cleaning and preparing the surface (excluding primer coat) etc. complete. SSR 35.07 /223	Bd.O.5 Page One Number 405	
ITEM No.60	Providing and fixing machine cut machine polished 18 mm to 20 mm thick telephone black / Amba White / Cat bary brown / RBI red / Ocean Brown granite stone for treads and risers of steps and staircases of approved colour and shade with rounded moulding and three grooved line for the treads on bed of 1:4 Cement mortar including float filling joints with neat cement slurry curing polishing and cleaning etc. complete. SSR Item No : 33.35	Bd. M.22B/Page One Number 390	

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Proposed Repair and upgradation of studio 1,2,5,7,16 & Hospital at Goregaon Filmcity.

Sr.No.	ITEM	Specification	Additional Specification
ITEM No.61	Providing and laying vitrified mirror /glossy finish tiles having size 590 mm to 605 mm x 590 mm to 605 mm of 8 to 10 mm thickness and confirming to IS.15622 -2006 (group Bla) of approved make, shade and pattern for dado and skirting in required position fixed in 1:4 cement mortar including neat cement float, filling joints, curing and clearing etc. complete	Bd.M. 12 Page One Number385	
	SSR Item No : 33.41		
ITEM No.62	Providing and laying vitrified matt fininsh tiles having size 590 mm to 605 mm x to 605 mm of 8 to 10 mm thickness and confirming IS. 15622-2006 (Group Bla) of approved make, shade and pattern for flooring in required position laid on a bed of 1:4 cement morar including neat cement float, filling joints, curing and cleaning etc. complete.	Bd.M.12 Page One Number 385	
	SSR Item No : 33.42		
ITEM No.63	Providing and laying vitrified rustic matt stone finish tiles having size 590 mm to 605 mm x 590 mm to 605 mm of 8 to 10mm thickness and confirming to IS. 15622-2006 (Group Bla) of approved make, shade and pattern for flooring in required position laid on a bed of 1:4 cement mortar including neat cement float, filling joints, curing and cleaning etc. complete.	Bd.M.12 Page One Number 385	
	SSR Item No : 33.44		
ITEM No.64	Providing and laying vitrified rustic matt stone finish tiles having size 590 mm to 605 mm x 590 mm to 605 mm to 8 to 10mm thickness and confirming to IS. 15622-2006 (Group Bla) of approved make, shade and pattern for dado and skirting in required position fixed in 1:4 cement mortar including neat cement float, filling joints, curing and cleaning. etc. complete.	Bd.M.12 Page One Number 385	
	SSR Item No : 33.45		
ITEM No.65	Providing and fixing green marble of 18 to 20 mm thick for door frame/ dado/ window boxing etc. On C.M. 1:6 including filling joints with polymer base filler nosing / moulding the sharp edges wherever necessary, curing, etc. complete.	Bd. M. 12	
	SSR Item No : 33.48		
ITEM No.66	Providing and fixing heavy duty inter locking concrete Grey paving blocks of 60 mm thickness of having a strength of 300 Kilogram/Sq.cm. of approved quality and shape on a bed of crushed sand of 25 to 30 mm thick including skirting joints and cleaning etc. complete.	As directed by Engineer-in-charge	
	SSR Item No : 33.49		
ITEM No.67	Providing and fixing heavy duty inter locking concrete Grey paving blocks of 80 mm thickness of having a strength of 300 Kilogram/Sq.cm. of approved quality and shape on a bed of crushed sand of 25 to 30 mm thick including skirting joints and cleaning etc. complete.	As directed by Engineer-in-charge	
	SSR Item No : 33.50		
ITEM No.68	Providing and fixing heavy duty inter locking concrete Coloured paving blocks of 60 mm thickness of having a strength of 300 Kilogram/Sq.cm. of approved quality and shape on a bed of crushed sand of 25 to 30 mm thick including skirting joints and cleaning etc. complete	As directed by Engineer-in-charge	
	SSR Item No : 33.51		
ITEM No.69	Providing and fixing heavy duty inter locking concrete Coloured paving blocks of 80 mm thickness of having a strength of 300 Kilogram/Sq.cm. of approved quality and shape on a bed of crushed sand of 25 to 30 mm thick including skirting joints and cleaning etc. complete	As directed by Engineer-in-charge	
	SSR Item No : 33.52		
ITEM No.70	Providing and laying Vitrified mirror/glossy finish having decorative type of size 590 millimeter to 605 millimeter x 590 millimeter to 605 millimeter of 8 to 10 millimeter thickness (on a existing flooring) with bonding chemical and confirming to IS 15622-2006 (Group Bla) of approved make shade and pattern for flooring in required position laid on a bed of bonding chemical filling joints curing and cleaning etc . complete.	Bd. M-12 page One Number 385	
	SSR Item No : 33.58		

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Sr.No.	ITEM	Specification	Additional Specification
ITEM No.71	Providing and laying Vitrified MATT finish having decorative type of size 600 millimeter x 600 millimeter of 8 to 10 millimeter thickness (on a existing flooring) with bonding chemical and confirming to IS 15622-2006 (Group Bla) of approved make shade and pattern for flooring in required position laid on a bed of bonding chemical filling joints curing and cleaning etc .complete. SSR Item No : 33.59	Bd. M-12 page One Number 386	
ITEM No.72	Providing and laying Vitrified RUSTIC MATT STONE finish having decorative type tiles of size 600 millimeter x 600 millimeter of 8 to 10 millimeter thickness (on a existing flooring) with bonding chemical and confirming to IS 15622-2006 (Group Bla) of approved make shade and pattern for flooring in required position laid on a bed of bonding chemical filling joints curing and cleaning etc. complete. SSR Item No : 33.62	Bd. M-12 page One Number 386	
ITEM No.73	Providing and laying Vitrified STONE EFFECT FINISH having decorative type tiles of size 590 millimeter to 605 millimeter x 590 millimeter to 605 millimeter of 8 to 10 millimeter thickness (on a existing flooring) with bonding chemical and confirming to IS 15622-2006 (Group Bla) of approved make shade and pattern for flooring in required position laid on a bed of bonding chemical filling joints curing and cleaning etc. complete. SSR Item No : 33.65	Bd. M-12 page One Number 385	
ITEM No.74	Providing and laying telephone black / Amba White / Cadburybrown / Ruby red / Ocean Brown granite stone of 18 to 20 mm thick for door frame/ dado/ window boxing etc. On C.M. 1:6 including filling joints with polymer base filler nosing/moulding the sharp edges wherever necessary, curing, etc. complete. SSR Item No : 33.68	As directed by Engineer-in-charge	
ITEM No.75	Providing & fixing 20mm +/- 2mm thick both side mirror polished approved colour Granite Urinal partitions of 600 mm wide & 1550 mm high with round edges moulding and fixed in C.M. 1:2and filling joints in white cement mixed with pigment to match the colour of granite including curing, cleaning etc.complete.(Basic Rate Rs 3600/sqm) SOR-23 /R3-CS-FL-93 /Pg 109	As directed by Engineer-in-charge	
ITEM No.76	Providing and fixing white vitreous china flat back half stall urinal of size 580x380x350mm with white PVC automatic flushing cistern,with fittings, standard size C.P. brass flush pipe, spreaders with unions and clamps (all in C.P. brass) with waste fitting as per IS :2556, C.I. trap with outlet grating and other couplings in C.P. brass including painting of fittings and cutting and making good the walls and floors wherever required : Range of two half stall urinals with 5 litre P.V.C. automatic flushing cistern. SOR-23 /R3-CS-PS-5-b Range of three half stall urinals with 10 litre P.V.C. automatic flushing cistern. SOR-23 /R3-CS-PS-5-C	As directed by Engineer-in-charge	
ITEM No.77	Providing & Fixing in position, Carpet more than 800+ gsm, made with100% stain proof fibres of approved make along with 5mm underlay as per Architectural & Acoustical Design & Instructions & Complete in all aspects including all materials labour,finishing etc complete SSR Item No. : 51.13	As directed by Engineer-in-charge	
ITEM No.78	Providing and fixing 15 to 20mm thk. rough natural stone tiles as specified below of approved quality, pattern and colour for flush/projected skirting and risers including preparing the surface and levelling in the desired line, backing of 20 thk. cement mortar in porportion 1:3, square cut top edge or chamfered top edge in cement mortar 1:3, cement float, machine cutting, leveling, jointing, filling the joints with neat cement or pigment mixed with cement, polishing, finishing, curing etc complete as directed by Engineer In Charge. Steel gray Granite tiles/slab for height upto 150 mm SOR-23/R3-CS-FL-22-g/78	As directed by Engineer-in-charge	

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Sr.No.	ITEM	Specification	Additional Specification
ITEM No.79	ITEM NO .18 Providing and laying vitrified mirror / glossy finish tiles decorative type having size 590 mm to 605 mm x 590 mm to 605 mm of 8 to 10 mm thickness and confirming to IS. 15622-2006 (group Bla) of approved make, shade and pattern for flooring in required position laid on a bed of 1:4 cement mortar including neat cement float, filling joints, curing and clearing etc. complete. a) Flooring SSR 33.40 / 217	Bd.M. 12 Page One Number385	
ITEM No.79A	ITEM NO :- 19 Providing and applying two coats of synthetic enamel paint of approved colour to new/old structural steel work and wood work in buildings, including scaffolding if necessary, cleaning and preparing the surface (excluding primer coat) etc. complete. SSR 35.07 /223	Bd.O.5 Page One Number 405	
ITEM No.80	ITEM NO .19 Providing and laying vitrified mirror / glossy finish tiles having size 590 mm to 605 mm x 590 mm to 605 mm of 8 to 10 mm thickness and confirming to IS. 15622-2006 (group Bla) of approved make, shade and pattern for dado and skirting in required position fixed in 1:4 cement mortar including neat cement float, filling joints, curing and clearing etc.complete SSR 33.41 / 217	Bd.M. 12 Page One Number385	
ITEM No.81	ITEM NO.20 Providing and laying vitrified matt fininsh tiles having size 590 mm to 605 mm x to 605 mm of 8 to 10 mm thickness and confirming IS. 15622-2006 (Group Bla) of approved make, shade and pattern for flooring in required position laid on a bed of 1:4 cement morar including neat cement float, filling joints, curing and cleaning etc. complete. SSR 33.42 /217	Bd.M. 12 Page One Number385	
ITEM No.82	ITEM NO .21 Providing and laying Antiskid Ceramic tiles of approved quality of size 30 cm x 30 cm and confirming to IS 15622-2006 (Group-B IIA) for antiski flooring in required position laid on a bed of 1:4 cement mortar including cement float, filling joint with cement slurry cleaning curing etc. complete. SSR 33.67/220	Bd. M-12 page One Number 385	
ITEM No.83	ITEM NO .22 Providing and laying ceramic tiles having size 30 cm. x 60 cm. confirming to corresponding I.S. for dado and skirting in required position with readymade adhesive mortar of approved quality on plaster of 1:2 cement mortar including joint filling with white/ colour cement slurry cleaning curing etc. complete. SSR 33.27/215	Bd.M.13 Page One Number 386.	
ITEM No.84	ITEM NO.23 Providing and laying hand made tile of various size and approved designs for dado and skirting in required position with readymade adhesive mortar of approved quality on plaster of 1:2 cement mortar including joint filling with white/ colour cement slurry cleaning curing etc. complete. RA	As directed by Engineer-in-charge	
ITEM No.85	ITEM NO .24 Providing and laying machine cut machine Polished Kota stone flooring 25mm to 30mm thick and required width in plain/ diamond pattern on bed of 1:6 C. M. including cement float, filling joints with neat cement slurry, curing, polishing and cleaning etc. complete. SSR 33.06 / 213	Bd.M.3 Page One Number 380	
ITEM No.86	ITEM NO .25 Providing and laying telephone black / Amba White / Cadburybrown / Ruby red / Ocean Brown granite stone of 18 to 20 mm thick for door frame/ dado/ window boxing etc. On C.M. 1:6 including filling joints with polymer base filler nosing/moulding the sharp edges wherever necessary, curing, etc. complete. SSR 33.68/220	As directed by Engineer-in-charge	

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Sr.No.	ITEM	Specification	Additional Specification
ITEM No.87	ITEM NO .26 Providing and fixing frame with / without ventilator of size as specified with Country cut teak wood for doors and windows including chamfering, rounding, rebating, iron holdfast of size 300mm x 40mm x 5mm with oil painting, etc. complete SSR 39.01 / 245	As directed by Engineer-in-charge	
ITEM No.88	Providing and fixing white vitreous china flat back or wall corner type lipped front urinal basin of 430x260x350mm and 340x410x265mm sizes respectively with automatic flushing cistern with standard flush pipe and C.P. brass spreaders with brass unions and G.I clamps complete, including painting of fittings and brackets, cutting and making good the walls and floors wherever required : Range of two urinal basins with 5 litre white P.V.C. automatic flushing cistern	As directed by Engineer-in-charge	
	SOR-23 /R3-CS-PS-4-b		
ITEM No.89	Providing and fixing water closet squatting pan (Indian type W.C. pan) with 100mm sand cast Iron P or S trap, 10 litre low level white P.V.C. flushing cistern, including flush pipe, with manually controlled device (handle lever) conforming to IS : 7231, with all fittings and fixtures complete including cutting and making good the walls and floors wherever required : White Vitreous china Orissa pattern W.C. pan of size 580x440mm with integral type foot rests.	As directed by Engineer-in-charge	
	SOR-23 /R3-CS-PS-1-a		
ITEM No.90	Providing and fixing white vitreous china pedestal type water closet (European type W.C. pan) with seat and lid, 10 litre low level white P.V.C. flushing cistern, including flush pipe, with manually controlled device (handle lever), conforming to IS : 7231, with all fittings and fixtures complete including cutting and making good the walls and floors wherever required : W.C. pan with ISI marked white solid plastic seat and lid	As directed by Engineer-in-charge	
	SOR-23 /R3-CS-PS-2-a		
ITEM No.91	Providing and fixing wash basin with C.I. brackets, 15 mm C.P. brass pillar taps,32 mm C.P. brass waste of standard pattern,including painting of fittings and brackets, cutting and making goodthe walls wherever require : White Vitreous China Wash basin size 630x450 mm with a pair of 15 mm C.P. brass pillar taps.	As directed by Engineer-in-charge	
	SOR-23 /R3-CS-PS-7-a		
ITEM No.92	Providing and fixing 600x450 mm bevelled edge mirror of superior glass (of approved quality) complete with 6 mm thick hard board ground fixed to wooden cleats with C.P. brass screws and washers complete. SOR-23/R3-CS-PS-30/185	As directed by Engineer-in-charge	
ITEM No.93	Providing and fixing mirror of superior glass (of approved quality) and of required shape and size with plastic moulded frame of approved make and shade with 6 mm thick hard board backing Rectangular shape 1500x450 mm SOR-23/R3-CS-PS-31-d	As directed by Engineer-in-charge	
ITEM No.94	Providing and fixing Health Faucet with one metre long easy flex tube in chrome finish and wall flange SOR-23 / R3-CS-PS-204	As directed by Engineer-in-charge	
ITEM No.95	Providing and fixing C.P. Angular stop clock with wall flange Jaquar make or equivalent continental (CAT.NO. CON-059) including necessary sockets/union nut etc. complete. Spec No. As directed by Engineer in charge Notes: The rates quoted shall include cost of necessary consumables like brass screws, CP extension nipple of approved make, dia and length, wooden plugs, white cement, sealants etc. (Make : Jaquar, Model No :CON-059 KN cop- or Equivalent) RA For Angular Stop Clock	As directed by Engineer-in-charge	

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Sr.No.	ITEM	Specification	Additional Specification
ITEM No.96	Providing and fixing wall mixer with overhead shower,shower arm,hand shower with wall bracket having flow rate up to 12 liters/minutes of Jaquar/Cera/Hindware /Perryware or equivalent make including all necessary pipes,fittings etc.complete as directed by Engineer In Charge.(Make shall conform to manufacturer's Green product and shall got approved from the Engineer In Charge.) SSR Item No : 48.34	As directed by Engineer-in-charge	
ITEM No.97	Providing and fixing C.P. Brass two way bib cock with flange of approved quality and make. SOR-23 / R3-CS-PS-203/pg 201	As directed by Engineer-in-charge	
ITEM No.98	Providing and fixing 15 mm diameter PVC Aqua kraft type of approved make super jet spray with flange 2 in 1 faucet 1.50 metre long including all accessories etc complete SSR Item No : 48.29		
ITEM No.99	Providing and fixing JAQUAR MAKE, C.P. Towel rail 24" continental (Cat. No. ACN 1111N) including brackets, all fixures, fittings and making goodthe wall wherever required etc. complete. RA for Tower Rod	As directed by Engineer-in-charge	
ITEM No.100	Providing and fixing C.P. Handshower (health faucet) 1m.PVC tube with wall hook Jaquar make (Cat. No. ALD 563) including all fixures, fittings and making goodthe wall wherever required etc. complete. RA for Handshower	As directed by Engineer-in-charge	
ITEM No.101	Providing and fixing C.P. Angular stop clock with wall flange Jaquar make or equivalent continental (CAT.NO. CON-059) including necessary sockets/union nut etc. complete. Spec No. As directed by Engineer in charge SSR Item No. : 42.79	As directed by Engineer-in-charge	
ITEM No.102	Providing and fixing C.P. pillar cock long neck with aerator jaquar or equivalent make continental (CAT.NO. CON -021) including necessary sockets/union nut etc. complete. Spec No. As directed by Engineer in charge. SSR Item No. : 42.82	As directed by Engineer-in-charge	
ITEM No.103	Providing and fixing JAQUAR MAKE, C.P. Towel rail 24" continental (Cat. No. ACN 1111N) including brackets, all fixures, fittings and making goodthe wall wherever required etc. complete. Sr. No 228.Pg No- 536	As directed by Engineer-in-charge	
ITEM No.104	Providing and fixing JAQUAR MAKE,HOTELIER series Model No. 1551 Toilet Paper Holder Recessed type (S.Steel) including cutting and making goodthe wall wherever required etc complete SOR-23/R3-CS-PS-254	As directed by Engineer-in-charge	
ITEM No.105	Providing and fixing ISI marked make CP brass liquid soap dispensers with CP brass bracket capacity 250 ml. SOR-23/R3-CS-PS-261	As directed by Engineer-in-charge	
ITEM No.106	Providing & Fixing 100mm diameter Nahani trap Jali in steel finish with necessary fixing required to make the item well functional. SOR-23/R3-CS-PS-259	As directed by Engineer-in-charge	
ITEM No.107	Providing and fixing on walls/ ceiling/ floor 15 mm dia. CPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete. SSR 22-23 / I.N. 42.55 / Pg. 280	BD.V 5 page551 and as directed by Engineer in charge	
ITEM No.108	Providing and fixing on walls/ceiling/floor 20 mm dia. CPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete. SSR 22-23 / I.N. 42.56 / Pg. 280	BD.V 5 page551 and as directed by Engineer in charge	

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Sr.No.	ITEM	Specification	Additional Specification
ITEM No.109	Providing and fixing on walls/ ceiling/ floor 25 mm dia. CPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	BD.V 5 page551 and as directed by Engineer in charge	
	SSR 22-23 / I.N. 42.57 / Pg. 280		
ITEM No.110	Providing and fixing on walls/ ceiling/ floor 32 mm dia. CPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	BD.V 5 page551 and as directed by Engineer in charge	
	SSR 22-23 / I.N. 42.58 / Pg. 280		
ITEM No.111	Providing and fixing on walls/ ceiling/ floor 40 mm dia. CPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	BD.V 5 page551 and as directed by Engineer in charge	
	SSR 22-23 / I.N. 42.59 / Pg. 280		
ITEM No.112	Providing and fixing on walls/ ceiling/ floor 50 mm dia. CPVC pipe with necessary fittings, remaking good the demolished portion etc. complete.	BD.V 5 page551 and as directed by Engineer in charge	
	SSR 22-23 / I.N. 42.60 / Pg. 280		
ITEM No.113	Providing and fixing on walls/ceiling/floor 20 mm dia. uPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	BD.V 5 page551 and as directed by Engineer in charge	
	SSR 22-23 / I.N. 42.90 / Pg. 284		
ITEM No.114	Providing and fixing on walls/ ceiling/ floor 25 mm dia. uPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	BD.V 5 page551 and as directed by Engineer in charge	
	SSR 22-23 / I.N. 42.91		
ITEM No.115	Providing and fixing on walls/ ceiling/ floor 32 mm dia. uPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	BD.V 5 page551 and as directed by Engineer in charge	
	SSR 22-23 / I.N. 42.92 / Pg. 284		
ITEM No.116	Providing and fixing on walls /ceiling/ floor 40 mm dia. uPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete.	BD.V 5 page551 and as directed by Engineer in charge	
	SSR 22-23 / I.N. 42.93 / Pg. 284		
ITEM No.117	Providing and fixing on walls/ ceiling/ floor 50 mm dia. uPVC pipe with necessary fittings, remaking good the demolished portion etc. complete.	BD.V 5 page551 and as directed by Engineer in charge	
	SSR 22-23 / I.N. 42.94 / Pg. 284		
ITEM No.118	Providing, fixing and testing heavy quality gun metal or brass ball valve with screwed ends 20kgm class on GI or copper pipe lines (Leader/ZOLOTO make) 20 mm (3/4") dia.	As directed by Engineer-in-charge	
	ITEM No.118		
ITEM No.119	Providing, fixing and testing heavy quality gun metal or brass ball valve with screwed ends 20kgm class on GI or copper pipe lines (Leader/ZOLOTO make) 25 mm (1") dia.	As directed by Engineer-in-charge	
	ITEM No.119		
ITEM No.120	Providing, fixing and testing heavy quality gun metal or brass ball valve with screwed ends 20kgm class on GI or copper pipe lines (Leader/ZOLOTO make) 32 mm (1 1/4") dia.	As directed by Engineer-in-charge	
	ITEM No.120		

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Sr.No.	ITEM	Specification	Additional Specification
ITEM No.121	Providing, fixing and testing heavy quality gun metal or brass ball valve with screwed ends 20kgm class on GI or copper pipe lines (Leader/ZOLOTO make) 40 mm (1 1/2") dia.	As directed by Engineer-in-charge	
	ITEM No.121		
ITEM No.122	Providing, fixing and testing heavy quality gun metal or brass ball valve with screwed ends 20kgm class on GI or copper pipe lines (Leader/ZOLOTO make) 50 mm (2") dia.	As directed by Engineer-in-charge	
	ITEM No.122		
ITEM No.123	Providing and fixing in position uPVC/SWR (Soil/Waste/Rain) pipe of type-B 75 mm dia. in any position including all fittings and accessories, making joints / connections water tight with solvent cement, scaffolding if necessary and making good the damages if any (excluding excavation and refilling the trenches) etc. complete as specified and directed.(All fittings and accessories like clamps,etc. should be of same brand. No separate payment shall be made for fittings and accessories).	As directed by Engineer-in-charge	
	ITEM No.123		
ITEM No.124	Providing and fixing in position uPVC/SWR (Soil/Waste/Rain) pipe of type-B 110 mm dia. in any position including all fittings and accessories, making joints / connections water tight with solvent cement, scaffolding if necessary and making good the damages if any (excluding excavation and refilling the trenches) etc. complete as specified and directed.(All fittings and accessories like clamps,etc. should be of same brand. No separate payment shall be made for fittings and accessories).	As directed by Engineer-in-charge	
	ITEM No.124		
ITEM No.125	Providing and fixing in position uPVC/SWR (Soil/Waste/Rain) pipe of type-B 160 mm dia. in any position including all fittings and accessories, making joints / connections water tight with solvent cement, scaffolding if necessary and making good the damages if any (excluding excavation and refilling the trenches) etc. complete as specified and directed.(All fittings and accessories like clamps,etc. should be of same brand. No separate payment shall be made for fittings and accessories).	As directed by Engineer-in-charge	
	ITEM No.125		
ITEM No.126	Providing and fixing P.V.C. Rain water pipes of 160mm outer diameter and having wall thickness of 2.2 to 2.7 mm conforming to I.S. 13592-1992 including proper rainwater receiving recess with P.V.C. plug, bend, necessary fittings, such as, offsets, shoes, including fixing the pipe on wall using approved wooden cleats projecting 25mm to 40mm from face of wall a fixing with clips of approved quality and One Number ,filing the joint using rubber gasket with solvent cement and properly resting the shoe of pipes o C.C. or masonry blocks, including necessary scaffolding and maintenance for 3 yrs for any leakages or dislocations of pipes. All the P.V.C. fittings and additional 2 piece socket clips shall be got approved from engineer in charge etc. complete.	As directed by Engineer-in-charge	
	SSR Item No : 42.85		
ITEM No.127	Supplying, laying, jointing & testing UPVC Drainage class pipes of FoamcoreAstral(SN 8) or equivalent make in solvent cement joint including leveling with cutting the pipe to required length, roughining of pipe at wall joint including socket as directed: 200 mm pipe	As directed by Engineer-in-charge	
	SOR-23/R3-CS-PS-208-b/202		
	Booster Pump system (At Terrace Level)		
	Supply, Installation, Testing And Commissioning Of Compact Self Contained Skid Mounted factory fitted & factory tested Hydropneumatic Booster Pump System As Follows:		
	In-Line, Multisage, centrifugal pumps with SS-304 casing and impeller and SS-316 shaft, CI base & head TEFC motor (with mechanical seal)		
	(Vendor to submit performance curves and technical catalog of the proposed model for review & information)		

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Sr.No.	ITEM	Specification	Additional Specification
ITEM No.128	The pump shall be selected for performance at best efficiency point. However, the pump selection shall be suitable for performance with set point @ + 20% of the rated head.		
	Flow rate : As described below		
	Head : As described below Mtr		
	Purpose : Domestic/ Flush/ DM/ Drinking water supply		
	External Pump mounted or wall mounted microprocessor PID controller and frequency inverter integrated in a single body or as separate components 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 protocol through RS485 port (Variable Frequency Drive). System should be capable to compensate for frictional losses at lower flows. All alarms should be displayed in the controller. System should be equipped with dry running protection.	As directed by Engineer-in-charge	
	Quantity : 1 Nos.		
	Complete (Skid mounted wall mounted / floor mounted) electrical control panel comprising of all accessories such as PLCs, pressure switches, pressure transducers, control wiring and any other necessary imports etc. (list to be provided by the vendor). Panel Should be with IP 54 Class of protection.		
	Precharged diaphragm pressure vessel with food grade membrane, charging connection, connected to outlet header with necessary flanges, gaskets, isolating valves, nuts/bolts etc complete.		
	Set of accessories such as pressure switches, pressure transducers, inter connecting power and control cabling etc. complete		
	Including accessories like NRVs, Y Stainer, isolating valves, SS-304 (non-Magnetic) suction and delivery header, pressure gauge, MS base frame (Synthetic enamel painted over a coat of primer) etc.		
	Booster Pump System (1 Set = 1W + 1S)		
ITEM No.129	ITEM NO .56 Providing and fixing European type wall-hung white water closet of approved make with push valve concealed type with cover plate 32mm size of approved make including soil pipe, vent pipe up to outside face of wall ,100mm dia. G.I. plug bend inlet pipe all fittings, cutting and making good walls, floors etc. complete. SSR 42.86	As directed by Engineer-in-charge	
ITEM No.130	ITEM NO.57 Providing and fixing 1st class white glazed earthenware Orissa Type W.C. Pan 580 mm dia including P or S trap cast iron soil and vent pipe upto the outside face of the wall (1:5:1 0) cement concrete bedding 15 mm thick, 10 liter P.V.C. flushing cistern with all necessary pipe connection etc. complete SSR 42.33	As directed by Engineer-in-charge	
ITEM No.131	ITEM NO .58 Providing and fixing Oval Type Under Counter Wash Hand Basin of 420 x 590 x 195mm size with pillar cock, C.P.Angular stop cock, long thread of approved make continental including SS bottle trap of necessary pipe connection up to the outside face of the wall, having Telephonic Black / Colour Granite of 180 mm thick fixed on Black Kadappa Framework, etc. Complete as directed by Engineer in charge. SSR 48.35 /315	As directed by Engineer-in-charge	
ITEM No.132	ITEM NO.59 Providing and fixing C.P. BIB cock with wall flange of approved make including necessary sockets/ union nut etc. complete. SSR 42.83	As directed by Engineer-in-charge	
ITEM No.133	ITEM NO.60 C.P.angular stop cock with wall flange jaquar make continental (Cat.No. CON- 059) SSR 216	As directed by Engineer-in-charge	

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Sr.No.	ITEM	Specification	Additional Specification
ITEM No.134	ITEM NO.61 Providing and fixing C.P. a 2-Way BIB cock with wall flange of approved make including necessary sockets/ union nut etc. complete as directed by Engineer in charge. SSR 48.39	As directed by Engineer-in-charge	
ITEM No.135	ITEM NO. 62 Providing and fixing 15 mm diameter PVC Aqua kraft type of approved make super jet spray with flange 2 in 1 faucet 1.50 metre long including all accessories etc complete SSR 43.39	As directed by Engineer-in-charge	
ITEM No.136	ITEM NO.63 Providing and fixing 450mm x 550mm size superior type Belgium mirror with 16mm dia. nickel plated towel rod etc. complete. SSR 42.20	As directed by Engineer-in-charge	
ITEM No.137	ITEM NO.64 C.P.Toilet paper holder jaquar make continental (Cat. No. AQ 7751) SSR 232	As directed by Engineer-in-charge	
ITEM No.138	ITEM NO.65 Supplying and erecting storage type water heater 15 litres capacity having standing loss <0.419 kWh / 24 hour / 45°C, high impact resistance engineering plastic body with anti corrosive high grade steel inner tank heating element having hard water & corrosion protection, with minimum 3 safety protections (i.e. thermostat & thermal cut-out, multi function valve) with total pressure 8 bar withstanding capacity duly tested and marking sr. no. and date of erection complete. specification no. AP-WH/STWH CSR 3-1-1	As directed by Engineer-in-charge	
ITEM No.139	ITEM NO :-66 Providing and fixing diverter with overhead shower,shower arm,spout,hand shower with wall bracket having flow rate up to 12 liters/minutes of Jaquar/Cera/Hindware /Perryware or equivalent make including all necessary pipes,fittings etc.complete as directed by Engineer In Charge.(Make shall conform to manufacturer's Green product and shall got approved from the Engineer In Charge.) 48.33 /315	As directed by Engineer-in-charge	
ITEM No.140	WATER SUPPLY		
ITEM No.141	ITEM NO :-67 Providing and fixing 75 mm dia stabiliser pipe/ P.V.C. soil vent/waste pipe and with necessary fixtures and fitting such as bends, tees, single junctions, slotted vent, clamps etc. complete SSR 42.51	As directed by Engineer-in-charge	
ITEM No.142	ITEM NO :-68 Providing and fixing on walls/ ceiling/ floor 15 mm dia. CPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete. SSR 42.55	BD.V 5 page551 and as directed by Engineer in charge	
ITEM No.143	ITEM NO :- 69 Providing and fixing on walls/ceiling/floor 20 mm dia. CPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete SSR 42.56	BD.V 5 page551 and as directed by Engineer in charge	

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Sr.No.	ITEM	Specification	Additional Specification
ITEM No.144	ITEM NO :-70 Providing and fixing on walls/ ceiling/ floor 25 mm dia. CPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete. SSR 42.57	BD.V 5 page551 and as directed by Engineer in charge	
ITEM No.145	ITEM NO :-71 Providing and fixing on walls/ ceiling/ floor 32 mm dia. CPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete. SSR 42.58	BD.V 5 page551 and as directed by Engineer in charge	
ITEM No.146	ITEM NO :-72 Providing and fixing on walls /ceiling/ floor 40 mm dia. CPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. Including removing existing pipe line if necessary and conveying and stacking the same in PWD chowky or as directed etc. complete. SSR 42.59	BD.V 5 page551 and as directed by Engineer in charge	
ITEM No.147	ITEM NO :-73 Providing and fixing on walls/ ceiling/ floor 50 mm dia. CPVC pipe with necessary fittings, remaking good the demolished portion etc. complete. SSR 42.60	BD.V 5 page551 and as directed by Engineer in charge	
	FIRE		
ITEM No.148	ITEM NO:-74 Supplying & erecting Carbon Dioxide (CO2) fire extinguisher of 4.5 kg. capacity cartridge type conform to IS 2878 /15683 complete erected with necessary clamp made from 50 x 6 mm. M. S. flat with nut & bolts routed in wall complete. CSR 13-15-1	As directed by Engineer-in-charge	
ITEM No.149	Solid Core Flush door Single leaf Providing and fixing factory made solid core flush door in single leaf 35 mm thick, decorative types, of exterior grade, as per detailed drawings, conforming to I.S.:2202 - 1962 (Revised) with approved face veneers on both faces with/without glazing and venetians in the positions shown on the drawings or as directed, all necessary beads, moulding and lipping, holdfasts, mat finish stainless steel fixtures fastenings , finishing with french-polish/ waxing complete. (without door frame).(Sample to be got approved from Ex.Engineer before use) Commercial Hard Wood shutter SSR Item No. : 51.60	As directed by Engineer-in-charge	
ITEM No.150	Solid Core Flush door Double leaf Providing and fixing factory made solid core flush door shutters in double leaves 35mm thick,decorative type of exterior grade, as per detailed drawings, conforming to I.S.: 2202 – 1966 (Revised) including approved face veneers on both sides, without glazing and venetians including mat finish stainless steel fixtures and fastening, stoppers and finishing with french polishing etc. (Excluding door frame)(Sample to be got approved from Ex. Engineer before use) Commercial Hard Wood shutter SSR Item No. : 51.61	As directed by Engineer-in-charge	

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Sr.No.	ITEM	Specification	Additional Specification
ITEM No.151	Providing and fixing in position. (as per I.S.1868 / 1982) Aluminium sliding window of two tracks with rectangular pipe having overall dimension 63.50 x 38.10 x 1.02 mm at weight 0.547 Kilogram/One Running Metre. and window frame bottom track section 61.85 x 31.75 x 1.20 mm at weight 0.695 Kilogram/One Running Metre. Top and side track section 61.85 x 31.75 x 1.30 mm at weight 0.659 Kilogram/One Running Metre. The shutter should be of bearing bottom 40 x 18 x 1.25 mm at weight 0.417 Kilogram/One Running Metre. Inter locking section 40 x 18 x 1.10 mm at weight 0.469 Kilogram/One Running Metre. And handle section 40 x 18 x 1.25 mm at weight 0.417 Kilogram/One Running Metre. and top section 40 x 18 x 1.25 mm at weight 0.417 Kilogram/Running metre. As per detailed drawings and as directed by Engineer in charge with all necessary Aluminium sections fixtures and fastenings such as roller bearing in nylon casting and self locking catch fitted in vertical section of shutter including 5 mm thick plain glass with all required screws and nuts etc, complete. With colour Anodising with box. SSR Item No. : 39.37	As directed by Engineer-in-charge	
ITEM No.152	Providing and fixing in position powder coated aluminium louvered windows / ventilator of various sizes with powder coating as per detailed drawing and specifications including aluminium frames 80 x 38 mm x 1.22 mm box type, 5 mm thick sheet glass louvers, of approved quality etc. complete. SSR Item No. : 39.68	As directed by Engineer-in-charge	
ITEM No.153	Solid Core Flush door Single leaf Providing and fixing factory made solid core flush door in single leaf 35 mm thick, decorative types, of exterior grade, as per detailed drawings, conforming to I.S.:2202 - 1962 (Revised) with approved face veneers on both faces with/without glazing and venetians in the positions shown on the drawings or as directed, all necessary beads, moulding and lipping, holdfasts, mat finish stainless steel fixtures fastenings, finishing with french-polish/ waxing complete. (without door frame).(Sample to be got approved from Ex.Engineer before use) Commercial Hard Wood shutter SSR Item No : 51.60	As directed by Engineer-in-charge	
ITEM No.154	Providing and fixing in position anodised (as per IS 1868/1982) Aluminium fixed staggered (Z Type) Ventilator with aluminium rectangular pipe 63 mm x 38.10 mm x 1.22 mm at weight 0.650 Kilogram/One Running Metre, Aluminium angle of size 15 mm x 15 mm x 1 mm,aluminium channel of 9 mm sizes, S.S.mosquito net of 304 Grade,4 mm thick float glass per detailed drawing and as directed by Engineer in charge etc.complete. SSR Item No : 39.78	As directed by Engineer-in-charge	
ITEM No.155	ITEM NO . 27 Providing and applying melamine polish of required finish to the wood work by spray machine including knotting and preparing the even surface by scraping, applying French polish, scaffolding if required etc. complete. Note:The work to be executed on prior approval of Superintending Engineer will be necessary SSR 34.09/224	As directed by Engineer-in-charge	
ITEM No.156	ITEM NO. 28 Providing and fixing solid core flush door shutter in single leaf 32 mm thick decorative type of exterior grade as per detailed drawings approved face veneers 3 mm thick on both faces or as directed, all necessary beads, mouldings and lipping, wrought iron hold fasts, chromium plated fixtures and fastenings, with brass mortise lock, chromium plated handles on both sides, and finishing with French Polish etc. complete. SSR 39.09 / 246	BD-T-34 PageOne Number 499	
ITEM No.157	ITEM NO .29 Providing and fixing fiber glass reinforced polyster door shutter 35 mm thick as per IS 14856 (2000) (Reaffirmed 2006) without ventilator including chromium plated fixtures and fastening with chromium plated handles on both sides, etc complete. SSR 39.59/258	As directed by Engineer-in-charge	

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Sr.No.	ITEM	Specification	Additional Specification
ITEM No.158	ITEM NO. 30 Providing and fixing in position (as per 1868 / 1982) Alluminium sliding window of three tracks with rectangular pipe 95 x 38.10 x 0.90 mm at weight 0.637 kg/Rmt. with window frame bottom track section 92 x 31.75 x 1.30 mm at weight 1.070 kg/Rmt.. Top and side track section 92 x 31.75 x 1.30 mm at weight 0.933 kg/Rmt. The shutter should be of bearing bottom 40 x 18 x 1.25 mm at weight 0.417 kg/Rmt. Inter locking section 40 x 18 x 1.10 mm at weight 0.469 kg/Rmt. and handle and top section 40 x 18 x 1.25 mm at weight 0.417 kg/Rmt. As per detailed drawings and as directed by Engineerincharge with all necessary Aluminium sections fixtures and fastenings such as roller bearing in nylon casting and self locking catch fitted in vertical section of shutter including 5 mm thick plain glass and aluminium mosquito net shutter with stainless steel jail with all required screws and nuts etc, complete. With colour Anodising with box SSR 39.41 / 253	As directed by Engineer-in-charge	
ITEM No.159	ITEM NO .31 Providing and fixing in position aluminium partly openable and partly fixed window of any size as per detailed drawing and as directed by Engineerincharge with all necessary alluminium sections including necessary fixtures and fastening with 5 mm thick float glass etc. complete. b) With powder coating Note While arriving at the rate of item of item weight at 6.90 Kilogram/Square Metre is considered. SSR 39.55/257	As directed by Engineer-in-charge	
ITEM No.160	ITEM NO .32 Providing and fixing in position b) Powder Coated aluminium fixed window fully glazed of any size as per detailed drawing and as directed by Engineerincharge with all necessary alluminium sections including necessary fixtures and fastening such as 5 mm thick clear float glass etc. complete. SSR 39.53B/257	As directed by Engineer-in-charge	
ITEM No.161	Providing and fixing in position Gypsum board false ceiling with 12.5 mm thick Gypsum boards, screwed/fixd to the under structure of suspended G.I. Grid constructed and suspended from the main ceiling consisting of ceiling sections of size 25 x 50 mm maximum center to center distance of 600 milimetre perimeter channel and intermediate channels at maximum center to center distance 1200 milimetre galvanized grid should be fixed to reinforced cement concrete slab. The gypsum board should be fixed to galvanized iron grid with necessary screws. The boards should be taped and filled from underside to give smooth, seamless ceiling. The rate should include necessary additional ceiling sections and intermediate channels. Additional intermediate channels should be fixed to strap hangers for additional support to prevent strapping at every 1200 milimetre item to be completed in all respect including necessary sleeves for ducts finishing of joints cut outs, painting including labour, material, lifts etc. all complete. SSR Item No. : 38.51	As directed by Engineer-in-charge	

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Sr.No.	ITEM	Specification	Additional Specification
ITEM No.162	Providing and fixing false ceiling with eco-friendly light weight calcium silicate tiles of Spintone/cosmos surface textured "Aerolite " make or equivalent of size 595 x 595mm having 15 mm thick densified microlook edge and 100% humidity resistance, incombustible as per BS 476 Part IV and thermal conductivity 0.043 w/m° KC and NRC 0.50 placed in true horizontal level suspended grid of size 600x600 mm made from hot dipped GI steel sections on Sillhoutte profile, rotary stitched double webbed white with 6mm reveal profile (white/black), where in main T runner of size 24 mm x 38mm and 0.33 mm thick @ 1200mm center to center and cross T of size 24mm X 28 mm and 0.33 mm thick, 1200 mm long spaced between main tee at 600 mm centre to centre and secondary cross T of Size 24mm X 28 mm x 0.33 thick of length 600 mm to be inter locked at middle of the first cross T in each panel to form grids of 600 mm x 600 mm and resting on periphery wall profile wall section 24 mm x 24mm x 0.40 thickness and laying false ceiling for services like diffusers grills including cutting, making opening for light fitting, fixtures, smoke detectors etc. wherever required, main tee runner to be suspended form ceiling using G.I. soffit cleats of size 25 x 35 x 1.6 mm of required length fixed to the ceiling with 12.5mm dia and 50 mm long dash fastener, 4 mm dia G.I adjustable rods with good quality G.I level adjustment clips of 85 X 30 X 0.8mm spaced at 1200 mm center to center along main tee all complete at all heights as per specifications, drawings and as per direction of Engineer - in - Charge.	As directed by Engineer-in-charge	
	SOR-23/R3-CS-WW-22		
ITEM No.163	PRIVIDING AND FIXING MODULAR ACOUCTICAL WOODEN WALL PANELLING: Of nominal width 100 / 150mm, having 80mm wide panel with 20mm reveal having a thickness of 15mm thickness and length 2400 mm. The panel shall be made of a Moisture resistant fibre board substrate having a minimum density of 595 Kg/m3 with a laminated facing as per the approved shade (Portland Maple, Sea Beech, Siam Wood & Mystique Walnut) and a melamine balancing layer on the reverse side. The panel shall have 0.7mm PVC edge banding along the length side with a similar finish as that of the face. The back of the panel shall have a black acoustic felt to cover the reveal of 20mm to attain an NRC of 0.4 for 150mm. / 0.5 for 100mm. module (Average value of Absorption Co-efficient readings taken at 250 Hz, 500 Hz, 1000 Hz and 2000 Hz) as per ASTM C423. The panels shall provide a Humidity Resistance (RH) of 70% with camber limit less than 1mm/1000mm and bow less than 1mm/300mm. The back of the panels shall be profile-grooved to receive 3600mm special main beam carrier with integrated factory fitted clips for installation. SUSPENSION: The panels shall be upward mounted on 24 mm wide T - section flanges having rotary stitching along the length of the beam with a web height of 43mm. The Main Beam shall have integrated (factory fitted) locking clips installed at 100 / 150mm centre to centre distance. The deflection loading of the main beam tested as per ASTM C635 (Deflection limit less than L/360) shall be at least 21.4kg/m. The end details of the main beam shall be made of pre hardened steel and fixed to the ends with 3 point fixing. All main beam to main beam connection shall have a pull out strength of more than 100kg. The T Sections shall be made of hot dipped galvanized steel of 100 gsm as per IS 277 (2003) and pre-painted steel with baked polyester paint with OT bending capability. Installation should be carried out as per Manufacturer recommended procedure. The grid shall be installed with suspension system of Manufacturer make.	As directed by Engineer-in-charge	
	SSR Item No. : 53.41		
ITEM No.164	Removing existing soundproofing panels along with ensulation materials to clean the surface of walls, stacking them at the designated place and dispose the same as directed.	As directed by Engineer-in-charge	
	ITEM No.164		

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Sr.No.	ITEM	Specification	Additional Specification
ITEM No.165	Providing & Fixing False Ceiling comprising of following material including fixing in galvanized steel sections with white color coated cap comprised of main tee 34 mm x 24 mm (heavy duty as per ASTM C - 635 standard tested) with pre-punched cross tee slots (at every 100 mm c/c) to be placed at 1200 mm c/c, suspended with 4 mm GI (TATA MAKE) straightened wire at every 1.2 mtr, other end of the wire provided with GI J hook & nut. All the false ceiling panels around the perimeter of the false ceiling & around the RCC columns shall rest on the perimeter G.I. molding of size 19 mm x 19 mm which is fixed to the walls with help of rawal plug & GI screw at the same level as false ceiling. The cross tee of 1200 mm length (26 mm x 24 mm wide Heavy duty) shall be locked in main tee at every 600 mm c/c. to form grid of 600 x 1200 mm. Further 600 mm long tee need to be locked in to 1200 mm tee to make the final grid of 600 mm X 600 mm, including making provision for cutouts and / or trap door for electrical and mechanical systems, etc complete as directed by Engineer In charge.	As directed by Engineer-in-charge	
	With Armstrong or equivalent Orcal Lay in metal ceiling System consisting of 600x600mm Lay in tiles of pre coated galvanised steel in 0.5/0.4 mm thickness in white colour with standard perforation of 2.5mm dia & open area of 16%. The back of the tile should have black acoustical fleece with NRC of 0.70 & CAC 36 with life time warrantee against sag in module size 595 mm X 595 mm at required height above FFL	As directed by Engineer-in-charge	
	MCGM USOR Bldg. 31.01.23 Page No. 121 Item No. : R3-CS-WW-21-a		
ITEM No.166	ITEM NO.33 Providing and fixing in position Gypsum board false ceiling with 12.5 mm thick Gypsum boards, screwed/fixd to the under structure of suspended G.I. Grid constructed and suspended from the main ceiling consisting of ceiling sections of size 25 x 50 mm maximum center to center distance of 600 milimetre perimeter channel and intermediate channels at maximum center to center distance 1200 milimetre galvanized grid should be fixed to reinforced cement concrete slab. The gypsum board should be fixed to galvanized iron grid with necessary screws. The boards should be taped and filled from underside to give smooth, seamless ceiling. The rate should include necessary additional ceiling sections and intermediate channels. Additional intermediate channels should be fixed to strap hangers for additional support to prevent strapping at every 1200 milimetre item to be completed in all respect including necessary sleeves for ducts finishing of joints cut outs, painting including labour, material, lifts etc. all complete. SSR 38.51/243	As directed by Engineer-in-charge	
ITEM No.167	ITEM NO. 34 Providing water proofing in W.C. and bath including brick bat coba in all position including providing and laying 12mm bed ding in cement mortar 1:3 on vergin concrete slab with waterproofing compound @1 Kilogram/ per bag of cement laying brick bat coba of required thickness in cm 1:5 with waterproofing compound 1Kilogram/ bag of cement grouting and finishing the to play er with 20mm thick brick bed ding in cm mortar 1:3 with waterproofing compound 1Kilogram/ per bag of cement nd testing the treated portion for 48hours by pond test and covering ten years'guarantee on requisite stamp paper including curing etc. complete. SSR 31.26 / 208	As directed by Engineer-in-charge	
ITEM No.168	ITEM NO. 35 Providing and applying water proofing treatment using acrylic polymer modified cement based water proofing coating with fibre glass mesh mixing at the rate of powder to liquid (2:1) by weight covering 9 to 10 sqm /kg with two coat using approved chemicals for masonry and concrete surface by brush covering 7 years guarantee on Stamp Papers etc. complete. SSR 31.09/206	As directed by Engineer-in-charge	

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Sr.No.	ITEM	Specification	Additional Specification
ITEM No.169	ITEM NO .36 Providing and fabricating structural steel work in rolled sections like joists, channels, angles, tees etc. as per detailed design and drawings or as directed including cutting, fabricating, hoisting, erecting, fixing in position making riveted / bolted /welded connections without connecting plates, braces etc. and including one coat of anticorrosive paint and over it two coats of oil painting of approved quality and shade etc. complete. SSR 23.01/173	Bd.C.2 Page One Number 275	
ITEM No.169A	ITEM NO :- 38 Supply and installation of cubicles of width and depth as per Athena Lite- SS Series Cubicles- Std Sizes (W x D x H): 900 mm x 1550 mm x 2105 mm, (Height is including 100 mm gap from bottom, Door Width- 600 mm specifications/ site drawings). Cubicle height to be 2105 mm. Made from solid grade compact high pressure laminate as per IS:2046 and EN-438 manufactured under high specific pressure > 5 MPa and temperature >120°C, All doors will be of single colour and made of 12 mm thick Merino HPL compact panel. The doors will have chamfered edges. Each door will be supported by 3 stainless steel made hinges affixed to the pilasters. Size of panels to be as per drawing. HARDWARE & ACCESSORIES are H shaped (Top) head frame structure made of extruded Aluminium grade 6063 T5-50 micron epoxy powder coated for surface protection, Size to be 125x70x5T. Corner joinery section, Size to be 40x16.5x1.8T. U-Channel Wall joinery section,Size to be 22x16x1.6T. Door stopper section, Size to be 21x12.5x1.6T. Spring loaded Butt Hinges made from Stainless steel grade 304. Surface finish to be matt type. Covers to be lacor coated.etc complete. SSR 51.162 / 395	As directed by Engineer-in-charge	
ITEM No.170	ITEM NO :- 37 Providing and fixing on site VENEER FINISH WALL PANELING made by using approved quality seasoned T.W. framing of 38 x 25 mm at approximately 600 x 450 mm center to center or as per site conditions and covered by 12 mm thick marine ply generally conforming to I.S.303 /I.S.710-1980 finished with 3 mm thick group match veneer of approved quality with groove pattern including all necessary end mouldings, moulding pattern, and melamine polish. Antitermite treatment to plywood and woodwork etc.including all leads & lifts complete as per Architects detailed drg. & design and as instructed by The Engineer In Charge (Basic Veneer Rate Rs.75/-per sft) MCGM/ R3-CS-WW-41	As directed by Engineer-in-charge	
ITEM No.171	ITEM NO :- 38 Providing and fixing bevelled edge mirror of superior glass (of approved quality) 6mm glass with 12mm bevelled including edge Polish with PVC backing complete with fixed to wooden cleats with C.P. brass screws and washers complete. MR.	As directed by Engineer-in-charge	
ITEM No.172	ITEM NO :- 39 Providing & Fixing Wooden shutters for Storage/Counter made of 18 mm thk plywood with all external surfaces finished with approved laminate of 1.0 mm thk & internal surfaces finished with white/offwhite laminate 0.8 mm thk. All wooden surfaces finished with melamine polish. etc complete As per drawing. Spec. As directed by Engineer-In-Charge MR	As directed by Engineer-in-charge	
ITEM No.173	ITEM NO :- 40 Providing & Fixing Dressing Table of Approved size .The Dressing table unit is made up 18 mm thk plywood with all external surfaces finished with approved laminate of 1.0 mm thk & internal surfaces finished with white/offwhite laminate 0.8 mm thk. All wooden surfaces finished with melamine polish. The unit has drawer and shelf. including Light Provision and complete as per specification. MR	As directed by Engineer-in-charge	

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Sr.No.	ITEM	Specification	Additional Specification
ITEM No.174	ITEM NO :- 41 Providing and applying pearl/ luster finish paint of approved colour and shade to the existing plaster surface including scaffolding, preparing the surface, applying the acrylic wall putti etc. complete. SSR 35.23 / 225	As directed by Engineer-in-charge	
ITEM No.175	ITEM NO :- 42 Providing and fixing 20 mm thick superior veneer board pelmet box 150 to 200 mm wide to doors or window frames including 20mm dia. Aluminium curtain rod with sockets and finishing with french polishing (without top)etc. complete. 37.14/231	Bd.P.6 Page One Number 414 and Pre-approval of Superintending Engineer	
ITEM No.176	ITEM NO :- 43 center table Providing and supplying canter table of required size with top made of 8mm thick clear toughened glass with bevelled edge from bottom edge of the glass border and vertical edge with polish etc. complete. Under structure made of 25mm thick Marine ply (IS 710 : 2010) with all exposed edge finished with 2mm thick machine pressed PVC edge banding in matching colour. (Rehau Make/or Equivalent) for better impact resistance. Nylon button stopper to hold glass top in position, Nylon bushers etc. complete. MCGM R3-CS-FUR-10-a	As directed by Engineer-in-charge	
ITEM No.177	ITEM NO :- 44 CABIN SOFA Providing and supplying wooden sofa made with minimum 19mm.Marine ply (IS 710 : 2010) structure and internal frame work made of C.P. teak / Maranti wood seat made with minimum 19mm. Marine ply (IS 710 : 2010) and cushion made with foam of 150mm thick - 32 density on seat covered with 14mm thick - 18 density foam. Back made with wooden frame of minimum 50mm X40mm with 4 mm. ply and covered with foam of 100mm thick -32 densities covered with 14mm thick - 18 density foam for back extra support to the shape all foam of seat and back covered with tapestry approved by E-I-Charge. (Basic rate Rs. 450/- metre.) Handle made with wooden frame with box of 12mm. ply covered with 14mm thick -18 density foam with tapestry etc. complete. MCGM R3-CS-FUR-17-a / 1 seater	As directed by Engineer-in-charge	
ITEM No.178	ITEM NO .45 Sofa Set 3+1+1 Providing & fixing Sofa Set 3+1+1 Brown and Cream leather DIMENSION Length: 182.5 (cms) Breadth (cms): 100 (cms)Height (cms): 100 (cms) Weight (Kilograms): 66 (Kilogram) Seating Capacity: Five Seat SSR 51.53/366	As directed by Engineer-in-charge	
ITEM No.179	ITEM NO .46 Providing and Fixing Rollar Blinds AMI Make or approved make & shade of 38mm round Aluminium channel with Blackout fabric & telting with chain (Ball) system with all necessary fixtures and fitting etc. complete. (Sample to be final by Engineer In-charge prior execution of work) SSR 51.19/355	As directed by Engineer-in-charge	
ITEM No.180	ITEM NO. 47 Providing & Arrangemnt of High Back, Synchronized Mechanism with Multiple Locking, Adjustable Armrest, Gaslift for Seat height adjustment, Standard 5-prong P/Nylon Base with Leatherite Upholstery SSR 51.40/359	As directed by Engineer-in-charge	

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Sr.No.	ITEM	Specification	Additional Specification
ITEM No.181	ITEM NO. 48 providing and fixing laser cut 3mm ss later of height 24 inches with stud weld and back side fixing in wall with chemical grouting all later powder coated all other necessary hardware fitting. MR	As directed by Engineer-in-charge	
ITEM No.182	ITEM NO .49 Stainless steel nameplate : Providing and Fixing the 150mmx50mm Stainless steel nameplate by requirement of Department. PUNE/PWD/187597 64-14	As directed by Engineer-in-charge	
ITEM No.182 A	ITEM NO :-51 Providing and fixing Glass Partition of 12 mm toughen glass and sliding fitting with c bracket and required hardware handle and stopper with installation including operating hardware, SS patch fittings, fabricated long length satin finish SS 304 handles, patchlock , floor springs etc., complete as directed by the architect MR	As directed by Engineer-in-charge	
ITEM No.183	ITEM NO.50 Refixing C.I. and UPVC vent , soil, waste and rain water pipe of any size including cleaning and making good masonry of walls cornices etc. before fixing including fitting such as W.I. clamps, accessories of approved make with scaffolding etc. complete. MCGM/R3-CS-RM-76	As directed by Engineer-in-charge	
ITEM No.184	ITEM NO:-51 Providing LED BULB 5W or7W , 230v, 50 Hz having colour temp up to 6500k complete erected with mains and required switchgears with continuous earth wire cpmplete as per specification. MR	As directed by Engineer-in-charge	
ITEM No.185	ITEM NO:-52 Supplying and erecting Recess mounted 10-15 W LED wall washers/Spot Light/updown Light, tilted outwards /swivels/flush to wall to offer best illumination on the wall with any colour with driver complete. (Including Compatible Driver) MR	As directed by Engineer-in-charge	
ITEM No.186	ITEM NO:-53 Supplying and erecting LED square / circular 15W-18W automatic motion sensor light downlighter/pannel concealed as per specification provided by the engineer in charge.complete MR	As directed by Engineer-in-charge	
ITEM No.187	ITEM NO:-54 Supplying and erecting Recess mounted 30W LED wall washers/Spot Light/updown Light, tilted outwards /swivels/flush to wall to offer best illumination on the wall with any colour with driver complete. (Including Compatible Driver) MR	As directed by Engineer-in-charge	
ITEM No.188	ITEM NO:- 55 Supply installation testing and commissioning of 4MP, Full HD, 1/2.8 type CMOS image sensor, Vari Focal : 9.0 mm to 22 mm, H.265 / H.264 & MJPEG triple-stream encoding, Max. IR LEDs length 30 m , IP66 rated, 25/30fps@1080P (1920 ×1080), Support ICR for day time and night time operation, Zoom ratio :2.4x Optical (Motorized zoom/ Motorized focus), Bullet Camera. MR.	As directed by Engineer-in-charge	
ITEM No.189	Providing and fixing the Chemical Anchor Fasteners as specified below of Hilti Make or equivalent confirming to IS 1367 (Part 3) at required locations and level including drilling the hole, cleaning with blow pump and anchoring the bolt with chemical as per manufacturers specifications etc. complete as directed by Engineer In Charge.	As directed by Engineer-in-charge	
	M12 x 110 foil capsule (HVU) & M12 x 160 Rod		
	SOR/R3-CS-SS-07-b/Pg 119		

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Sr.No.	ITEM	Specification	Additional Specification
ITEM No.190	M16 x 125 foil capsule (HVU) & M16 x 190 Rod	As directed by Engineer-in-charge	
	SOR/R3-CS-SS-07-c/Pg 119		
ITEM No.191	M20 x 170 foil capsule (HVU) & M20 x 240 Rod	As directed by Engineer-in-charge	
	SOR/R3-CS-SS-07-d/Pg 119		
ITEM No.192	Supply, fixing and installation of 4mm thick Aluminium Composite Panel (ACP) of approved colour for external cladding in combination of solid and metallic colours, including all necessary Framework, support and complete weather sealing as per architectural drawing. The Aluminium Composite Panel (ACP) should be made out of thermoplastic core of low-density polyethylene LDPE (100% virgin mix), sandwiched between two aluminium sheets of ALLOY GRADE- 5000 series, each not less than 0.50 mm thick, total thickness of aluminium composite panels not to be less than 4 mm, the exposed surface thereof shall have Stove lacquered finishing coat not less than (26 + - 2) micron (containing minimum 70% kynar 500 based PVDF) of colour and shade as per architectural design. The inside surface (facing the building exterior surface)shall have polyester based powder coating not less than 25 Micron with protective peel-off foil on the exterior face (peel off film will in no case leave any adhesive mark over the composite panel surface after it is peeled off). The supporting framework shall be made out of 50 mm X25mm X 3mm thick Aluminium section to be spaced horizontally and vertically for fixing of panel of size 900 mm X 1200 mm and fixed to the building structure as per design through 50mm X50mm X5 mm MS angle clamps prefixed to masonry or slab, columns with Hilti make anchor fastener screws. The fixing of panel to be done with the help of VHB tapes and screws and all the sealing of joints to be done with weather sealant Silicon as directed by Engineer-in-charge. (Prior permission of S.E. is necessary before inclusion of this item in estimate)	As directed by Engineer-in-charge	
	SSR 22-23 / Item No. 51.235 / Pg 416		
ITEM No.193	Design, supply, fabrication & erection of approved structural glazing using specially designed Vertical Mullion & Horizontal Transoms of Required size & as per architect's approved Grid work with aluminium rectangular sections to be fixed in masonry at interval of each floor on concrete slab with 80 mm x 100 mm x 5mm thick galvanized M & Langle fixed on wall side with raw bolt size of 10 mm x 90 mm with necessary bolts & washers / nuts for the plumb the linelevels. the glass panel's shall be fixed on a specially designed architectural sub- frame using Dow Corning 995 strural sealant & GE Silicon (SSG - 4000) sub frame would be fixed on main frame grid in amanner that no aluminium frame is visible from outside & groovesbetween the glass panel shall be filled with weather sealant of Dow corning 789 / GE Sil proof to made it air tight, water proof & dustfree thus giving it a flush look outside. Glass will be of 6 mm thick Glaverbel reflective type with heat strengh ened toughened.	As directed by Engineer-in-charge	
	SOR 2023 / R3-CS-AW-20		

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Sr.No.	ITEM	Specification	Additional Specification
ITEM No.194	Designing, providing & Fixing (at all levels) in position factory made precast Glass fiber reinforced polymer (GFRP) and structural reinforcing the same as required as per approved manufacture's specification and as per approved drawings. The thickness of GFRP panel should not be less than 5mm with minimum 5 m thick GRP pads acting as inbuilt stiffeners, Fire resistant Resin of GP grade shall be used of approved make. Colour and texture should be approved by Engineer in charge. Fixing of Including making frame over the Primary main structure by using suitable MS sections. GFRP panel on primary structure shall be done by dry cladding method with the help of SS screw fixtures, MS angle cleats, fissures plug and Dowel pin etc. in proper alignment, line and level as per the approved drawing, Finishing with GFRP powder filling the joints with paintable silicon sealant neatly between GFRP panel and primary structure to provide one piece look including moulding and cornice at junction of column and beams as per approved drawing, including necessary MS fabrication work to support GFRP structure, necessary scaffolding at all levels and staging etc. Including painting with one coat of primer and minimum two coats of paint in Duco finished with one protective coat of lacker, complete as per manufactures specification. The rate shall include all necessary scaffolding, anchoring/bolting and necessary civil/ fabrication work as per Standard specifications as per approved design and as directed by Engineer-in-charge. GFRP decorative emblem with details shall be as per drawing and carvings as shown in 3 dimension up to a thickness of 150 mm with scroll designs, floral designs, dentals, flutings etc., Item to include checking all surfaces for proper line and level etc. complete. Item includes preparing up to 2 samples for the Architects approval. Item to include making of the clay model and mould for the decorative cornice and supply of the decorative cornice as per approved sample executed in fiber glass material.	As directed by Engineer-in-charge	
	RA for GFRP		
ITEM No.195	Providing water proof bedding for flooring of Bath and WC 25 mm thick in C.M. 1:3 including using approved water proofing compound in specified proportion as per manufacturers specifications for per bag of cement including leveling, curing and covering 10 years guarantee on court fee stamp paper of Rs.500/- including ponding test etc.complete. As directed by Engineer in charge.	As directed by Engineer-in-charge	
	SSR Item No. : 31.05		
ITEM No.196	Providing, fabricating & fixing in position S.S. 304 grade pipe railing for staircase consisting of 18 gauge 50 mm dia. S.S.pipe as top rail,18 gauge 40 mm dia S.S. pipe as verticals, 18 gauge 25 mm dia as secondary rails, including fixing the verticals to the staircase pardi by means of base plate with socket & anchor fasteners,grinding the welded portion smooth,buffing, protecting the railing members by means of wrappers during construction etc. complete as directed by the Engineer in charge	As directed by Engineer-in-charge	
	SOR 2023 / R3-CS-SS-31/ Pg. No. 125		
ITEM No.197	Providing and fabricating structural steel work in rolled sections like joists, channels, angles, tees etc. as per detailed design and drawings or as directed including cutting, fabricating, hoisting, erecting, fixing in position making riveted / bolted /welded connections without connecting plates, braces etc. and including one coat of anticorrosive paint and over it two coats of oil painting of approved quality and shade etc. complete.	Bd.C.2 Page One Number 275	
	SSR Item No. : 23.01		
ITEM No.198	Providing & Fixing 15 mm thick solid white acrylic laser cut out Logo etc complete .(as per client / Architectural approval)		
	SOR-23/R3-CS-RM-143/242		

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Sr.No.	ITEM	Specification	Additional Specification
ITEM No.199	Directional signage Design, supply, fabrication and fixing acrylic multilingual Braille (raised dots) directional signboards of size 6" x 9" designed as per accessibility standards and having 4mm thick acrylic base plate with Upper Case San Serif words made of white acrylic non glare cut out letters of height 15mm raised not less than 0.8mm above base plate and the equivalent word written in Hindi with Devnagri non glare acrylic letters of height 15mm raised not less than 0.8mm above base plate and having a non glare acrylic cut arrow pointing in the required direction. Each signboard to be fixed as per manufacturers specifications on the wall at the approved location and at a height of 1200mm from FFL and as per the directions by the engineer in charge.	As directed by Engineer-in-charge	
	SSR Item No. : 51.67		
ITEM No.200	Providing and casting insitu or precast tapering R.C.C. M-20 Barrier type Kerb without gutter (as per IRC 861983) embedded 125 mm below ground level over M-10 PCC finished neatly with C.M. 1:2, setting the same in C.M. 1:2, including the required excavation in any strata and removing the excavated stuff any where in city and redoing the surface as specified and directed by Engineering In-charge. Using Concrete Batching and Mixing Plant.	MORTH 408	
	SSR Item No. : 7.01		
ITEM No.201	Disposal of building rubbish / malba / similar unserviceable, dismantled or waste materials by mechanical means including loading, transporting, unloading to approved municipal dumping ground or as approved by Engineer-in-charge, beyond 50 m initial lead, for all loads including all lifts involved. For 25 Km Lead	As directed by Engineer-in-charge	
	SSR 22-23 Page No. 560 Item : Statement C		
ITEM No.202	Stool for Lab and Class-IV Providing and fixing 4 legged Lab stool, Legs made of 16 Guage 45 MM Outer dimension MS Pipe, Duly painted, With a 304 Grade Stainless steel 12 inch wide seat with a 1 inch collar, Height adjustment via a screw. as per design and drawing and instructions of Engineer in charge.	As directed by Engineer-in-charge	
	SSR 22-23 / Item No. 51.51		
ITEM No.203	Providing and supplying center pivot, revolving, Mid back chair Depth-45cm, width-50cm, height- 105cm to 115cm & seat height- 45cm to 55cm. (+/- 2cm) with five legged metal / moulded nylon basewith push back arrangement. Chairs shall have high density moulded,360 revolving on suitable base, gas lift , heavy duty twin wheel castors to take min 80 kg/castor with two -pneumatic height adjustment one piece moulded type polypropylene armrest etc. complete. The chair shall be provided with approved tapestry upto Rs 300/m with necessary beading wherever required. All metal work shall be Epoxy Polyester Powder Coated and as directed by Architect in charge. The over all appearance of the product shall be as per photograph. All metal work shall be Epoxy Polyester Powder Coated and as directed by Architect in charge.	As directed by Engineer-in-charge	
	SOR/R3-CS-FUR-30/Pg 260		
ITEM No.204	Providing and Supplying Reception table of overall size 1650 X 750X 750 mm made out of 19 mm thick Marine ply (IS 710 : 2010) top Sides and apron having Top and bottom horizontal patta. The table shall be externally and internally finished with 4mm thick group match veneer pattern with grooves including necessary lipping moulding and hardware.5 mm thick toughened glass modesty shall be provided with 50 X 30 mm BTC wood frame etc. complete. Antitermite treatement to marine ply and all wooden accessories on both sides for full faces before the joineries melamine polish on french polish base coat, hardware as per drawings. etc. all complete as per Architects Drawing.	As directed by Engineer-in-charge	
	SOR/R3-CS-FUR-23/Pg 258		

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Sr.No.	ITEM	Specification	Additional Specification
ITEM No.205	Providing table top of required size fixed at a standard table top height of up to 750mm min. (including table top thickness) to Modular partition. Table top shall be made of 25mm thick Marine ply (IS 710 : 2010) , FIRE RETARDENT laminate on all sides / surfaces. All edges of the work surface shall be provided with machine pressed PVC edge banding of 2mm thickness etc. complete. Table top to be principally mounted from the partition frame with suitable MS powder coated brackets which should be integrated into the partition frame etc. complete.	As directed by Engineer-in-charge	
ITEM No.206	900 X 450		
	ITEM No.206		
ITEM No.207	900 X 600		
	R3-CS-FUR-05-b		
ITEM No.208	1050 X 450		
	R3-CS-FUR-05-c		
ITEM No.209	1050 X 600		
	R3-CS-FUR-05-d		
ITEM No.210	1200 X 450		
	R3-CS-FUR-05-e		
ITEM No.211	1200 X 600		
	R3-CS-FUR-05-f		
ITEM No.212	1350 X 600		
	R3-CS-FUR-05-g		
ITEM No.213	1500 X 600		
	R3-CS-FUR-05-h		
ITEM No.214	Providing table top of required size fixed at a standard table top height of upto750mm min (including table top thickness). Table top shall be made of 25mm thick Marine ply (IS 710 : 2010), FIRE RETARDENT laminate on all sides/ surfaces. All edges of the work surface shall be provided with machine pressed PVC edge banding of 2mm thickness etc. complete. Table top to be principally mounted from the partition frame with suitable MS powder coated brackets which should be integrated into the partition frame. Gable End Supports of approved profile and design between tables consisting of 18mm Marine ply (IS 710 : 2010) panels duly edge bound (to be integrated with the partition. Adjustable levellers to be provided to supports.) etc. complete.	As directed by Engineer-in-charge	
	1500 X 600 & side 900 x 600		
	R3-CS-FUR-07-b		
ITEM No.215	Providing and positioning bunk bed made out of approved colour,powder coated, M.S. (IS 513:2008) pipe frame and angle supports.Two end frames shall be made out of 16 guage and 40 mm dia M.S pipes as vertical supports and 16 guage 25 mm dia M.S pipes along with 40 x 40 x 6 mm M.S angle lateral frame to recieve 12mm thk marine grade ply base for 100 mm thk ,100 density coir mattress etc. complete. Edges of the base ply shall be sealed with 6mm thk T.W lipping. Two nos of 25 mm dia 16 guage pipe supports shall be provided to support both the base ply and ladder and with necessary Nylon bushers for pipe ends touching to floor and with approved colour powder coating and complete as per the instructions of the Architect or Engineer in charge. Note: This item shall be made in knock down type of arrangement.	As directed by Engineer-in-charge	
	SOR/R3-CS-FUR-27/pg 259		
ITEM No.216	Stitching of Curtains for windows and doors and fixing the same withapproved fabric and buttons, accessories, etc complete.		
	ITEM No.216		

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Sr.No.	ITEM	Specification	Additional Specification
ITEM No.217	Providing and supplying Modular CUPBOARD made up of required size. Top made of 25mm Marine ply (IS 710 : 2010), having post formed decorative laminate of 0.8mm on top and FIRE RETARDENT laminate on all sides / surfaces etc. complete. Sides, Sides in 25mm thk Marine ply (IS 710 : 2010). Adjustable shelf made in 25mm thk Marine ply (IS 710 : 2010) placed on standard shelf pins etc. complete. Storage Back made of 9mm thick Marine ply (IS 710 : 2010) etc. Sides, Shutters, Bottom, adjustable shelf, finished 2mm thick machine pressed PVC Edge banding of required size etc. Hardware set to include 110 degree opening self- closing box hinges, Counter Sunk screw, S.S.Brush Finished, Handles L' Clips Selves support etc. complete. Multipurpose lock, Levelling Bolt with inserts etc. complete. Aluminium furniture feet – Round tube, diameter 40 mm with 100 mm height with suitable finish to match handles" Shape SS Brush finished handles as indicated in the drawing, suitable locking provision etc. complete.	As directed by Engineer-in-charge	
ITEM No.218	900 x 450 x 1200 - 2 SHELVES		
	ITEM No.218		
ITEM No.219	900 x 450 x 1800 - 4 SHELVES		
	R3-CS-FUR-15-e		
ITEM No.220	Providing Step-On Pedal Dustbin/Waste Bin with lid constructed of 100% virgin, Strong and durable plastic of approved make and colour Capacity 6 ltr/10 Ltr	As directed by Engineer-in-charge	
ITEM No.221	Capacity 6 lit		
	ITEM No.220		
ITEM No.222	Capacity 10 lit		
	ITEM No.220		
ITEM No.223	Providing & fixing of Storage cabinet, made of 18mm thick commercial plywood of approved make on Storage top and facia shall be finished with 4mm thick teak veneer & high gloss PU coat & made of 12mm thick plywood all outer sides & surfaces shall be finished 1mm thick laminate approved make & colour. All other finishes shall be done as per detail drawings and as per instructions of architect / owner. Sides & bottom shall be made of 18mm thick plywood & back side shall be made of 6mm thick plywood, intermediate shelf shall be made of 18mm thick plywood. Self top & bottom surface shall be finished with french polish. All the inside surfaces shall be finished with shall be finished 1mm thick laminate approved make & color/ enamel paint of approved make and color. The work shall be measured base on area of front elevation of each storage unit. The rate to include all materials, labour, transport, taxes, delivered and placed in position at site of work. As per approved hardware.	As directed by Engineer-in-charge	
	SSR Item No. : 51.67		
ITEM No.224	Planting Shrubbery on Soft/Hard surface: Filling Red Hill Earth & Cow Dung Manure in the excavated area mixing in 2:1 proportion, watering, weeding after every watering before planting the shrub, leveling, providing and planting well grown, healthy, bushy shrubs including transport and unloading as per specified variety and sizes, planting at desired location and specified distances, maintaining for 1 month after completion of plantation and replacement of casualties till 1 month.		
	Golden Duranta Bag size (10" x 10") Height Of Plant (30 cm to 45 cm)		
	SSR-23 /2(b)/ Item no 11/ Pg no 22		
ITEM No.224	Golden Duranta Bag size (10" x 10") Height Of Plant (30 cm to 45cm)		
	SSR-23 /2(b)/ Item no 11/ Pg no 22		
ITEM No.225	Fox tail palm Bag size (10" x 12") Height Of Plant (3 to 4 ft..)		
	SSR-23 /11(a)/ Item no 11/ Pg no 37		

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Sr.No.	ITEM	Specification	Additional Specification
ITEM No.226	POTTED PLANTS: Providing and displaying a combination of seasonal flower plants and indoor plants (minimum ht. 30 cm) developed fresh and healthy leaves in plastic pot to the satisfaction of client/ Architect. Scope includes adding good suitable plants with soil, new pots, garden cleaning, pots neatly placed in position, carrying of waste mulch, insert new garden soil with compost mixed, addition of cocopeat to hold moisture, all general garden care service. The period of the contract shall be six months. Plants will be property of owner after contract period. Activities included in the scope of work shall include strumming, laying, sweeping, watering, weeding, applying fertilizers, pesticides, planting trees/plants, cleaning and waste disposal. The required consumables for the service for the contract period 6 months shall include fertilizers, pesticides, seeds, good earth, plants/trees- flower, foliage, herb, shrub, bamboo etc., machinery, pots/container – plastic pots 12 inch dia. size. The service provider will quote cost inclusive of scope and selected consumables. List of approved plants and specification of plants is enclosed as under.	As directed by Engineer-in-charge	
ITEM No.227	Bird of Paradise Potted 3-4ft height		
	RA for Potted Plant		
ITEM No.228	Areca Palm Potted 3-4ft height		
	RA for Potted Plant		
ITEM No.229	Bougainvillea Potted 3-4ft height		
	RA for Potted Plant		
ITEM No.230	Coleus potted 3-4ft height		
	RA for Potted Plant		
ITEM No.231	Catharanthus– Pink and white Flower 3-4ft height		
	RA for Potted Plant		
ITEM No.232	Artificial plants - Providing and fixing vertical garden mat made up of 100% pure PE Material with leaves including fixing the same on façade/walls at approved location with all necessary tools, tackles, Nails, Ties, fixtures and frames as per directions of engineer incharge. (size 600x400x30mm).	As directed by Engineer-in-charge	
	RA for Potted Plants		
ITEM No.233	Providing and supplying center pivot, revolving, Mid back chair Depth-45cm, width-50cm, height- 105cm to 115cm & seat height- 45cm to 55cm. (+/- 2cm) with five legged metal / moulded nylon base with push back arrangement. Chairs shall have high density moulded, 360 revolving on suitable base, gas lift , heavy duty twin wheel castors to take min 80 kg/castor with two - pneumatic height adjustment one piece moulded type polypropylene armrest etc. complete. The chair shall be provided with approved tapestry upto Rs 300/m with necessary beading wherever required. All metal work shall be Epoxy Polyester Powder Coated and as directed by Architect in charge. The over all appearance of the product shall be as per photograph. All metal work shall be Epoxy Polyester Powder Coated and as directed by Architect in charge.	As directed by Engineer-in-charge	
	SOR-23/R3-CS-FUR-30		
ITEM No.234	Supply, Installation, Testing & Commissioning of Adjustable Slotted angle racks for Material storage in dressing rooms , design shall be strictly as per the drawings, made from 20 gauge plates and 14 gauge angles. Rate shall include all necessary accessories, hardware components, transportation, installation, structural components, making good the scratches made during installation etc. as directed by the Engineer In charge. RACK DIMENSIONS - 1200 MM (length) X 400 MM (width) X 2100 MM (height) It will be divided into 4 (four) compartments / loading levels. Each compartment shall have load bearing capacity of each rack 100 Kg	As directed by Engineer-in-charge	
	RA For Slotted Angle racks		
ITEM No.235	Providing and fixing mirror of superior glass (of approved quality) and of required shape and size with plastic moulded frame of approved make and shade with 6 mm thick hard board backing : (Rectangular shape 1500x600 mm)	As directed by Engineer-in-charge	
	Rate for 1500x450 is 2270 i.e, Rate for 1500x600 = $(1500*600)/(1500*450)*2270=3026.67$		
	SOR-23/R3-CS-PS-31		

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Sr.No.	ITEM	Specification	Additional Specification
ITEM No.236	Providing table top of required size fixed at a standard table top height of up to 750mm min. (including table top thickness) to Modular partition. Table top shall be made of 25mm thick Marine ply (IS 710 : 2010) , FIRE RETARDENT laminate on all sides / surfaces. All edges of the work surface shall be provided with machine pressed PVC edge banding of 2mm thickness etc. complete. Table top to be principally mounted from the partition frame with suitable MS powder coated brackets which should be integrated into the partition frame etc. complete. (1200 X 600) SOR-23/R3-CS-FUR-05-f	As directed by Engineer-in-charge	
ITEM No.237	Single Bed @ 2025LX 1000DX 650H Providing and fixing Single Bed of Size 2025Lx1000Dx650H with mattress and pillow. Understructure: - The legs are made of Square tube of size 25 x 25mm made out of MS with a thickness of 1.2 mm. The legs should have corner brackets welded to it at two levels. The corner brackets are made of 2mm thick CRCA having a L shaped structure to join the side panels and headboard to the leg. Three nos. of Horizontal stiffeners are provided at equal intervals. The stiffeners are made of Square tube of size 25 x 25mm made out of MS with a thickness of 1.2mm. The middle Horizontal Stiffener has a leg attached to it to transfer the load to the ground and add to the strength and stability of the complete structure. This leg is also made of Square tube of size 25 x 25mm made out of MS with a thickness of 1.2mm. All Metal components to undergo 7 tank treatment process and should be powder coated to the thickness of minimum 50 Microns DFT. Side Panel: - The side panels are made up of 18mm thick Prelam Particle Board with both side decorative laminate. All exposed edges are sealed with 2mm thick PVC edge Banding. The overall width of the side panel is 150mm. The side panels have 18mm thick prelam particle board Baton running for required length to add rigidity to the structure. Head Board :- The head board is made up of 18mm thick Prelam Particle Board with both side decorative laminate. All exposed edges are sealed with 2mm thick PVC edge Banding. The head board size to be considered as 1000 x 650mm. Foot Board :- The foot board is made up of 18mm thick Prelam Particle Board with both side decorative laminate. All exposed edges are sealed with 2mm thick PVC edge Banding. The head board size to be considered as 1000 x 450mm. Bed Base: - The Bed Base is made up of 12mm thick Prelam Particle Board with both side White laminate. SSR Item No : 51.55	As directed by Engineer-in-charge	
ITEM No.238	Providing & Fixing Dressing Table of size 600LX 900DX 750H. The Dressing table unit is made up of 18mm thick Prelam Particle Board with both side decorative laminate. All exposed edges are sealed with 2mm thick PVC edge Banding. The unit has one drawer and one shelf. The dressing table has a mirror of 4mm thick pasted on 18mm thick prelam particle board attached to the base unit. The mirror size considered is 900 x600 htx 4(t). The mirror has been pasted using high quality 3M sticker Mirror to have fframe metal /preilaminated board . Rate for 400x1800 is 17352 i.e, Rate for 600x(750+600) = (600*1350)/(400*1800)*17352=19521 SSR Item No : 51.56	As directed by Engineer-in-charge	
ITEM No.239	Providing and supplying Modular CUPBOARD made up of required size. Top made of 25mm Marine ply (IS 710 : 2010), having post formed decorative laminate of 0.8mm on top and FIRE RETARDENT laminate on all sides / surfaces etc. complete. Sides, Sides in 25mm thk Marine ply (IS 710 : 2010). Adjustable shelf made in 25mm thk Marine ply (IS 710 : 2010) placed on standard shelf pins etc. complete. Storage Back made of 9mm thick Marine ply (IS 710 : 2010) etc. Sides, Shutters, Bottom, adjustable shelf, finished 2mm thick machine pressed PVC Edge banding of required size etc. Hardware set to include 110 degree opening self- closing box hinges, Counter Sunk screw, S.S.Brush Finished, Handles L' Clips Selves support etc. complete. Multipurpose lock, Levelling Bolt with inserts etc. complete. Aluminium furniture feet – Round tube, diameter 40 mm with 100 mm height with suitable finish to match handles" Shape SS Brush finished handles as indicated in the drawing, suitable locking provision etc. complete	As directed by Engineer-in-charge	

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Sr.No.	ITEM	Specification	Additional Specification
	900 x 450 x 1200 - 2 SHELVES		
	SOR-23/R3-CS-FUR-15-a		
ITEM No.240	Providing and supplying corner table of required size with top made of 8mm thick bevelled glass and under structure made of 18mm thick Marine ply (IS 710 : 2010) with all exposed edge are finished with 2mm thick machine pressed PVC edge banding in matching colour. (Rehau Make/or Equivalent) for better impact resistance etc. complete. Nylon button stopper to hold glass top in position, Nylon bushers etc. complete.	As directed by Engineer-in-charge	
	900 x 450 x 1200 - 2 SHELVES		
	SOR-23/R3-CS-FUR-11-a/255		
ITEM No.241	Repairing of honey combed or spilling area by chipping out the damaged spalled or honey combed portion of concrete upto rusted rebars, cleaning of all rust, scale and loose materials, scaffolding, compressed air machinery etc. complete.(item includes use of air compressor, chipping machine and scaffolding for height 8 to 10 meter)	As directed by Engineer-in-charge	
	Removing corrosion of steel reinforcement by mechanical means like wire brushing, chipping to remove loose rust and then applying rust removal solution by using brush application, leaving the surface for at least 15 to 30 minutes, then removing loose materials by scrubbing or with brush. After detachment of loose scales reddish rusted surface is still left exposed, this has to be retreated or as per approved manufacturers specifications. (Note:- Consider surface area of concrete for payment)	As directed by Engineer-in-charge	
ITEM No.242	Anticorrosive treatment to expose reinforcement in two coats with time interval of minimum 4 hours between each coat. The application shall be done by brush	As directed by Engineer-in-charge	
ITEM No.243	Providing and fixing in position TMT-FE-500 bar reinforcement of various diameters for R.C.C. pile caps, footings, foundations, slabs, beams columns, canopies, staircase, newels, chajjas, lintels pardis, copings, fins, arches etc. as per detailed designs, drawings and schedules. including cutting, bending, hooking the bars, binding with wires or tack welding and supporting as required complete.	As directed by Engineer-in-charge	
ITEM No.244	Repairing to the existing RCC structural members (vertical or horizontal) using ready mix Polymer Modified Mortar (Fibre reinforced structural grade repair mortar) of approved brand where the thickness of repair is upto 15 mm. It can be used for carrying out extensive repairs to beams, columns, slab, and other structural elements, repairing of structural members subjected to repetitive loading for strengthening. Procedure for carrying out repair Polymer Modified Mortar -	As directed by Engineer-in-charge	
ITEM No.245	Surface preparation- (separate payment shall be made) All loose traces of concrete or mortar, dust, grease oil, etc. must be removed. Damaged or contaminated concrete shall be removed to obtain a keyed aggregate exposed surface. Non-impact/ vibrating cleaning methods, e.g. grit or high pressure water blasting are recommended. Clean all exposed reinforcement to a minimum grade of Sa 2 according to ISO 8501-1 / ISO 2944-4. Ensure all visible portions of the reinforcing bar is clean. Where reinforcing bars are corroded, cut back the concrete around the reinforcing bars, Grit blast to remove corrosion products from around reinforcing bars and coat with approved epoxy coating for corrosion protection or any other protective coating as recommended by the Structural Engineer to protect from corrosion. Replace the affected part of rebar if the diameter after grit blasting is found reduced by more than 20% of the original diameter on the advice of the structural engineer responsible for the works. Bond Coat- (separate payment shall be made only for bond coat used for old surface to new surface) Providing & applying One coat of structural grade epoxy bond coat by brush conforming to ASTM-C-882-87 to the prepared concrete surface to be repaired / strengthened and repairing with PMM shall be done when the surface is tacky.	As directed by Engineer-in-charge	

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Sr.No.	ITEM	Specification	Additional Specification
	Mixing - Only full bags are mixed. Damaged or opened bags should not be used. Mix the ready-mix Polymer Modified Mortar in a forced action pan mixer, or with a helical paddle attached to a low speed (300-600rpm) mixer for 3 minutes until a lump free, thixotropic consistency is achieved. Only use clean water. Mixing water needed: 3.75 to 4.25 litres per 25kg bag or as recommended by the Manufacturer of Polymer Modified Mortar. Allow the mortar to rest for 2 - 3 minutes and then remix briefly before pouring into formwork. If temperature more than 40°C then use chilled water for mixing.		
	Mortar application- The minimum temperatures must be maintained during application and for at least 24 hours thereafter for optimum curing of the product. The prepared substrate should be presoaked, preferably for 24 hours, but at least 2 hours before applying Polymer Modified Mortar. The surface must be saturated surface dry, but without standing water. Polymer Modified Mortar can be spray- or hand-applied. Apply mixed product directly to the prepared damp substrate, or wet on wet onto the primed surface. Spraying the material with the necessary pressure will ensure good adhesion of the material. A thin scrape coat or contact layer before building up to the required thickness, wet on wet, will improve adhesion especially in case of hand application. Apply to the desired layer thickness upto 15 mm and level using a screeding bar, trowel or wooden board. Smoothing with a trowel or finishing by float or sponge can be done as soon as the mortar has begun to stiffen.		
	Protective coatings Subsequent coatings of any anticarbonation barriers or silane impregnations should be applied if recommended by the Structural Engineer. Plaster- (No separate payment shall be made) The repaired surface shall be matched to the surrounding surface by providing required thickness of plaster internal or external plaster. Curing Minimum 7 days curing shall be done to the newly repaired area using any suitable method. Required Compressive strength (ASTM C109 7cm cube) Ready Mix Polymer Modified Mortar used on site shall be sent for testing of compressive strength and minimum strength required to be achieved is as follows –1 Day-15 MPa, 3 Day-25 MPa, 7 Day-35 MPa, 28 Day-45 MPa.		
ITEM No.246	Repairing to the existing RCC structural members (vertical or horizontal) using ready mix Polymer Modified Mortar (Fibre reinforced structural grade repair mortar) of approved brand where the thickness of repair is upto 30 mm in two layers. It can be used for carrying out extensive repairs to beams, columns, slab, and other structural elements, repairing of structural members subjected to repetitive loading for strengthening. Procedure for carrying out repair Polymer Modified Mortar -	As directed by Engineer-in-charge	
	Surface preparation- (separate payment shall be made) All loose traces of concrete or mortar, dust, grease oil, etc. must be removed. Damaged or contaminated concrete shall be removed to obtain a keyed aggregate exposed surface. Non-impact/ vibrating cleaning methods, e.g. grit or high pressure water blasting are recommended. Clean all exposed reinforcement to a minimum grade of Sa 2 according to ISO 8501-1 / ISO 2944-4. Ensure all visible portions of the reinforcing bar is clean. Where reinforcing bars are corroded, cut back the concrete around the reinforcing bars, Grit blast to remove corrosion products from around reinforcing bars and coat with approved epoxy coating for corrosion protection or any other protective coating as recommended by the Structural Engineer to protect from corrosion. Replace the affected part of rebar if the diameter after grit blasting is found reduced by more than 20% of the original diameter on the advice of the structural engineer responsible for the works. Bond Coat- (separate payment shall be made only for bond coat used for old surface to new surface) Providing & applying One coat of structural grade epoxy bond coat by brush conforming to ASTM-C-882-87 to the prepared concrete surface to be repaired / strengthened and repairing with PMM shall be done when the surface is tacky.		

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Sr.No.	ITEM	Specification	Additional Specification
	Mixing - Only full bags are mixed. Damaged or opened bags should not be used. Mix the ready-mix Polymer Modified Mortar in a forced action pan mixer, or with a helical paddle attached to a low speed (300-600rpm) mixer for 3 minutes until a lump free, thixotropic consistency is achieved. Only use clean water. Mixing water needed: 3.75 to 4.25 litres per 25kg bag or as recommended by the Manufacturer of Polymer Modified Mortar. Allow the mortar to rest for 2 - 3 minutes and then remix briefly before pouring into formwork. If temperature more than 40°C then use chilled water for mixing.		
	Mortar application- The minimum temperatures must be maintained during application and for at least 24 hours thereafter for optimum curing of the product. The prepared substrate should be presoaked, preferably for 24 hours, but at least 2 hours before applying Polymer Modified Mortar. The surface must be saturated surface dry, but without standing water. Polymer Modified Mortar can be spray- or hand-applied. Apply mixed product directly to the prepared damp substrate, or wet on wet onto the primed surface. Spraying the material with the necessary pressure will ensure good adhesion of the material. A thin scrape coat or contact layer before building up to the required thickness, wet on wet, will improve adhesion especially in case of hand application. Apply to the desired layer thickness upto 15 mm and level using a screeding bar, trowel or wooden board. Smoothing with a trowel or finishing by float or sponge can be done as soon as the mortar has begun to stiffen.		
	Protective coatings Subsequent coatings of any anticarbonation barriers or silane impregnations should be applied if recommended by the Structural Engineer. Plaster- (No separate payment shall be made) The repaired surface shall be matched to the surrounding surface by providing required thickness of plaster internal or external plaster. Curing Minimum 7 days curing shall be done to the newly repaired area using any suitable method. Required Compressive strength (ASTM C109 7cm cube) Ready Mix Polymer Modified Mortar used on site shall be sent for testing of compressive strength and minimum strength required to be achieved is as follows –1 Day-15 MPa, 3 Day-25 MPa, 7 Day-35 MPa, 28 Day-45 MPa.		
ITEM No.247	Providing and applying epoxy mortar for repairs to cracked portions of RCC columns, piers, beams, girders, diaphragms, slabs, parapets etc. including chipping the loose cracked concrete, cleaning the surface and removing the rust thoroughly and completely by means of wire brushes, sand blasting and washing with water etc. rebuilding the section by first applying one coat of epoxy primer coat of araldite / GY 257 and hardener HY840 in 100:50 proportion by weight, applying epoxy mortar prepared by mixing araldite, hardener and quartzite sand in 100:50:900 proportion by weight in required shape and architectural finishes, if any, finishing the surface smooth including applying a seal coat of araldite and hardener in 100:50 proportion by weight with stiff nylon bristle brush etc. complete as specified as directed.	MCGM Bridge SOR 2023 Page No. 82 Item No. : R3- BW-5-5-c	
ITEM No.248	Repairing to the existing RCC structural members (vertical or horizontal) using ready mix Micro Concrete of approved brand where the thickness of repair is more than 30 mm and upto 115 mm. It can be used for carrying out extensive repairs to beams, columns and other structural elements, repairing of structural members subjected to repetitive loading & for Jacketing of beams, columns and other structural elements for strengthening.Procedure for carrying out repairing/jacketing using ready mix micro concrete-	MCGM USOR Bldg. 31.01.23 Page No. 22 Item No. : R3- CS-CW-45	

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Sr.No.	ITEM	Specification	Additional Specification
	Surface preparation- (separate payment shall be made) All loose traces of concrete or mortar, dust, grease oil, etc. must be removed. Damaged or contaminated concrete shall be removed to obtain a keyed aggregate exposed surface. Non-impact/ vibrating cleaning methods, e.g. grit or high pressure water blasting are recommended. Cut the edges of the repair vertically to a minimum depth of 20 mm. Clean all exposed reinforcement to a minimum grade of Sa 2 according to ISO 8501-1 / ISO 2944-4. Ensure back of reinforcing bar is also clean. Where reinforcing bars are corroded, cut back the concrete to at least 20mm behind the reinforcing bars and coat old and new with approved epoxy coating for corrosion protection Water Powder ration Grit blast around the reinforcing bars to remove corrosion products or any other method recommended by Engineer In charge or Structural Consultant. Replace the affected part of reinforcing bar if the diameter after grit blasting is found reduced by more than 20% of the original diameter on the advice of the structural engineer responsible for the works. Bond Coat- (separate payment shall be made) Providing & applying One coat of structural grade epoxy bond coat by brush conforming to ASTM-C-882-87 to the prepared concrete surface to be repaired / strengthened and micro concreting pouring shall be done when the surface is tacky.		
	Formwork – (No separate payment shall be made)The forms must be of good quality, treated with a chemical release agent for smooth release, provided with water drain holes, strong and well braced to withstand the fluid pressure of the mortar until it hardens.Mixing - Only full bags are mixed. Damaged or opened bags should not be used. Mix the ready mix Micro Concrete in a forced action pan mixer, or with a helical paddle attached to a low speed (300-600rpm) mixer for 3 minutes until a lump free, flowable consistency is achieved. Only use clean water. Mixing water needed: 3.25 to 3.75 litres per 25kg bag or as recommended by the Manufacturer of Micro Concrete. Allow the mortar to rest for 2 - 3 minutes and then remix briefly before pouring into formwork. If temperature more than 40°C then use chilled water for mixing.		
	Mortar application-The minimum temperatures must be maintained during application and for at least 24 hours thereafter for optimum curing of the product. The prepared substrate should be presoaked, preferably for 24 hours, but at least 2 hours before applying Ready Mix Micro Concrete ensure all water is removed from formwork prior to installation and formwork is resealed. Ready Mix Micro Concrete should be pumped or poured into the prepared formwork until the void is filled. Pumping is recommended for larger pours. Do not vibrate Ready Mix Micro Concrete as it could lead to segregation. The formwork should be removed after 1-3 days and a curing compound applied. If subsequent coats are to be applied the use of clear polythene is recommended for the first three days after removal of formwork. For repairs beyond 80m m to 100mm in thickness, extend Ready Mix Micro Concrete with up to 25kg of 5-12mm sized washed, saturated surface-dry (SSD), graded low absorption, high density aggregates. Protective coatings- (separate payment shall be made) Subsequent coatings of any anticarbonation barriers or silane impregnations should be applied if recommend by the Structural Engineer.		
	Curing -Minimum 7 days curing shall be done to the newly repaired/jacketed area using any suitable method.Required Compressive strength (ASTM C109 7cm cube) Ready Mix Micro Concrete used on site shall be sent for testing of compressive strength and minimum strength required to be achieved is as follows –1 Day-15 MPa, 3 Day-25 MPa, 7 Day-35 MPa, 28 Day-40 MPa. Note- Payment is to be made by weight premixed of micro concrete product consumed as per site register records.		
ITEM No.249	Providing and laying insitu / ready mix M35 grade RCC jacketing work around the existing piers of bridges etc. complete. (with fully automatic micro processor based PLC with SCADA enabled concrete batch mix plant / pan mixer with fine agreeegates of required specifications (VSI sand finely washed etc), height of 8 to 10 meter). SSR 22-23 Page No. 125 Item No : 16.07	As directed by Engineer-in-charge	

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Sr.No.	ITEM	Specification	Additional Specification
ITEM No.250	Providing & applying structural grade epoxy approved bond coat prior to application of any type of mortar confirming to IS codes or equivalent to ensure bond between old concrete & new concrete by brush application etc complete. SSR 22-23 Page No. 150 Item No : 19.33	As directed by Engineer-in-charge	
ITEM No.251	Sealing of cracks/porous concrete by injection process through nipples/Grouting complete as per Technical specification Cement Grout MCGM Bridge SOR 2023 Page No. 93	As directed by Engineer-in-charge	
ITEM No.252	Providing Grouting of nozzles with Low Viscosity Epoxy grout including material, labour complete in all respect. SSR 22-23 Page No. 149 Item No : 19.24	As directed by Engineer-in-charge	
ITEM No.253	Providing and inserting nipples with approved fixing compound after drilling holes for grouting as per Technical specifications including subsequent cutting/removal and sealing of the hole as necessary of nipples after completion of grouting with Cement/Epoxy MCGM Bridge SOR Page No. 93	As directed by Engineer-in-charge	
ITEM No.254	Dismantling brick masonry in lime or cement mortar and stacking the materials as directed with all leads, lifts etc. SSR 22-23 Page No. 296 Item No : 46.09	As directed by Engineer-in-charge	
ITEM No.255	Providing second class Burnt Brick masonry with conventional/ I.S. type bricks in cement mortar 1:6 in superstructure including striking joints, raking out joints, watering and scaffolding etc. Complete SSR 22-23 Page No. 197 Item No : 27.05	Bd.G.5 Page One Number 315	
ITEM No.257	Removing rich mix cement concrete including stacking the spoils as directed with all leads, lifts etc, complete. SSR 22-23 Page No. 296 Item No : 46.13	As directed by Engineer-in-charge	
ITEM No.258	Excavation for foundation in earth, soil of all types, sand, gravel and soft murum, including removing the excavated material upto a distance of 50m. beyond the building area and stacking and spreading as directed, dewatering, preparing the bed for the foundation and necessary backfilling, ramming, watering including shoring and strutting etc. complete. (Lift upto 0.00 to 1.50 m.) By Manual Means SSR 22-23 Page No. 153 Item No : 21.01	Bd.A.1 Page One Number 259	
	Excavation for foundation in earth, soil of all types, sand, gravel and soft murum, including removing the excavated material upto a distance of 50m. beyond the building area and stacking and spreading as directed, dewatering, preparing the bed for the foundation and necessary backfilling, ramming, watering including shoring and strutting etc. complete. (Lift upto 0.00 to 1.50 m.) By Manual Means		
ITEM No.259	Providing dry/ trap/ granite/ quartzite/ gneiss rubble stone soling 15cm to 20cm thick including hand packing and compacting etc. complete SSR 22-23 Page No. 157 Item No : 21.38	Bd.A. 12 PageOne Number 264	
	Providing dry/ trap/ granite/ quartzite/ gneiss rubble stone soling 15cm to 20cm thick including hand packing and compacting etc. complete		
ITEM No.260	Providing and laying Cast insitu/ Ready Mix cement concrete in M15 of trap/ granite/ quartzite/ gneiss metal for foundation and bedding/ steps including steel centering, formwork, laying/ pumping, compacting, roughening them if special finish is to be provided, finishing uneven and honey combed surface and curing etc. complete. The Cement Mortar 1:3 plaster is considered for rendering uneven and honey combed surface, only. Newly laid concrete shall be covered by gunny bag, plastic, tarpaulin etc. (Wooden centering will not be allowed.), with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade) SSR 22-23 Page No. 175 Item No : 24.04	Bd.E.2 Page One Number 288 andB.7 Page No 38	

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Sr.No.	ITEM	Specification	Additional Specification
	Providing and laying Cast insitu/ Ready Mix cement concrete in M15 of trap/ granite/ quartzite/ gneiss metal for foundation and bedding/ steps including steel centering, formwork, laying/ pumping, compacting, roughening them if special finish is to be provided, finishing uneven and honey combed surface and curing etc. complete. The Cement Mortar 1:3 plaster is considered for rendering uneven and honey combed surface, only. Newly laid concrete shall be covered by gunny bag, plastic, tarpaulin etc. (Wooden centering will not be allowed.), with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)		
ITEM No.261	Shear Connectors: Make 10/12 mm dia holes using heavy duty electrically operated hammer drills in the concrete of RCC members to a depth of about 75 mm at 500 mm c/c or at suitable grid in zig-zag fashion, clean the holes using air jet and fix pre- fabricated 100 x 50 mm L-shape 8 mm dia rebar using Anti Corrosive protective coating so that 75 mm out of 100 mm is inserted inside the concrete and 25 mm remain outside along with 50 mm bend. The shear connectors are used to tie the additional reinforcement bars MCGM USOR Bldg. 31.01.23 Page No. 245	As directed by Engineer-in-charge	
ITEM No.262	Providing and laying Cast in situ/ Ready Mix cement concrete M-25 of trap/ granite/ quartzite/ gneiss metal for R.C.C. slabs and landings as per detailed designs and drawings including steel centering, formwork, cover blocks, laying/ pumping, compaction finishing the formed surfaces with cement mortar 1:3 of sufficient minimum thickness to give a smooth and even surface or roughening if special finish is to be provided and curing etc. complete, (Excluding reinforcement and structural steel). with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade) SSR 22-23 Page No. 182 Item No : 25.72	Bd.F.8 Page One Number 302 and B.7, Page One Number38	
ITEM No.263	Removing brick bat coba including stacking the spoils as directed with all leads, lifts etc, complete. SSR 22-23 Page No. 296 Item No : 46.14	As directed by Engineer-in-charge	
ITEM No.264	Lowering down the debris obtained from breaking and removing the cement plaster/ burnt brick masonry of the first floor by any means without causing dust nuisance and damage to structure, stacking the same as and where directed including cleaning the site complete SSR 22-23 Page No. 301 Item No : 46.59	As directed by Engineer-in-charge	
ITEM No.265	Water proofing treatment to the chajja after removing old plaster and roughening the surface and finishing the top surface with 20mm thk. 1:2 c.s. plaster with approved water proofing compounds and neat cement finish, the rate also includes for 1:3 c.s. facia of chajja to match the new surface(actual area treated will be paid). MCGM USOR Bldg. 31.01.23 Page No. 61	As directed by Engineer-in-charge	
ITEM No.266	Providing and applying of MARISEAL 250 or equivalent approved make of Polyurethane coating in two coats for terrace waterproofing having more than 400 % elongation at break. The final curing time shall be of 7 days. The Water Vapor Permeability shall be more than 25 gr/m2 /day. The service temperature shall be of 30 to 90 Deg Cel and the adhesion to concrete properties shall be more than 1.5 N/mm2. The coating shall be highly permanent elastic, cold applied and cold curing, one component polyurethane membrane. The coating shall have mechanical, chemical, thermal, UV and natural element resistance properties. The MARISEAL 710 Polyurethane Primer or equivalent approved make solvent based primer shall be used for quick drying. The MARISEAL FABRIC or equivalent approved make shall be used as a reinforcing fabric for liquid applied waterproofing membranes.	As directed by Engineer-in-charge	
ITEM No.267	Removing the tar or coba and disposing of the material as directed etc. complete. SSR 22-23 Page No. 206 Item No : 31.08	As directed by Engineer-in-charge	

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Sr.No.	ITEM	Specification	Additional Specification
ITEM No.268	Providing and laying APP (Atactic Polypropylene Polymer) modified prefabricated five layer 3 mm thick water proofing membrane, black finished reinforced with non-woven polyester matt consisting of a coat of bitumen primer for bitumen membrane @ 0.40 litre/sqm by the same membrane manufacture of density at 25°C, 0.87-0.89 kg/ litre and viscosity 70-160 cps. Over the primer coat the layer of membrane shall be laid using Butane Torch and sealing all joints etc. and preparing the surface complete. The vital physical and chemical parameters of the membrane shall be as under : Joint strength in longitudinal and transverse direction at 23°C as 650/ 450N/5cm. Tear strength in longitudinal and transverse direction as 300/250N. Softening point of membrane not less than 150°C. Cold flexibility shall be upto -2°C when tested in accordance with ASTM, D - 5147. The laying of membrane shall be got done through the authorised applicator of the manufacturer of membrane 22.20.1 3 mm thick MCGM USOR Bldg 31.01.2023 Page No. 55	As directed by Engineer-in-charge	Item No. : R3-CS-WP-17
ITEM No.269	Removing the existing cement plaster of any thickness without causing dust nuisance and stacking the debris upto a distance of 50 metres or spreading in the compound and cleaning the site etc. complete. SSR 22-23 Item No : 32.33	As directed by Engineer-in-charge	
ITEM No.270	Providing sand faced plaster externally in cement mortar using approved screened sand, in all positions including base coat of 15mm thick in cement mortar 1:4 using waterproofing compound at 1 Kilogram per cement bag curing the same for not less than 2 days and keeping the surface of the base coat rough to receive the sand faced treatment 6 to 8 mm thick in cement mortar 1:4 finishing the surface by taking out grains and curing for fourteen days scaffolding etc.complete. SSR 22-23 Item No : 32.11	Bd.L.7 Page One Number 369	
ITEM No.271	Providing internal cement plaster 12mm thick in single coat in cement mortar 1:4 without neeru finish to concrete or brick surfaces, in all positions including scaffolding and curing etc. complete. SSR 22-23 Item No : 32.04	Bd. L.2 Page One Number 368	
ITEM No.272	Providing internal cement plaster 6mm thick in a single coat in cement mortar 1:4 without neeru finish to concrete surface in all positions including scaffolding and curing etc. complete. SSR 22-23 Item No : 32.01	Bd.L.1 Page One Number 367	
ITEM No.273	Removing mosaic, cement marble, granites non-slippery, tandur, kotah, shahabad stone or Indian Pattern stone, glazed tiles in flooring and dado including bedding brick bat coba etc., and delivering materials in Ward Office and carting away unserviceable materials. MCGM USOR Bldg. 31.01.23	As directed by Engineer-in-charge	R3-CS-DD-64
ITEM No.274	Providing and laying ceramic tiles of having size 30cm.x30cm. and confirming to corresponding I.S. for dado and skirting in required position with ready made adhesive mortar of approved quality on plaster of 1:2 cement mortar including joint filling with white/ colour cement slurry cleaning curing etc. complete. SSR Item No. : 33.25	Bd.M.13 Page One Number 386.	
ITEM No.275	Providing and laying ceramic tiles of having size 30cm.x30cm. and confirming to corresponding I.S. for dado and skirting in required position with ready made adhesive mortar of approved quality on plaster of 1:2 cement mortar including joint filling with white/ colour cement slurry cleaning curing etc. complete. SSR 22-23 Page No. 224 Item No : 35.12	Bd.O.7 Page One Number 406	
ITEM No.276	Providing and applying two coats of flat oil paint of approved colour and shade to internal/ external plastered surfaces including scaffolding if necessary, cleaning and preparing the surface (excluding primer coat) etc. complete. SSR 22-23 Page No. 224 Item No : 35.20	As directed by Engineer-in-charge	
ITEM No.277	Providing and applying priming coat over new/old steel and other metal surfaces including preparing the surface by thoroughly cleaning oil, grease, dirt and other foreign matter and scoured with wire brushes, fine steel wool, scrappers and sand paper, scaffolding etc.complete. SSR 22-23 Page No. 223 Item No : 35.09	Bd.0.6 Page One Number 406	

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Sr.No.	ITEM	Specification	Additional Specification
ITEM No.278	Providing and applying two coats of flat oil paint of approved colour to the old structural steel work and iron work previously painted in building including scaffolding, if necessary, cleaning and preparing the surface (excluding primer coat) etc. complete. SSR 22-23 Page No. 223 Item No : 36.03	Bd. P. I Page One Number 411	
ITEM No.279	Providing and applying white-wash in two coats on old / new plastered or masonry surfaces and asbestos cement sheets including scaffolding and preparing the surface by brushing and brooming down etc. complete. SSR 22-23 Page No. 346 Item No : 50.79	As directed by Engineer-in-charge	
ITEM No.280	Providing and applying two coats Apex Ultima Puranature Anti-Pollution Or equivalent approved brand, paint should decomposes organic substances and inorganic gases (NOx, VOC's, CO, SOx, formaldehydes, etc.) in presence of natural or artificial light. It contains Graphene and nano particles of titanium oxide. and Absorbs CO2 (4.8 Kilogram/15l). plaster crack should be filled by Acrylic base Crack seal/ Textured Crack filler, Paint has to applied on one coat of Apex Ultima Puranature Anti-Pollution Primer or Equivalent. Warranty Should be given by the Manufaturer The work should be done by the Manufacturer Recommended applicator and he should be able to furnish stage wise on site technical reports from the concerned company technologist. SSR 22-23 Page No. 225 Item No : 35.21	As directed by Engineer-in-charge	
ITEM No.281	Providing and applying priming coat on concrete/ masonry/ Asbestos Cement plastered surfaces including scaffolding if necessary, preparing the surface by thoroughly cleaning oil, grease, dirt and other foreign matter and sand papering as required etc.complete. SSR 22-23 Page No. 225 Item No : 35.25	As directed by Engineer-in-charge	
ITEM No.282	Providing and applying priming coat on concrete/ masonry/ Asbestos Cement plastered surfaces including scaffolding if necessary, preparing the surface by thoroughly cleaning oil, grease, dirt and other foreign matter and sand papering as required etc.complete. SSR 22-23 Page No. 223 Item No : 35.03	Bd.0.2 Page One Number 404	
ITEM No.283	Providing and applying two coats of lead/zinc base oil paint/ bituminious paint of approved colour and shade to old wood work and fiber boards previously painted including if necessary scaffolding, preparing the surface excluding priming coat etc. complete. MCGM ROADS USOR 2022	As directed by Engineer-in-charge	R3-RW-7-07
ITEM No.284	Removing existing barbed wire fencing/pipe railing of any height, including posts & carting away the same to Ward Chowky & stacking the same neatly as directed. SSR 22-23 Page No. 297 Item No : 46.29	As directed by Engineer-in-charge	
ITEM No.285	Dismantling the R.C.C. Work 1:2:4 and sorting out the materials such as steel etc. as directed and stacking them within the specified lead as directed etc. complete. SSR 22-23 Page No. 175 Item No : 24.04	Bd.E.2 Page One Number 288 andB.7 Page No 38	
ITEM No.286	Providing and laying Cast insitu/ Ready Mix cement concrete in M15 of trap/ granite/ quartzite/ gneiss metal for foundation and bedding/ steps including steel centering, formwork, laying/ pumping, compacting, roughening them if special finish is to be provided, finishing uneven and honey combed surface and curing etc. complete. The Cement Mortar 1:3 plaster is considered for rendering uneven and honey combed surface, only. Newly laid concrete shall be covered by gunny bag, plastic, tarpaulin etc. (Wooden centering will not be allowed.), with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade) SSR 22-23 Page No. 186 Item No : 26.26	Bd. F. 13 Page One Number 305/I.S. 456 (2000	

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Sr.No.	ITEM	Specification	Additional Specification
ITEM No.287	Providing and laying Cast in situ/ Ready Mix cement concrete in M-25 of trap/ quartzite/ granite/ gneiss metal for R.C.C. Waist slab, and steps of staircases as per detailed design and drawings or as directed including steel centering, plywood/ steel formwork, steel props, laying/ pumping, compaction, finishing uneven and honey combed surface with C.M. 1:3 of sufficient minimum thickness to give a smooth and even surface or roughening the surface if special finishis to be provided and curing etc. complete. (Excluding reinforcement, including cover block). (Newly laid concrete shall be covered by gunny bag, plastic, tarpaulin etc.) with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand VSI Grade) SSR 22-23 Page No. 265 Item No : 40.08	As directed by Engineer-in-charge	
ITEM No.288	Providing and Fixing mat finish stainless steel (of 302 grade) railing with top pipe of 50mm dia. and vertical pipe of 38mm dia at 0.60m c/c or as required and horizontal pipes of 25mm dia in three rows, all pipes of 2mm thick including buffing, fabricating fixtures and fastening including pipe base of appropriate diameter and ball base of 75mm dia above newel post of 75mm diameter etc. complete (Prior approval of sample and brand by Ex.Engineer is necessary before use) SSR 22-23 Page No. 215 Item No : 33.18	Bd.M.22 Page One Number 390	
ITEM No.289	Providing and laying machine cut machine polished machine cut Kota stone slabs 20 to 25 mm thick for treads and risers of steps and staircases, with rounded nosing for the treads on a bed of 1:4 cement mortar including cement float, filling joints with neat cement slurry, curing, polishing and cleaning etc. complete. SSR 22-23 Page No. 220 Item No : 33.75	Bd. M-3 page One Number 380	
ITEM No.290	Providing and laying Polished Kota stone flooring With Hand-Cut Polished Kota Stones 25mm to 30mm thick and required width in plain/diamond pattern on bed of 1:6 Cement mortar including cement float, filling joints with neat cement slurry, curing, cleaning and Mirror Polishing etc. complete Note-Water absorption for kota stone should not exceed 0.05%. (Item to be used with prior permission of Superintending Engineer) SSR 22-23 Page No. 221 Item No : 33.81	As directed by Engineer-in-charge	
ITEM No.291	Providing and fixing in required position skirting or dado of polished Kotah Stone slab 25mm to 30mm thick fixed on base on plaster of cement mortar 1:4 including cement float, filling joints with cement slurry, curing rubbing, polishing and cleaning complete. MCGM USOR Bldg. 31.01.23	As directed by Engineer-in-charge	R3-CS-RW-10
ITEM No.292	Removing Existing Mangalore tiles / AC / GI / Galvalume Sheets / polycarbonate plain and corrugated sheets from roof / cladding / partitions etc., excluding supporting structure but including scaffolding, handling, transporting, sorting and stacking at site lead up to 150m and or disposing etc complete as directed.	As directed by Engineer-in-charge	
ITEM No.293	Providing & installing pre insulated roof panels of QUADCORE or equivalent approved make of trapezoidal micro ribbed of approved colour RAL 9002 or similar make. The thickness of roof panel shall be 60mm including 0.50 mm pre painted galvalume steel on both sides. The sheet grade shall be of 300 Mpa with silicone modified polyester (SMP) type of coating with 150 GSM. The roof panel shall be fire safe and shall have minimum density of 40 kg/cum. The panels shall be jointless and shall have length up to 11.8 mtr. The panel width shall be 1.1 mts approx. The thermal conductivity of roof panel is as minimum as 0.018W/mk. The core shall be made of self-blended hybrid insulation core with composition of foam based closed cell structure. The panel shall be made up of green material and shall be suitable for internal and external areas for application. Approved Make -Kingspan Jindal QUADCORE or equivalent approved.	As directed by Engineer-in-charge	
ITEM No.294	Providing & installing flashings in 0.5mm pre painted galvalume steel (PPGL) Approved Make - Kingspan Jindal or equivalent MCGM USOR Bldg. 31.01.23	As directed by Engineer-in-charge	R3-CS-RW-08
ITEM No.295	Providing and fixing in position UV resistant, fire retardant, virtually unbreakable and temperature resistant (-40° C to +130° C) Polycarbonate corrugated sheet of 2mm thickness for roof of approved make to match the roof profile at any height with G.I. J hooks bolts of G.I. clamps nuts & bolts or with self drilling fastener and EPDM washer etc. complete as directed.	As directed by Engineer-in-charge	

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Sr.No.	ITEM	Specification	Additional Specification
ITEM No.296	Providing and fabricating structural steel work in rolled sections like joists, channels, angles, tees etc. as per detailed design and drawings or as directed including cutting, fabricating, hoisting, erecting, fixing in position making riveted/ bolted/ welded connections without connecting plates, braces etc. and including one coat of anticorrosive paint and over it two coats of oil painting of approved quality and shade etc. complete. SSR 22-23 Page No. 173 Item No : 23.01	Bd.C.2 Page One Number 275	
ITEM No.297	Dismantling steel work in built up sections in angles, tees, flats and channels of rolling shutters, grills, gates, fencing, hoardings, including all gusset plates, bolts, nuts, cutting rivets, welding etc. including dismembering and stacking within 50metres lead. MCGM USOR Bldg. 31.01.23	As directed by Engineer-in-charge	R3-CS-DD-14
ITEM No.298	Providing and fixing 900 mm high S.S. 304 Grade Stainless steel railing with 40mm diameter and 1.5mm thick at top, 40mm diameter and 1.5mm thick vertical supports spaced at 1.5m center to center and 8mm thick toughened glass including fabricating, fixtures, erecting, necessary welding, grinding, finishing, buffing to stainless steel pipe etc. complete. SSR 22-23 Item No. : 40.07	As directed by Engineer-in-charge	
ITEM No.299	Removing cast iron or wrought iron or A.C. pipe and stacking them as directed with all leads, lifts etc. complete. SSR 22-23 Item No. : 46.28	As directed by Engineer-in-charge	
ITEM No.300	Providing and fixing P.V.C. Rain water pipes of 160mm outer diameter and having wall thickness of 2.2 to 2.7 mm confirming to I.S.13592-1992 including proper rain water receiving recess with P.V.C. plug, bend, necessary fittings, such as, offsets, shoes, including fixing the pipe on wall using approved wooden cleats projecting 25mm to 40mm from face of wall a fixing with clips of approved quality and One Number, filing the joint using rubber gasket with solvent cement and properly resting the shoe of pipes on C.C. or masonry blocks, including necessary scaffolding and maintenance for 3 yrs for any leakages or dislocations of pipes. All the P.V.C. fittings and additional 2 piece socket clips shall be got approved from engineer in charge etc. complete.	As directed by Engineer-in-charge	
ITEM No.301	Providing and fixing P.V.C. Rain water pipes of 110mm outer diameter and having wall thickness of 2.2 to 2.7 mm confirming to I.S.13592-1992 including proper rain water receiving recess with P.V.C. plug, bend, necessary fittings, such as, offsets, shoes, including fixing the pipe on wall using approved wooden cleats projecting 25mm to 40mm from face of wall a fixing with clips of approved quality and One Number, filing the joint using rubber gasket with solvent cement and properly resting the shoe of pipes on C.C. or masonry blocks, including necessary scaffolding and maintenance for 3 yrs for any leakages or dislocations of pipes. All the P.V.C. fittings and additional 2 piece socket clips shall be got approved from engineer in charge etc. complete. SSR 22-23 Item No. : 42.87	As directed by Engineer-in-charge	
ITEM No.302	Removal of plants/ ficus grown by pulling out root system embedded in masnory, cutting stem and application of high/ gur/ lime formulation as specified by the Architect or other patented chemical biocide treatment such as biocide 'Glycel' (iso proplamine salt of glyphosate) or other chemical as specified by the Engineer in charge etc. complete. SSR 22-23 Item No : 46.58	As directed by Engineer-in-charge	
ITEM No.303	Providing antitermite treatment to the sides of flooring of the existing building as per I.S.6313 (Part-III) by punching holes 6mm dia. drilled at a distance of 30cm. centre to centre and injecting one percent of chlorodane emulsion concentrate at the rate of 50 ml per hole and sealing by filling putty etc. complete covering 2 years guarantee on bond paper. SSR 22-23Item No : 21.28	As directed by Engineer-in-charge	
ITEM No.304	Providing and fixing Jute Kantan (Tarat) screen to the scaffold-ing for external guniting as directed including removing the same after the work is over etc. complete. SSR 22-23 Item No : 46.38	As directed by Engineer-in-charge	
ITEM No.305	Disposal of building rubbish / malba / similar unserviceable, dismantled or waste materials by mechanical means including loading, transporting, unloading to approved municipal dumping ground or as approved by Engineer-in-charge, beyond 50 m initial lead, for all loads including all lifts involved.For 25 Km Lead SSR 22-23 Page No. 560 Item : Statement C	As directed by Engineer-in-charge	

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Sr.No.	ITEM	Specification	Additional Specification
ITEM No.306	Disposal of building rubbish / malba / similar unserviceable, dismantled or waste materials by mechanical means including loading, transporting, unloading to approved municipal dumping ground or as approved by Engineer-in-charge, beyond 50 m initial lead, for all loads including all lifts involved. For 25 Km Lead	As directed by Engineer-in-charge	
ITEM No.307	Removing existing existing RCC ballusters as directed by the Engineer In Charge.	As directed by Engineer-in-charge	
ITEM No.308	Providing and Fixing mat finish stainless steel (of 302 grade) railing with top pipe of 50 mm dia. and vertical pipe of 38 mm dia at 0.60 m c/c or as required and horizontal pipes of 25 mm dia in three rows, all pipes of 2 mm thick including buffing,fabricating fixtures and fastening including pipe base of appropriate diameter and ball base of 75 mm dia above newel post of 75 mm diameter etc. complete (Prior approval of sample and brand by Ex.Engineer is necessary before use) SSR 22-23 Page No. 265 Item No : 40.08	As directed by Engineer-in-charge	