CIN: U60300UP2013SGC060836

उत्तर प्रदेश मेट्रो रेल कॉरपोरेशन लि0
UTTAR PRADESH METRO RAIL CORPORATION LTD.
(Formerly Known as Lucknow Metro Rail Corporation Ltd.)
(भारत सरकार एवं उत्तर प्रदेश सरकार का एक संयुक्त उपक्रम)
(A JOINT VENTURE OF GOVT. OF INDIA & GOVT. OF U.P.)

No. UPMRC/CE-Contract/KNPCC-11/2022-23 Date:14.06.2023

ADDENDUM-05

Title/Name of work: Tender KNPCC-11: Design and Construction of TBM Tunnel, Cut & Cover Tunnel, ramp after Double Pullia, ramps in Agriculture Depot for main line and depot connections and three underground metro stations (viz. Rawatpur, Kakadeo and Double Pullia) including Architectural finishes etc. on Corridor-2 of Kanpur MRTS Project at Kanpur, Uttar Pradesh, India.

Addendum-05 along with replies to pre-bid queries of the above tender is being issued and uploaded on CPP Portal. Revised excel file of BOQ has also been uploaded on CPP Portal.

Link for downloading the Auto CAD format of revised drawings is as under:

https://drive.google.com/file/d/1znoA0yTytCaJAtuqXf38P4IoG9RIbbe3/view?usp=drive_link

For any further modifications/changes (if any). bidders are advised to stay updated on e-tendering portal (https://etenders.gov.in/eprocure/app) for information please.

Sd/- xxx
CE/Contract

Summary Sheet of Addendum No.05: KNPCC-11

Tender KNPCC-11: Design and Construction of TBM Tunnel, Cut & Cover Tunnel, ramp after Double Pullia, ramps in Agriculture Depot for main line and depot connections and three underground metro stations (viz. Rawatpur, Kakadeo and Double Pullia) including Architectural finishes etc. on Corridor-2 of Kanpur MRTS Project at Kanpur, Uttar Pradesh, India

S. No.	Reference Clause/ Page No.	Clause in Existing Tender Document	Revised Clause	Revised Clause placed as Annexure/ Pg. No.
1	Vol. 1, NIT , Clause 1.1.4.2 B(iv). - Financial Standing: Page 9	In case audited balance sheet of the last financial year is not made available by the tenderer, he has to submit an affidavit certifying that 'the balance sheet has actually not been audited so far'. In such a case the financial data of previous '4' audited financial years will be taken into consideration for evaluation.	In case audited balance sheet of the last financial year is not made available by the tenderer, he has to submit an affidavit certifying that 'the balance sheet has actually not been audited so far'. In such a case the financial data of previous ~~'4'~~ **'2'** audited financial years will be taken into consideration for evaluation.	Please refer Annexure -1 of Addendum-5 Page 9R
2	Vol. 1, NIT Clause 1.1.6 Minimum Key Staff requirement Page 11	-	**The key staff shall have minimum qualification as Degree in a branch appropriate to the nature of Work.**	Please refer Annexure -2 of Addendum-5 Page 11R
3	Vol. 1, NIT Annexure-2 Financial data Page 18	-	Annexure 2 of NIT has been revised	Please refer Annexure -3 of Addendum-5 Page 18R
4	Vol. 1, NIT Annexure-6 Available Bid Capacity Page 22	-	Annexure 6 of NIT has been revised	Please refer Annexure -4 of Addendum-5 Page 22R
5	Volume 1, Clause 1.1.2 of NIT at Page 4	The instrument type for payment of tender security/ EMD shall be Demand Draft, Bank Guarantee, Insurance Surety Bond, RTGS, NEFT & IMPS. No other mode of payment will be accepted.	The instrument type for payment of tender security/ EMD shall be Demand Draft, Bank Guarantee, ~~Insurance Surety Bond~~, RTGS, NEFT & IMPS. No other mode of payment will be accepted.	Please refer Annexure -5 of Addendum-5 Page 4R

S. No.	Reference Clause/ Page No.	Clause in Existing Tender Document	Revised Clause	Revised Clause placed as Annexure/ Pg. No.
6	Vol.2, SCC,Clause 11.2.1, Mobilization Advance Payment, Page 106 & Advance against Plant & Machinery, Clause 11.2.2, Page 106-107 Clause 11.3.3 , Recovery of Advances /Provisional Payment, Page 107	Mobilisation Advance shall be 10% of original contract value payable in two equal instalments ……..Recovery of advance shall be time bound and shall commence after completion of 6 months from the issue of Letter of Acceptance (LOA) and it will be completed within 24 months from the issue of Letter of Acceptance (LOA)	-	Please refer Annexure -6 of Addendum-5 Page 106R-107R
		This advance is payable for plant, equipment and machinery, provided the same have reached the site,.....Recovery of advance shall be time bound and shall commence after completion of 6 months from the issue of Letter of Acceptance (LOA) and it will be completed within 24 months from the issue of Letter of Acceptance (LOA).	The total advance for Plant and Machinery shall be limited to 5% of the total Contract Value of BOQ/Price document and shall be paid against unconditional Bank Guarantees of equal amount from a Schedule Commercial Bank of India. **The Contractor shall submit a certificate from Chartered Accountant that the Plant/Machinery against which Advance is being claimed was not in the books of the Contractor before award of Contract. The Plant and machinery shall be valued by the Engineer as follows :-** **(i) New items : 80% of purchase price** **(ii) Second hand items in working order : 80% of the depreciated value as assessed by the Engineer** **(iii) Items valued at less than Rs 5.00 Lacs per unit : Not to be considered**	
		Following is added below item (c) in Clause 11.3.3 of GCC: In case the recovery of the provisional payment made against at site could not be made as per Clause 11.3.3 (c) of GCC due to any reason, interest shall be charged at rate equal to prime lending rate of SBI plus 2% per annum or 10% per annum whichever is higher.	Following is added below item (c) in Clause 11.3.3 of GCC: In case the recovery of the provisional payment made against **materials** at site could not be made as per Clause 11.3.3 (c) of GCC due to any reason, interest shall be charged at rate equal to prime lending rate of SBI plus 2% per annum or 10% per annum whichever is higher.	

S. No.	Reference Clause/ Page No.	Clause in Existing Tender Document	Revised Clause	Revised Clause placed as Annexure/ Pg. No.
7	Volume 2, Clause 12.5 of SCC, Variation in Bill of Quantity Page 108	Rates shall be negotiated only if the variation in individual items or the group of items is more than 25% on plus side and if the variation is on minus side (saving) in any item or group of items, the payment shall be made as per the rates in the contract for the actually executed quantity of the item. NOTE: In case of EPC Contracts, variation in scope of work awarded on Lump sum price basis shall have a ceiling of 10% of contract price (of Lump sum schedule) to cater for any changes in scope of Project.	~~Rates shall be negotiated only if the variation in individual items or the group of items is more than 25% on plus side and if the variation is on minus side (saving) in any item or group of items, the payment shall be made as per the rates in the contract for the actually executed quantity of the item..~~ **In case the variation in individual items or the group of items as stipulated above, is more than 25% on plus side, the rate for the varied quantity beyond 25% shall be:** **(i) Quantities operated in excess of 125% but up to 140% of the agreement quantity of the concerned item, shall be paid at 98% of the rate awarded for that item in the contract.** **(ii) Quantities operated in excess of 140% but up to 150% of the agreement quantity of the concerned item, shall be paid at 96% of the rate awarded for that item in the contract** **(iii) Variation in quantities of individual items beyond 150% shall be paid at 96% of the rate awarded for that item in the contract or at the rate mutually agreed between the contractor and the employer.** **(iv) The variation in quantities of individual items as per the above formula will apply only to the individual items of the contract and not on the overall contract value** NOTE: In case of EPC Contracts, variation in scope of work awarded on Lump sum price basis shall have a ceiling of 10% of contract price (of Lump sum schedule) to cater for any changes in scope of Project.	Please refer Annexure -7 of Addendum-5 Page 108R
8	Volume–3, Employer's Requirements, SectionB/Functional, Page 19	7. Diversion of chartered utilities and support of chartered as well as unchartered utilities during construction including maintenance of diverted/supported chartered utilities. Besides utilities indicated in the tender drawing, all above ground utilities infringing with the work sites shall also be considered as charted utilities. The maintenance of diverted/supported utilities shall be from the start of construction till handing over it to the concerned utility owning agency.	7. Diversion of chartered utilities and support of chartered as well as unchartered utilities during construction including maintenance of diverted/supported chartered utilities. Besides utilities indicated in the tender drawing, all above ground utilities infringing with the work sites shall also be considered as charted utilities. The maintenance of diverted/supported utilities shall be from the start of construction till handing over it to the concerned utility owning agency. **Strengthening/ protecting of underground charted as well as uncharted utilities with in the alignment of bored tunnel.**	Please refer Annexure -8 of Addendum-5 Page 19R
9	Volume–3, Employer's Requirements,Appendices, Page 65-67	Key Dates & Note	Key Dates & Note have been revised	Please refer Annexure -9 of Addendum-5 `Page 65R-67R

S. No.	Reference Clause/ Page No.	Clause in Existing Tender Document	Revised Clause	Revised Clause placed as Annexure/ Pg. No.
10	Volume–4,Outline Design Specifications ,Section-2 Clause 2.1.1 Page 34	The purpose of this section of these Design Criteria is to establish the minimum requirements for geotechnical site investigations, studies, analyses, and preparation of geotechnical reports and the design recommendations for earthworks, foundations, structures, and substructure design, and the design for bored and cut and cover tunnels for the Agra Metro.	The purpose of this section of these Design Criteria is to establish the minimum requirements for geotechnical site investigations, studies, analyses, and preparation of geotechnical reports and the design recommendations for earthworks, foundations, structures, and substructure design, and the design for bored and cut and cover tunnels for the ~~Agra~~ **Kanpur** Metro.	Please refer Annexure -10 of Addendum-5 Page 34R
11	Volume–4,Outline Design Specifications ,Section-2 Clause 2.7.5 Page 50	Notes: 5) 50 % imposed load is to be used in line with the building mass calculated for seismic loads in load case 2 & 3.	Notes: 5) 50 % imposed load is to be used in line with the building mass calculated for seismic loads in load case ~~2 &~~ 3.	Please refer Annexure -11 of Addendum-5 Page 50R
12	Volume–4,Outline Design Specifications ,Section-2 Clause 2.7.9 Page 52	(a) A segment shall be considered and designed as a short column (as per IS 456 provisions for columns) subjected to axial load with a load factor of 1.4 applied to all loads (including seismic load). The design of the segments shall be adequate for all temporary loads during stacking, lifting, erection and impact.	(a) A segment shall be considered and designed as a short column (as per IS 456 provisions for columns) ~~subjected to axial load with a load factor of 1.4 applied to all loads (including seismic load).~~ The design of the segments shall be adequate for all temporary loads during stacking, lifting, erection and impact.	Please refer Annexure -12 of Addendum-5 Page 52R
13	Volume-4, Outline Design Specifications, Page 55.	The design shall incorporate two sealing gaskets in the segment design. Materials for sealing gaskets shall be one gasket of hydrophilic material and one gasket of elastomeric type. Materials shall have acceptable fire performance for use on an underground railway. Notwithstanding the above limits on groundwater leakage rates, the design shall aim to ensure that no loss of ground occurs through any part of the structure.	The design shall incorporate ~~two sealing gaskets in the segment design~~ **composite extruded strips comprising a gasket of hydrophilic type (minimum width 20mm) and gasket of elastomeric type shall be provided at all faces between segments to provide a seal against ingress of ground water.** ~~Materials for sealing gaskets shall be one gasket of hydrophilic material and one gasket of elastomeric type.~~ Materials shall have acceptable fire performance for use on an underground railway. Notwithstanding the above limits on groundwater leakage rates, the design shall aim to ensure that no loss of ground occurs through any part of the structure.	Please refer Annexure 13 of Addendum-5 Page 55R
14	Volume–4,Outline Design Specifications ,Section-2 Clause 2.8.10 Slab to Wall Connections Page 68	Couplers shall be checked for 100mm cover (vertical tolerance +/-50mm and cover in slab 45/50mm) including tolerance.	~~Couplers shall be checked for 100mm cover (vertical tolerance +/-50mm and cover in slab 45/50mm) including tolerance.~~	Please refer Annexure -14 of Addendum-5 Page 68R
15	Volume 5 Vendor list (Page 305-311)	Vendor list	Vendor list has been updated .	Please refer Annexure -15 of Addendum-5 Page 305R-311R
16	Volume 6 (Part A, B ,C & D)	-	All the Drawings have been revised and placed as Annexure 16 of Addendum-5.	Please refer Annexure 16 of Addendum-5
17	Volume 7, BOQ	-	Complete set of BoQ, Vol 7 has been revised.	Please refer Annexure 17 of Addendum-5
18	Volume–4,Outline Design Specifications ,Section-4 Annexure-A Load Combinations, Page- 102	-	Table at page no. 102 for has been updated.	Please refer Annexure 18 of Addendum-5 Page 102R
19	Volume–4,Outline Design Specifications ,Section-4 Annexure-A Load Combinations, Page- 106-107	-	Table at page no. 106 & 107 has been updated.	Please refer Annexure 19 of Addendum-5 Page 106R & 107R

(iv) T4 - Annual Turnover: The average annual financial turnover of the bidder during the last three years ending 31st March of the previous Financial Years should be at least **Rs.307.50 Crores.**

The average annual turnover of JV/Consortium will be based on percentage participation of each member.

Example: Let Member-1 has percentage participation = M and Member- 2 has = N. Let the average annual turnover of Member-1 is 'A' and that of Member-2 is 'B', then the average annual turnover of JV will be = (AM+BN)/100

Notes:

- Financial data for latest last five audited financial years has to be submitted by the tenderer in **Annexure-2** of NIT along with audited balance sheets. The financial data in the prescribed format shall be certified by the Independent Financial Auditor (Statutory Auditor) of the company appointed under the Company Act or by a Chartered Accountant with his stamp and signature in original. In case any discrepancy in data is found between the balance sheet and the financial information submitted, the data as available in the balance sheet will be considered. In case audited balance sheet of the last financial year is not made available by the tenderer, he has to submit an affidavit certifying that 'the balance sheet has actually not been audited so far'. In such a case the financial data of previous ~~'4'~~ **'2'** audited financial years will be taken into consideration for evaluation. **If audited balance sheet of any other year than the last year is not submitted, the tender may be considered as non-responsive.**
- Where a work is undertaken by a group, only that portion of the contract which is undertaken by the concerned applicant/member should be indicated and the remaining done by the other members of the group be excluded. This is to be substantiated with documentary evidence.

(v) Bid Capacity Criteria:

Bid Capacity: The tenderers will be qualified only if their available bid capacity is more than the approximate cost of work as per NIT. Available bid capacity will be calculated based on the following formula:

Available Bid Capacity = 1.5*A*N – B

Where,

A = Maximum of the value of works executed in any one year during the last five financial years (updated at current price level assuming 7% per annum simple rate inflation for Indian Rupees every year and 2% for foreign currency portions per year), taking into account the completed as well as works in progress.

N = No. of years prescribed for completion of the work

B = Value (updated at current price level assuming 7% per annum simple rate inflation for Indian Rupees every year and 2% for foreign currency portions per year) of existing commitments and on-going works to be completed in next 'N' years.

In the case of a group, the above formula will be applied to each member to the extent of his proposed participation in the execution of the work.

Example for calculation of bid capacity in case of JV / Consortium / Group

General Instruction – 2 of employer SHE manual.

f) Chief Quality Manager – having minimum 15 years of total experience out of which 5 years should be in projects of Metro Construction.

g) Electrical Utility Engineer- having minimum 10 years of total experience out of which 5 years should be for Electrical utility diversion works related to Metro Construction.

h) Safety Manager – As per the qualification and experience given in General Instruction – 2 of employer SHE manual.

The key staff shall have minimum qualification as Degree in a branch appropriate to the nature of work.

NOTE: CVs of above Key Personals shall be submitted in a format that suitably illustrates the Qualifications and Work Experience of Key Personal proposed to be deployed. Indicative proforma for submission of CVs is placed as Annexure – 5 of NIT.

1.1.7 The Tender documents consist of:

Volume 1

Notice Inviting Tender
Instructions to Tenderers (including Annexures)
Form of Tender (including Appendices)

Volume 2

General Conditions of Contracts
Special Conditions of Contract (including Schedules)

Volume 3

Employer's Requirements – General
Employer's Requirements – Functional
Employer's Requirements – Design
Employer's Requirements – Construction
Employer's Requirements – Appendices

Volume 4

Outline Design Specifications

Volume 5

Outline Construction Specifications

Volume 6

Tender Drawings

Volume 7

Bill of Quantities

Volume 8

Condition of Contract on Safety, Health & Environment (SHE)

Volume 9

Reference Document - Geotechnical Report

1.1.8 The contract shall be governed by the documents listed in para 1.1.7 above along with latest edition of CPWD Specification, IRS Specifications & MORTH Specifications. These may be purchased separately from the market by the tenderer.

1.1.9 The tenderers may obtain further information/ clarification, if any, in respect of these tender documents from the office of Chief Engineer (Contract), Uttar Pradesh Metro Rail Corporation, Administrative Building, Vipin Khand, Gomti Nagar, Near Dr. Bhimrao Ambedkar Samajik Parivartan Sthal, Lucknow-226010.

1.1.10 All tenderers are hereby cautioned that tenders containing any material deviation or reservations as described in Clause E4 of "Instructions to Tenderers" and/or minor deviation without quoting the cost of withdrawal shall be considered as non-responsive and is liable to be rejected.

1.1.11 The intending tenderers must be registered on e-tendering portal

ANNEXURE- 2

Financial DATA

Tenderer's name …… **Date……**

(Each Applicant or member of a JV must fill this form separately)

S.N.	Description	Financial Data for Latest Last 5 Years (Indian Rupees)				
		~~2017-2018~~ 2018-2019	~~2018-2019~~ 2019-2020	~~2019-2020~~ 2020-2021	~~2020-2021~~ 2021-2022	~~2021-2022~~ 2022-2023
1.	**Total Assets**					
2.	**Current Assets**					
3.	**Total External Liabilities**					
4.	**Current Liabilities**					
5.	**Annual Profits Before Taxes**					
6.	**Annual Profits After Taxes**					
7.	**Net Worth [= 1 - 3]**					
8.	**Working Capital [=2 - 4]**					
9.	**Return on Equity**					
10	**Gross Annual turnover**					

Attach copies of the audited balance sheets, including all related notes, income statements for the last five audited financial years, as indicated above, complying with the following conditions.

1. Separate Performa shall be used for each member in case of JV/Consortium.
2. All such documents reflect the financial data of the Applicant or member in case of JV, and not sister or Parent Company.
3. Historic financial statements shall be audited by Statutory Auditor of the Company under their seal & stamp and shall be strictly based on Audited Annual Financial results of the relevant period(s). No statements for partial periods will be accepted.
4. Historic financial statements must be complete, including all notes to the financial statements.
5. Foreign applicants, in whose country calendar year is also the financial year, may submit all relevant data for the last 5 years i.e. ~~2017,~~ 2018, 2019, 2020 ~~and~~ 2021 **and 2022.**
6. Return on Equity = Net Income / Shareholders Equity
   Return on Equity = Net Income is for the full fiscal year (before dividends paid to common stock holders but after dividends to preferred stock).
   Shareholders equity does not include preferred shares.
7. The above Annexure shall be duly certified by Chartered Accountant / Company Auditor under his signature & stamp.

Annexure-4

Annexure 6

AVAILABLE BID CAPACITY

(The financial data in this prescribed format shall be certified by Chartered Accountant /Company Auditor under his signature & stamp with UDIN).

Applicant's legal name ……..Date…….

Financial Year	**Annual turnover of Firm**	**Escalated Annual turnover of Firm @ 7% per annum simple rate upto last date of previous month to tender Publish Date**
~~2017-18~~ **2018-19**		
~~2018-19~~ **2019-20**		
~~2019-20~~ **2020-21**		
~~2020-21~~ **2021-22**		
~~2021-22~~ **2022-23**		
Average of Annual turnover		
Maximum of Escalated Annual turnover		
Value of Balance work in hand during completion period of this NIT(B)		
Available Bid Capacity = **1.5*A*N-B** should be more than NIT Value (Where N is number of years prescribed for completion of work in NIT)		

NOTICE INVITING TENDER (NIT)

1.1 GENERAL

1.1.1 NAME OF WORK:

Uttar Pradesh Metro Rail Corporation (UPMRC) Ltd. invites Open e-tenders on International Competitive Basis (ICB) from eligible applicants from all countries and all areas, who fulfill qualification criteria as stipulated in clause 1.1.4 of NIT, for the work **"KNPCC-11 (Funded by EIB): Design and Construction of TBM Tunnel, Cut & Cover Tunnel, ramp after Double Pullia, ramps in Agriculture Depot for main line and depot connections and three underground metro stations (viz. Rawatpur, Kakadeo and Double Pullia) including Architectural finishes etc. on Corridor-2 of Kanpur MRTS Project at Kanpur, Uttar Pradesh, India".**

The brief scope of the work and site information is provided in ITT Clause A1 & Employer's Requirements (Volume –3).

1.1.2 KEY DETAILS:

Approximate cost of work	**INR 1025.00 Crores**
Tender Security amount	**INR 20.50 Crores** The instrument type for payment of tender security/ EMD shall be Demand Draft, Bank Guarantee, ~~Insurance Surety Bond,~~ RTGS, NEFT & IMPS. No other mode of payment will be accepted. (i) Payment of tender Security as per clause C 18.1.2 (i) of ITT is to be made by RTGS, NEFT & IMPS. The details of bank account of UPMRC are mentioned below. The bidders are required to upload scanned copies of transaction of payment of tender security including e-receipt (clearly indicating UTR No. & tender reference must be entered in the remarks at the time of online transaction of payment) in online bid submission, failing which payment may not be considered. (Copy of GST registration no. to be provided along with Tender security) **Name of the Bank -** HDFC Bank **Banks Address -** HDFC Bank Ltd, Tekari Chambers Ashok Marg, Lucknow **Account Name -** UPMRCL (Kanpur Project) **Account No. -** 50100301966502 **IFSC code -** HDFC0001267 (ii) Payment of tender security as per clause C 18.1.2 (ii) of ITT is to be made by BG/Demand Draft. BG/Demand Draft shall be submitted in original in a sealed envelope in the office of CE/ Contract within due date and time of submission end date of tender. **Validity of Tender Security in case of BG** shall remain valid for a period of 45 days beyond the final bid validity period.

28 **Clause 11.2.1 Mobilization Advance Payment**

Clause 11.2.1 of GCC is modified as under:

~~Mobilization Advance shall be 10% of original contract value payable in two equal instalments on the provision by the contractor of an unconditional BG. Such BGs shall remain effective until the advance payment has been fully repaid, but the amount thereof shall be progressively reduced by the amount repaid by the contractor, as indicated in the interim payment certificates.~~

~~The aforesaid advance of 10 (ten) per cent shall be paid in two instalments, each of five per cent. The first one shall be paid on commencement of the work and provision by the contractor of the unconditional BG in respect of the advance. The second instalment shall be paid on certification by the engineer of the contractor's having achieved a financial progress of 10 (ten) per cent of the contract price, as also provision of the BG as stated above by the contractor for this part of the advance. Mobilisation expenditure mentioned herein shall not include the margin money and bank commission, and so on, paid by the contractor for procurement of BGs against performance security and mobilisation advance.~~

~~Recovery of advance shall be time bound and shall commence after completion of 6 months from the issue of Letter of Acceptance (LOA) and it will be completed within 24 months from the issue of Letter of Acceptance (LOA).~~

29 **Clause 11.2.2 Advance Against Plant & Machinery**

~~This advance is payable for plant, equipment and machinery, provided the same have reached the site, or in the case of new items meant specifically for the works, firm purchase order has been placed and the invoices received. The plant and machinery shall be valued by the Engineer as follows:~~

~~a. New items: 80% of purchase price~~

~~b. Used items in working order: 80% of the depreciated value as assessed by the Engineer~~

~~c. Items valued at less than: Not to be considered Rs. 25,000 per unit.~~

The total advance for Plant and Machinery shall be limited to 5% of the total Contract Value of BOQ/Price document and shall be paid against unconditional Bank Guarantees of equal amount from a Schedule Commercial Bank of India.

~~The advance should normally not be more than 50 (fifty) percent of the depreciated cost of such plants and machinery hypothecated to UPMRC, before the payment of advance is released. The hypothecation to UPMRC shall be released after full recovery of plants & machinery advance and issue of "No Dues Certificate" from UPMRC in this regard. This advance shall be subject to the following conditions:~~

~~(i) the contractor shall produce satisfactory proof of payment;~~

~~(ii) such equipment is considered necessary by the engineer for the works;~~

- ~~(iii) the equipment has been verified to have been brought to site;~~

~~(iv) the contractor gives an undertaking on stamp paper that the equipment will work only on that job and will not be removed from the site without obtaining written approval from the engineer;~~

~~and (v) the contractor furnishes the BG as stated above to cover the advance.~~

~~No advance shall be admissible on equipment purchased under a hire purchase scheme/ financing arrangement or on hired equipment.~~

~~Interest on this advance shall be charged at rate equal to prime lending rate of SBI at the time of release of advance.~~

~~Recovery of advance shall be time bound and shall commence after completion of 6 months from the issue of Letter of Acceptance (LOA) and it will be completed within 24 months from the issue of Letter of Acceptance (LOA).~~

The Contractor shall submit a certificate from Chartered Accountant that the Plant/Machinery against which Advance is being claimed was not in the books of the Contractor before award of Contract. The Plant and machinery shall be valued by the Engineer as follows:-

(i)	**New items**	**:**	**80% of purchase price**
(ii)	**Second hand items in working order**	**:**	**80% of the depreciated value as assessed by the Engineer**
(iii)	**Items valued at less than Rs 5.00 Lacs per unit**	**:**	**Not to be considered**

30. **Clause 11.3.3** **Recovery of Advances /Provisional Payment**

Following is added below item (c) in Clause 11.3.3 of GCC:

In case the recovery of the provisional payment made against **materials** at site could not be made as per Clause 11.3.3 (c) of GCC due to any reason, interest shall be charged at rate equal to prime lending rate of SBI plus 2% per annum or 10% per annum whichever is higher.

Withholding and Lien for Sums Claimed

31. **Clause 11.17** In addition to the entitlement of the employer as per Clause 11.17 of GCC, the employer shall have lien over all or any money that may become due and payable to the Contractor under the Contract, and / or over the deposit of Performance Security or other amount or amounts made under the Contract and which may become payable to the contractor.

32. **Clause 12.5** **Variation in the Bill of Quantities**

(f) paragraph of Clause 12.5 of GCC is replaced as under:

~~Rates shall be negotiated only if the variation in individual items or the group of items is more than 25% on plus side and if the variation is on minus side (saving) in any item or group of items, the payment shall be made as per the rates in the contract for the actually executed quantity of the item.~~

In case the variation in individual items or the group of items as stipulated above, is more than 25% on plus side, the rate for the varied quantity beyond 25% shall be:

(i) Quantities operated in excess of 125% but up to 140% of the agreement quantity of the concerned item, shall be paid at 98% of the rate awarded for that item in the contract.

(ii) Quantities operated in excess of 140% but up to 150% of the agreement quantity of the concerned item, shall be paid at 96% of the rate awarded for that item in the contract

(iii) Variation in quantities of individual items beyond 150% shall be paid at 96% of the rate awarded for that item in the contract or at the rate mutually agreed between the contractor and the employer.

(iv) The variation in quantities of individual items as per the above formula will apply only to the individual items of the contract and not on the overall contract value

NOTE: In case of EPC Contracts, variation in scope of work awarded on Lump sum price basis shall have a ceiling of 10% of contract price (of Lump sum schedule) to cater for any changes in scope of Project.

33. **Clause 13.2.1 Conditions Leading to Termination of Contract**

In addition to the conditions stipulated in the GCC, following condition shall also make the Employer entitled to terminate the contract and added at (k):

(i) If the Contractor fails to adhere to the agreed programme of work by margin of 10% of the stipulated period or 21 days, whichever is earlier, or fails to complete the Works or parts of the Works within the stipulated or extended period of completion or is unlikely to complete the whole Work or part thereof within time because of poor record of progress.

(ii) In such a case, the Employer at its sole discretion may terminate only part of the contract also by taking out some part of the total scope of work and may complete or arrange for any other entity through the process of open/limited/single tender or by calling quotations, to do so at the risk and cost of the contractor.

34. **Clause 13.3.4 Payment on Termination and/or Optional Termination due to Force Majeure**

Following is added after (e) in clause 13.3.4 of GCC

For the ease of determination of the cost to be paid to the Contractor, a lump sum payment equal to 2% (two percent) of the value of the work remaining incomplete on the date of Termination notice taking effect shall be paid in place of payments as per sub-clause 13.3.4 (c), (d) & (e).

ANNEXURE-8

2. Design and Construction of Tunnel by Shield TBM, in Soil / Rock Strata from Cut & Cover Depot end to Cut and cover after Double Pulia station (as shown in the tender drawings) connecting Rawatpur, Kakadeo and Double Pulia underground metro stations including cross passages & sumps.
The contractor will submit the method statement of tunnelling under existing railway tracks supported by design calculations and instrumentation and monitoring scheme. Work shall be executed in accordance with the approval and terms and conditions laid by the Indian Railways.

3. Design and Construction of underground, elevated ramps and tunnel by Cut & Cover method, in Soil/Rock Strata as shown in the tender drawings. The Girders of Elevated corridors at both end of contract boundary shall rest on abutment wall of elevated ramp. The contractor shall do necessary interface with contractors of elevator corridor.

4. The contractor shall plan launching/ retrieving shaft/s inside the station box unless otherwise shown in the General Alignment Drawings and properly integrate the tunnel structure with the proposed station. Area available in medical college campus shall be used only for retrieval of TBM.

5. All diversion/strengthening/protection works of the drain/nallah passing across the alignment.

6. Construction of the three underground stations/sub-ways/ramps has to be done under the existing roads by cut & cover method under busy and congested traffic conditions. The work has to be carried out without significantly affecting the traffic. Contractor shall develop appropriate construction methodology and sequence so that at any stage of construction at least 2 lanes of carriageway including footpath remain open to traffic at all times.
For compliance of above, the scope of work shall include all related/associated temporary works including provision of temporary steel decking over cut and cover structures under roadways to allow uninterrupted flow of traffic and construction and maintenance of temporary diversion roads and services for traffic diversion as required.

7. Diversion of chartered utilities and support of chartered as well as unchartered utilities during construction including maintenance of diverted/supported chartered utilities. Besides utilities indicated in the tender drawing, all above ground utilities infringing with the work sites shall also be considered as charted utilities. The maintenance of diverted/supported utilities shall be from the start of construction till handing over it to the concerned utility owning agency. **Strengthening/protecting of underground charted as well as uncharted utilities with in the alignment of bored tunnel.**

8. Water proofing of all underground structures and roof of above ground structures as mentioned in section 10 of Outline construction specification.

9. Providing & Fixing Shear Connectors/key for Installation of the Rail Track in Ramp, Tunnel and Station Areas.

EMPLOYER'S REQUIREMENTS

Annexure 9 (page 1 of 3)

APPENDIX 2B

CONTRACT KEY DATES AND COMPLETION DATE			
Key Dates	**Weeks from LOA**	**Description of Stage**	**Liquidated Damage for not achieving the key dates**
Key Date 1	**4**	Submission of Detailed work programme with all activity for entire work.	0.01% of the fixed lump sum price quoted in schedule 'A' per week of delay for the key date.
Key Date 2	**6**	Submission of the copy of the agreement /LOA /Purchase order for purchase of TBMs or a proof of availability of TBM's ready for deployment or combination thereof. This period will include two weeks for design review for Engineer.	0.01% of the fixed lump sum price quoted in schedule 'A' per week of delay for the key date.
Key Date 3	**10**	Final submission of work programme incorporating all comments of Engineer, if any, including 2 weeks for review by Engineer.	0.01% of the fixed lump sum price quoted in schedule 'A' per week of delay for the key date.
Key Date 4	**12**	Preliminary Design submission & preliminary report of structures 30m on either side of edge of tunnels.	0.01% of the fixed lump sum price quoted in schedule 'A' per week of delay for the key date.
Key Date 5	**21**	Submission of definitive design & final detailed report of structures 30 m on either side of edge of Tunnels & Design Co-ordination Submission.	0.01% of the fixed lump sum price quoted in schedule 'A' per week of delay for the key date.
Key Date 6	**37**	Start of Initial drive for TBM No.–1	0.01% of the fixed lump sum price quoted in schedule 'A' per week of delay for the key date.
Key Date 7	**43**	Start of initial drive for TBM No-2	0.01% of the fixed lump sum price quoted in schedule 'A' per week of delay for the key date.
Key Date 8	**70**	Completion of Track way Basic Structure for designated contractors access- Track way including construction of cross passages,1st stage track bed concrete including drainage for 1st block section ~~between 1st pair of stations~~ (both up and down line)	0.01% of the fixed lump sum price quoted in schedule 'A' per week of delay for the key date.
Key Date 9	**75**	Completion of all subways to the stations to be constructed by Cut and Cover method as per location shown in tender drawings.	0.01% of the fixed lump sum price quoted in schedule 'A' per week of delay for the key date
Key Date 10	**78**	Completion of Civil work of ASS room for first ~~two~~ station and handing over to start E&M work.	0.01% of the fixed lump sum price quoted in schedule 'A' per week of delay for the key date.

Key Date 11	~~**79**~~ **92**	Completion of Civil work of ASS room for remaining stations and handing over to start E&M work.	0.01% of the fixed lump sum price quoted in schedule 'A' per week of delay for the key date.
Key Date 12.1	**80**	**Completion of Civil work of Ancillary buildings including its service galleries connecting to stations for two stations.**	**0.01% of the fixed lump sum price quoted in schedule 'A' per week of delay for the key date.**
Key Date 12.2	**90**	**Completion of Civil work of Ancillary buildings including its service galleries connecting to stations for balance station.**	**0.01% of the fixed lump sum price quoted in schedule 'A' per week of delay for the key date.**
Key Date 12.3	**104**	**Under-croft, Cable duct, cable and other service gallery at all stations and Handing-over to start E&M/ECS-TVS work including Cable/ Pipe laying work.**	**0.01% of the fixed lump sum price quoted in schedule 'A' per week of delay for the key date.**
Key Date 13	**81**	Completion of Civil work of ECS room at first two stations and Handing-over to start TVS work including Cable/ Pipe laying work.	0.01% of the fixed lump sum price quoted in schedule 'A' per week of delay for the key date.
Key Date 14	~~**82**~~ **95**	Completion of Civil work of 1st TVF room at all stations and Handing-over to start TVS work including Cable/ Pipe laying work.	0.01% of the fixed lump sum price quoted in schedule 'A' per week of delay for the key date.
Key Date 15	**83**	Completion of civil structure fit for installation (as per required level of finish of System Contractors) of all lifts & escalators from platform to concourse at all stations and Handing-over with marking of Final Finish Floor Level near to lift and Escalators as per the approved GADs to System Contractors.	0.01% of the fixed lump sum price quoted in schedule 'A' per week of delay for the key date.
Key Date 16	**85**	Completion of Civil work of balance ECS rooms at all stations and Handing-over to start ECS work including Cable/ Pipe laying work.	0.01% of the fixed lump sum price quoted in schedule 'A' per week of delay for the key date.
Key Date 17	~~**85**~~ **100**	Completion of civil work of 2nd TVF room at all stations and Handing-over to start TVS work including Cable/ Pipe laying work.	0.01% of the fixed lump sum price quoted in schedule 'A' per week of delay for the key date.
Key Date 18	**85**	Completion of station Structure fit for installation (as per required level of finish of System Contractors) of **1st** Lift and **1st** Escalator from concourse to ground for all stations and Handing-over with marking of Final Finish Floor Level near to Lift & escalator as per the approved GADs to System Contractors.	0.01% of the fixed lump sum price quoted in schedule 'A' per week of delay for the key date.
Key Date 19	**90**	Completion of Civil work of TER, SCR, SER, UPS, GSM, CDMA and all other operational rooms at all stations and Handing-over as per the level of finish required by System Contractors.	0.01% of the fixed lump sum price quoted in schedule 'A' per week of delay for the key date.
Key Date 20	**96**	Completion of Civil work of 1st EFO, TOM and AFC for all stations and Handing-over as per the level of finish required by System Contractors.	0.01% of the fixed lump sum price quoted in schedule 'A' per week of delay for the key date.

Key Date 21	~~99~~ **105**	Completion of Track way Basic Structure for designated contractors access- Track way including construction of cross passages,1st stage track bed concrete including drainage for entire section including all stations (both up and down line)	0.01% of the fixed lump sum price quoted in schedule 'A' per week of delay for the key date.
Key Date 22	**100**	Completion of civil Work of 2nd EFO, TOM and AFC for all stations and Handing-over as per the level of finish required by System Contractors.	0.01% of the fixed lump sum price quoted in schedule 'A' per week of delay for the key date.
Key Date 23	**108**	Completion of station Structure for designated contractor for installation (as per required level of finish of System Contractors) all other Lifts and Escalators from concourse to ground at all stations and Handing-over with marking of Final Finish Floor Level near to Lift & escalator as per the approved GADs to System Contractors.	0.01% of the fixed lump sum price quoted in schedule 'A' per week of delay for the key date.
Key Date 24	**116**	Completion of Entire Works Including finishing and Plumbing etc. as per the contract and all relevant works for the testing & commission of the sections at all stations.	0.01% of the fixed lump sum price quoted in schedule 'A' per week of delay for the key date relating to taking over on the completion of the entire works.
~~Key Date 25~~	~~**124**~~	~~Integrated testing and handed over and Peak Season Performance Testing & final system adjustment. Providing the Clearance Certificate from all Civil Agencies e.g. Fire Department, etc.~~	~~0.01% of the fixed lump sum price quoted in schedule 'D' per week of delay for the key date.~~
Key Date ~~26~~ **25**	**130**	Completion of all other outstanding works like reinstatements etc. that does not affect the testing and commissioning of the section.	0.01% of the fixed lump sum price quoted in schedule 'A' per week of delay for the key date relating to taking over on the completion of the entire works.

Note-

1- For each room or area, the contractor shall finalize and signed-off DID (Detail Design Interface Documents) with respective designated system contractors clearly mentioning the level of finishes required to be completed before the room /area is acceptable to the respective contractor (Taken-Over by Designated Contractor) and the key dates will be considered achieved only when the room /area is completed as per the requirement. The requirement finalized with the system contractor duly signed by them shall be submitted to Engineer at least two months before the respective Key Dates.

2- For part week, full week will be considered for this purpose.

3- In Key Dates pertaining to stations, the LD of 0.01% is for all stations which will be distributed equally for each station and the same shall be levied only for the station(s) where key date is not achieved.

4- LD for intermediate key dates: "In the event that the contractor achieves the final key date/original completion date as stipulated in the contract; thereof any penalties or liquidated damages which may be due to the employer by the contractor for the non-achievement of intermediate key dates may be waived-off at the sole discretion of the employer's representative."

OUTLINE DESIGN SPECIFICATIONS

GEOTECHNICAL, FOUNDATIONS, STATIONS, RAMP AND TUNNEL WORKS

Section 2.1 – GENERAL, STANDARDS AND CODES

2.1.1 Purpose and Scope

The purpose of this section of these Design Criteria is to establish the minimum requirements for geotechnical site investigations, studies, analyses, and preparation of geotechnical reports and the design recommendations for earthworks, foundations, structures, and substructure design, and the design for bored and cut and cover tunnels for the ~~Agra~~ **Kanpur** Metro.

"Geotechnical works" shall mean foundations, earthworks, deep excavations, slopes, embankments and earth retaining structures.

The Contractor shall be responsible for determining for his design purposes the Geology and the Geotechnical parameters of the sub-surface strata along the route.

The Employer will make available to the Contractor, for information only, the Geotechnical Investigation Report prepared by others. The accuracy or reliability of these reports supplied by the Employer or Engineer in connection with the contract is not warranted. These shall be supplemented as necessary by additional boreholes as required by the Contractor.

2.1.2 Codes, Standards, and Regulations

The principal standards listed below shall be complied with, as amended by these Criteria.

The version of the standards, codes, and regulations shall be the latest version and with latest amendments.

Indian Standards

SP 36 (Part 1)	:	Compendium of Indian Standards on Soil Engineering (Laboratory Testing)

Notes :-

1) Load Combination 4 will be used in checking temporary works proposals and checking the structure during temporary construction stages. The imposed load is the construction- imposed load.
2) For checking structures at the extreme water levels, the reduced partial factors of safety for water loads are to be 1.1.
3) Structural steel design load combinations and partial factors of safety for the design of structural steelwork are to be in accordance with IS 800-code of practice for the structural use of steel work.
4) Earthquake loads are reversible.
5) 50 % imposed load is to be used in line with the building mass calculated for seismic loads in load case ~~2 &~~ 3.
6) Creep, shrinkage, temperature and differential settlement are not considered in combination with the lateral loads at ultimate limit state. Creep and shrinkage effects will usually be minor for building type structures, no specific calculation will be necessary for ultimate limit state.
7) (**) For those structural members which are load bearing during the construction stage and subsequently form part of the permanent Works, the serviceability Limit State (SLS) checks shall be carried out both for "Construction" and "Service/optional" stages.

Load Factor for SLS Case

Load Combination	Dead Load	Imposed Load	Ground & Water Loads
DL + IL	1.0	1.0	1.0
DL + EQ	1.0	-	-
DL + IL + EQ	1.0	1.0	1.0

2.7.6 Flotation

For flotation check, the water table is assumed to coincide with the Ground level.

Where the bored tunnels are relatively shallow, they shall be checked for the possibility of flotation due to differential water pressure at representative typical locations.

The Contractor shall include in the design of the bored tunnel structures suitable methods for countering the uplift due to displaced water

The Contractor shall include in the design of the bored tunnel structures suitable methods for countering the uplift due to displaced water

2.7.7 Heave and Settlement

All tunnel designs shall be checked against flotation and heave in accordance with the methods specified above. Wherever these checks indicate a critical case the Contractor, at shall carry out a more rigorous analysis. Such analysis shall clearly show the factor of safety achieved by the design and shall be to the consent of the Engineer.

2.7.8 Tunnel Lining

The Contractor shall take into account, inter alia, the following when considering the design of linings:

(a) A segment shall be considered and designed as a short column (as per IS 456 provisions for columns) ~~subjected to axial load with a load factor of 1.4 applied to all loads (including seismic load).~~ The design of the segments shall be adequate for all temporary loads during stacking, lifting, erection and impact.

(b) The width of segments shall suit the method of construction and shall not be so large that part shoving of the shield becomes a general necessity.

(c) The width of segments shall be consistent with the capacity of the circle bolting arrangements to withstand the shear forces induced in linings built with staggered joints.

(d) The lengths of segments shall be chosen with regard to bending stresses during handling and erection and the long-term stresses due to deflection and thrust. In the design for handling and erection a safety factor of 5.0 shall be applied to the self-weight of the segment combined with zero axial load.

(e) Opening of longitudinal joints.

(f) The design of linings shall include suitable taper rings in order to negotiate the alignment curvature and to correct for line and level during construction with the minimum use of circumferential joint packers consistent with attaining the required degree of water tightness of the tunnels; see Subsection 2.7.18 below.

(g) At least two different methods shall be used for design values as one method will serve as independent check on other.

(h) Drilling for fixing at pre-determined points on the lining may be permitted

2.7.10 Tunnel Diameter

Designed internal diameter of the finished tunnel for single track shall be between 5700mm to 5800mm with as built tolerance mentioned in Section 9 (Tunneling), clause 9.5.1 (Tunnel Linings) para 12.0 (As Built Tolerances) of Volume 5 (Outline Construction Specification)

2.7.11 Segment Details Gasket grooves

Gasket grooves shall be provided around all joint faces of each segment and key in accordance with the dimensions as approved by the engineer in charge. The design shall incorporate sealing gaskets in the segmental design.

Concrete cover

The design shall incorporate ~~two sealing gaskets in the segment design~~ **composite extruded strips comprising a gasket of hydrophilic type (minimum width 20mm) and gasket of elastomeric type shall be provided at all faces between segments to provide a seal against ingress of ground water.** ~~Materials for sealing gaskets shall be one gasket of hydrophilic material and one gasket of elastomeric type.~~ Materials shall have acceptable fire performance for use on an underground railway. Notwithstanding the above limits on groundwater leakage rates, the design shall aim to ensure that no loss of ground occurs through any part of the structure.

2.7.15 Temporary Access or Retrieval Shafts

The principal method of access for erection, launching and retrieval of tunneling is expected to be within the ends of station box structures. If provision cannot be made in the structural design of the station works or the construction programme the Contractor shall design alternative temporary access shafts outside the permanent wall of the station and be responsible for obtaining all appropriate approvals from the relevant authorities and the Engineer's consent prior to commencement of the works.

Temporary access provisions within the station box or outside the permanent wall of the station shall be designed and constructed to ensure the integrity of the temporary works and permanent structure at all stages of the work and the water tightness of the completed station and tunnels.

The scope of work shall include, inter alia, the following:

(a) Any additional site investigation considered necessary by the Contractor to design and execute the work;
(b) Topographic, utility and building condition survey;
(c) Analysis of potential ground movement effects and the design of measures to control such effects;
(d) Structural design of the shaft to meet the requirements in the Specification for cut and cover design.

The Contractor shall ensure the compatibility of permanent and temporary Works designs and construction schedules and that construction interfaces are resolved.

Temporary access shafts shall be backfilled with approved material in accordance with the Outline Construction Specifications. Temporary works shall be removed to 2m

The design and detailing shall be such that the number of construction joints will be as few as practicable and shall minimize leakage.

2.8.10 Slab to Wall Connections

For top-down construction in particular, attention shall be paid to the practicalities of the design and detailing of the slab to wall connections and the means by which the integrity of the construction joints at these connections will be assured.

~~Couplers shall be checked for 100mm cover (vertical tolerance +/- 50mm and cover in slab 45/50mm) including tolerance.~~

2.8.11 Connections between Bored Tunnels / Cut and Cover Structures

Where bored tunnels are connected to cut and cover structures, the connection shall be designed so that completion of the joint is carried out by the contractor for the cut and cover structure. Design of the joint shall consider the possibility of differential movement, either during backfilling or subsequently. Unless it can be shown that differential movement of the bored tunnel and cut and cover structures will be sufficiently small not to cause overstressing with a rigid joint, the joint shall be designed to permit an appropriate degree of rotational movement. Particular attention shall be paid to the waterproofing detail, to ensure that the water tightness of the joint is not inferior to the standard joint between precast tunnel segments.

2.8.12 Base stability

The Contractor shall include in design adequate precautions against base heave in the clayey silts during construction. The stability of the bottom of the excavation shall be checked in accordance with an acceptable method of analysis. A surcharge of 20 kN/m^2 shall be allowed for, applied at ground level to the ground surrounding the excavation.

The Contractor shall allow in his design adequate precautions against piping and base failure.

The Contractor shall show in his calculations the contribution made to the base stability of the excavation by his proposed method of construction and shall state the factor(s) of safety used in the design. The factor(s) of safety shall relate to the method of construction and to the particular location of the Works and

11.2.2 Measurements

It shall be measured in cubic meters with Length of the finished work (for specified width and height of stone) shall be measured in running metre along the edge of the road correct to a cm.

11.2.3 Rate

The rate shall include the cost of all the materials and labour involved in all the operations described above.

12 VENDOR LIST

12.1 Makes of Materials/Products

All materials and products used in the work will conform to the relevant standards/specifications and will be of approved make and design. A list of manufacturers/ vendors is given in Table 12-1 herein below for guidance. The approval of a manufacturer/ vendor/ will be given only after review of the sample/ specimen by the Engineer. The complete system and installation will also be in conformity with the "Applicable Codes, Standards and Publications".

List of Approved Makes for Products, Materials & specialist agencies is given below. Other equivalent manufacturers may be considered with prior approval; however, the decision of the Engineer will be final.

12.2 Table12-1: Products and Manufacture's List

VENDOR LIST		
S.NO	**Detail of Materials / Products**	**Manufacturer's Name**
1	Plywood (Low Flame Spread Type)	Duroply (Green marked BWR Grade of Sarda plywood), Century Plywood, Green Plywood, Kitply, Virgo lam, Merino, Swastik Plywood
2	Blockboard (Low Flame Spread Type)	Duroboard (Green Marked BWR Grade of Sarda Plywood), Century Plywood, Green Plywood , Kitply, Virgo Ply, Merino
3	Laminate	Decolam , Greenlam, Formica , Sandek , Bakelite , Merino , Virgo Lam
4	Flush Doors	Kanchan Prima , Swastik , Kuttys , Diamond flush Door , Raveela, Alpro Panels
5	Compact Laminated Doors	Merino , Greenlam asia, Green Ply, Fundermax

	and Laminates, High Pressure Laminates	
6	Pressed Steel Door & Frames	Agew , San-Harvic, Raymus,
7	Fire Door	Signum, Shakti Harmann, Godrej, Radiant, Navair International, Sehgal & Sehgal Industries, GMP
8	Door Hardware	Dorma , Hafele , Dorset, Dline , HARDWYN, Ozone , Hettich
9	Gypsum Board for Gypboard dropped ceiling	Saint Gobain Gyproc , Lafarge Boral Gypsum
10	Calcium Silicate Board	Promate , Hilux , Acon Pan, Aerolite
11	Metal (MS/SS/Aluminium) False Celling	Durlum , Hunter Douglas, Armstrong , Canon , Fameline
12	Adhesive , Adhesives for Tiles and Mosaics , Stone adhesive , Glass mosaic adhesive	Pidilite, Araldite , Toyo Ferrous Crete , Unistone, Somany ezy grout , MYK laticrete, Mapei, MC Bauchemie (India) Private Ltd.
13	Polysulphide Sealants	CICO , Pidilite Industries Ltd., BASF, FOSROC, STP, SWC, SIKA, Don Construction Chemicals India Ltd
14	Silicone Sealants and Concrete Sealer	G.E. Bayer Silicone/ Dow Corning/ Watson Bowman Acme Corporation, Sika, Mccoy soudal
15	Silicon Water Repellent Solution	G.E. Bayer Silicone , Metroark, STP ltd , Nisiwa-SH of MC- Bauchemie (India), Techrepel of Choksy Chemicals
16	Tile Joint Filler	Bal Adhesives & Grouts, Roff Construction Chemicals , Winsil 20, Silicon Sealant of GE Bayer Silicon, "Zentrival FM" of MC-Bauchemie (India) , Laticrete , Toyo Ferrous Crete , Mapei, Unistone super grout
17	Aluminium Sections	Hindustan Aluminium , Jindal , Bhoruka , Bharat aluminium, Vedanta BALCO, Hindalco
18	Float Glass/ Toughened Glass / Insulating Glass/ Laminated Glass /FIRE Rated Glass	Float Glass India, Asahi Float, Modiguard, Glaverbel, Saint Gobain, Sejal.

19	Powder Coatings	Berger / Nerocoat / Jenson & Nicholson
20	Raised (Access)Floor with assembly system	Hewetson /United Access Floors United Insulation/ Acon Pan/ Unifloor, Uniflair, Armstrong
21	Interlock Paving and chequered Tile	Unistone, Nimco Prefab, Hindustan Tiles, Terra Fima, Nitco, Ultratile, Oracle Granito.
22	Ceramic Tiles & Porcelain tiles	Kajaria , Bell ceramics,Orient Bell, Johnson, Nitco, Somany, Orient, Regency Ceramics, Euro , Kenzai Ceramic, Hindustan Tiles, Oasis
23	Vitrified Tiles & Heavy duty tiles	Kajaria World, Restiile Ceramics, Marbo Granit of Bell, Orient Bell, Granito Ceramica, Orient, Asian Tiles, EON Group, Somany, H&R Jhonson, Oracle Granito, Oasis, Nitco
24	Mosaic Tiles	Palladio, Bisazza, Siches
25	Yellow Tectile Tiles	Palican, Unistone Products
26	Decorative Wall Cladding Tiles	Hindustan Tiles, Super Tiles & Marble, Terra Firma Concrete & Marbles, Century Tiles, Unitile, Unistone
27	GRC Architectural Decorative Products like Grass grid pavers , drain covers , GRC pavers , GRC tiles , GRC brackets, GRC decorative columns, GRC planters, GRC noise barriers, GRC jali	Terra Firma Concrete & Marbles , Unistone , Hindustan Tiles, Nimco Prefab
28	MS Tubes	Tata metal, Loyd Metal & Engineering , NSL , Swastik Pipes, JSW ISPAT, APL Apollo(formerly known as Bihar Tubes)
29	Modified Bituminous Membrane roof water proofing	Super Thermolay, Polylex of STP, “Lotus-3” of the Structural Waterproofing, FORSOC, SIKA, Kryton Buildmat Cc, MBT.
30	Emulsion Paints	ICI Dulux, Acro Paints, Asian, Berger, Nerolac, Jenson & Nicholson, Shalimar paints.
31	Synthetic Enamel	ICI Dulux, Berger, Asian, Nerolac, Jenson & Nicholson, Acro Paints, Shalimar paints.

32	Textured Paints	Spectrum/Unitile/ Heritage, Dulux,Asian, Burger, Ultratech
33	Polyurethane Paint	MRF/NEROLAC
34	Wall care putty	J.K White Cement Works, Birla putty , unistone, Shalimar , gyproc wall putty (saint gobain)
35	Aluminium Composite panel	Alucobond, Alpolic, Alstone, AluDecor, Alstrong, Eurobond
36	Frameless Glass Partition Fixtures	Droma, Hafele, Doorset, Dline, Insta Hardware, HARDWYN
37	Epoxy	FOSROC, SIKA, QUALCRETE, Araldite, BASF, Kunal Con Chem, CHRYSO, DON Chemicals, STP, Cleantech SA, TAM, CICO, MC-Bauchemie, Pinnacle, Fibrex.
38	Stone cladding champs	Hilti, BOSCH, Fischer, Canon, WURTH
39	Anchor Fasteners	Hilti, BOSCH, Fischer, Canon, Pooja Forgo, TRIXEL, RAWLPLUG, WURTH
40	Sanitary and bath fitings & Fixtures	Jaquar , Kingston , Marc, Kohler, Rocca, Hindware, Parryware
41	Fire resistant paints	Akzo , Noble , PPG , Jotun
42	Construction & Water proofing chemicals, integral water proofing compounds / methods, chloride free plasticiser cum waterproofing compound, floor hardners, silicon impregnation.	Kryton Buildmat, BASF, Chryso, DON, Xypex, Normet India, MYK Schomburg, Penetron, MC Bauchemie (India) Private Ltd. (for Integral Crystalline waterproofing), MAPEI, Asian, M/s Sunanda Speciality Coating Pvt. Ltd.
43	Cement	Ultra Tech, ACC , Grasim, Gujrat Ambuja , JK Laxmi, Dalmia, Birla Gold
44	Reinforcement Bars	Sail, RINL, Tata, JSW, JSPL
45	Admixtures	FOSROC, MBT, MC Beucheme, Sika, Apex, Pidlite, Polygon, CHRYSO, Choksey, STP, MYK Schomburg, BASF, MAPEI, Kunal Conchem, H&R Jhonson, Asian Lab, CICO, Fairmate, Pinnacle

		Ultracon, Rheoplast, Normet India, Ado Additives Technologies Ltd., Don Construction Chemicals India Ltd,CAC
46	Bipolar admixture	M/s Sunanda Specialility Coating Pvt. Ltd.
47	Structural Steel	TATA, SAIL, ESSAR, Jindal steel and power, JSW, KL steel, M/s Rimjhim Stainless Ltd.
48	Welding Electrodes	Advani-Oerilikon, D&H Welding Electrodes, Modi Arc, Maruti weld, Modi Hitech India Ltd.
49	Form work Release Agent	Fosroc, MBT Ultracon, MC Beucheme, CICO, CHRYSO, Choksey, BASF, Ado Additives Technologies Ltd., Don Construction Chemicals India Ltd., M/s Image Marketers.
50	Corrugated Aluminium perforated panel cladding	Jindal, Canon
51	S.S. works	Ozone, JSL,(Jindal Steel), Fabrinox
52	Ready Mix Concrete(RMC)	ACC, Unitech, Grasim, Ultratech
53	Stainless steel	Jindal, Sail, M/s Rimjhim Stainless Ltd.
54	Horizontal tie bars/shear bars	BB bars system , Dextra
55	Hollow section pipes	Surya pipes, Hi-tech pipes, JSW, JSPL, APL Apollo(formerly known as Bihar Tubes), M/s Rmjhim India Ltd.
56	Drainage pipes	Tirupati Plastomatics, Duraline, REX.
57	Non shrink grout	Fosroc chemical (India), SIKA, BASF, MBT, CHRYSO, CHOKSEY, CICO, STP, Ado Additives Technologies Ltd., Don Construction Chemicals India Ltd., MC Bauchemie (India) Private Ltd.
58	Water stopper/Bar	Kanta Rubber, Maruti, Duron
59	Liquid Polymer membrane water proofing	BASF, PIDILITE, Cico, Normet India, MC Bauchemie (India) Private Ltd.

60	Polycarbonate Sheet	Lexan Sabic innovative plastic, DANPALON, BAYER
61	Metal Roof	Tracdek (interarch Building Products), Tata Bluescope, Bhusan Steel
62	Cement/Epoxy Terrazo Flooring	NITCO, NEOCRETE TECH PVT LTD
63	Glass Fiber Reinforced Gypsum	FORMGLASS
64	Rolling Shutters	Gandhi, Avians
65	PVC floor/Vinyl Tile	Armstrong, Tarkett, Gerfloor
66	Solid Surface / Acrylic	Corian/Dupont, Staron/Samsung
67	Galvalume	Tata Bluescope, JSW steel, Bhusan Steel
68	Aluminium alloy roofing	Hindalco (everlast)
69	UPVC pipes & fittings	Finolex, Supreme, Polypack, Jindal Plast (India)
70	CPVC pipes & fittings	Flowguard-Astral, Ajay ,Ashirwad
71	Tunnel segment bolts, accessories with fixtures	Canon Fasteners,Datwyler, Fischer
72	Expansion Joints	Kantaflex, Kanta, Maruti Techno, MYK Schomburg, JK Prestressing
73	Pile Integrity Testing agency	CBRI, FUGRO-KND, Pile Dynamic, AIMIL, Geo dynamic, CEG Test House, EMC India, Mythcon, ATL AVANTECH, Soil Engineering Consultants.
74	Pre-stressing Strand(LRPC)	TATA SSL Ltd., USHA Martin
75	Pot/Elastomeric Bearings	Prequalified Manufacturers as per RDSO's latest approved list or as approved by employer
76	HDPE Sheathing	Rex Polyextrusion, Gwalior Polypipes Ltd., Kataria Sheathing, M/s Tirupati, M/s Dynamic Prestress
77	Prestressing System	Freyssinet, BBR, VSL, Dynamic, Killick Nixon, Tensaccai (India Ltd.), JK Prestressing, Usha

		Martin, Posten, VSIL
78	Reinforcement couplers	Dextra, Kridhan, JB Engg., Unitech, Moment
79	Acrylic Textured Coating	Spectrum, Renova, Wallz, Surfa Nova, Asian Paints, MC Bauchemie (India) Private Ltd.
80	Bonding Coat	CICO, FOSROC, BASF, SWC, TAM, DON, CHRYSO, MYK Schomburg, MC Bauchemie (India) Private Ltd.
81	Micro Silica	Sika, Elkem, FOSROC, MAPEI, Corniche, Star Silica, TAM, CALIPAR, CICO, Rockfit, Alcofine
82	Curing Compound	OSROC, TAM, STP, SWC, CICO, DON, CHRYSO, Ado Additives Technologies Ltd., Don Construction Chemicals India Ltd., MC Bauchemie (India) Private Ltd, MAPEI, Ultracon
83	Fly Ash	Thermal Plants, Ashcrete, Ultra Pozz, Star Pozz
84	Anti-carbonation Paint	Fosroc, Asian, M/s Sunanda Speciality Coatings Pvt. Ltd.
85	Polycarbonate Sheet	LEXAM
86	Lacquered Glass	Saint Gobain, AIS Décor,
87	SS Tactile & Steel Composite Panel (SCP)	Cannon
88	Cold draw tubes and pipes(ERW pipe/Galvanized pipe)	M/s Good luck India Ltd

Annexure-17

UTTAR PRADESH METRO RAIL CORPORATION LIMITED

Design and Construction of TBM Tunnel, Cut & Cover Tunnel, ramp after Double Pullia, ramps in Agriculture Depot for main line and depot connections and three underground metro stations (viz. Rawatpur, Kakadeo and Double Pullia) including Architectural finishes etc. on Corridor-2 of Kanpur MRTS Project at Kanpur, Uttar Pradesh, India.

CONTRACT NO: KNPCC-11

TENDER DOCUMENTS

VOLUME 7

BILL OF QUANTITIES / PRICING DOCUMENT

UTTAR PRADESH METRO RAIL CORPORATION LTD.

Administrative Building, Vipin Khand, Gomti Nagar

Near Dr.Bhimrao Ambedkar Samajik Parivartan Sthal,

Lucknow-226010, Uttar Pradesh,

India

TABLE OF CONTENTS FOR SCHEDULE 'A', 'B' & 'C'

BILL OF QUANTITIES

PREAMBLE

1) The Bill of Quantities shall be read in conjunction with NIT, Instruction to tenderers and all the tender documents/drawings as listed in clause B1.1 of Instructions to tenderers. Schedule "A" of Bills of Quantities/Pricing Document comprises scope under Lump Sum Contract for Civil Works (including Tunnel, Cut & Cover, Ramps and Underground Stations etc.) Schedule "B"& "C" comprise of Provisional Sums.Detailed scope of works is given as per Employer's Requirement-Volume 3. The offer must be without considering deviation in contract conditions.

2) Schedule–'A' of Bill of Quantities comprise the scope of work mentioned in clause 2.1 of Employer's Requirement (Functional).

3) Schedule–'B' comprises Annexure 'B1', 'B2', 'B3' and 'B4'. Annexure 'B1' for works related to diversion of uncharted utilities (Civil, Electrical, and Telecom etc.,) and other general items like trees cutting/transplantation etc. Tree cutting/transplantation items shall be carried out with the prior approval of forest authorities. Annexure 'B2' for works related to Finishing of the stations including false ceiling and related items. Annexure 'B3' for works related to Water Supply and Sewage System for the stations. Annexure 'B4' for works related to fire doors and related items. The work has to be carried out as per Schedule of items given in the Annexure to Schedule – 'B' (B1 to B4). The tenderer has to quote the percentage above/below or at par on basic amount given in Schedule B1 to B4 for items to be executed against this head. The payment against this head will be made on the basis of quantities executed, measured & certified. Under this Schedule the Contractor has to undertake Items or work NOT covered in Schedule "A"&"C" as per the requirements and directions of the Engineer.

4) Schedule-'C' comprises of percentage rate Bill of Quantities for works under DSR – 2021 for Civil, Finishing works, Water Supply& Sewerage System, Landscaping near stations, CPWD DSR – 2022 for Electrical works and CPWD DSR – 2020 for Horticulture Work. Under this schedule the contractor has to do all works which are not covered in Schedule 'A', 'B' & 'C' or any other work as per site requirements and as per the direction of the Engineer. The tenderer has to quote the percentage above/below or at par on the basic amounts (viz. C1.1, C1.2, C1.3, C2& C3) given in the Schedule. The payment against this head will be made on the basis of quantities executed, measured & certified.

5) The amount quoted for the Schedule–'A', 'B'& 'C' of Bill of Quantities are for completed and finished items of work and complete in all respects, inclusive of all false-work and formwork (shuttering). It will be deemed to include all Plant, Labour, Supervision, Materials, Transport, all Temporary Works, Erection, Maintenance, Contractor's Profit and Establishment/ Overheads, together with preparation of Design & Drawings, all General Risks, Insurance Liabilities, Compliance of Labour Laws and obligations set out or implied in the Contract.

6) If the tenderer fails to quote rates against any Schedule, the tender will be treated as incomplete and non-responsive and shall be rejected.

7) MINOR DEVIATION- Price of Minor Deviation if any as submitted in Annexure 3 of ITT shall be submitted in Annexure-3A of BOQ. This price should neither be added nor subtracted in the offer of tenderer for evaluation. This shall be dealt with as per E 5.6 of ITT.

8) General directions and descriptions of work and materials are not necessarily repeated, nor summarized in the Bill of Quantities/Pricing Document. Reference to the relevant sections of the contract documentation shall be made before entering prices against the Bill of Quantities/Pricing Document.

9) Errors will be corrected by the employer for any arithmetic errors in computation or summation as indicated in the Instruction to Tenderers.

10) The tenderer shall quote amount in all Schedules in Indian Rupees or/and in any freely convertible international trading currency or in a combination of both or as specified for schedule -'A' and in Indian Rupees only for Schedule 'B'& Schedule -'C'. All the rates and amounts should be filled both in figures and words. Selling rate of exchange at the close of business of the State Bank of India on the day twenty-eight days before the latest date of Tender Submittal shall be applicable.

11) All columns in the Bill of Quantities shall be filled in indelible ink or type written and the total tender amount shown in the bottom. The person authorized to sign on behalf of the Tenderer shall sign in full with company seal and date at the bottom of all pages of Bill of Quantities.

12) The payments to contractor will generally be made on monthly basis for actual work done for the items covered in Schedule- 'B'& Schedule – 'C'and on prorata basis of percentage work actually completed in different items of Schedule – 'A'.

13) Demolition of existing structures shall be carried out without making any damages to adjacent structures, utilities and with all safety measures.

14) LabourCess as applicable will be deducted from every RA bill till completion of work.

15) **Procedures for Calculation of GST in CPWD DSR items is given as under: -**

Contractor shall quote rate above/at par/below CPWD DSR after excluding GST component as per corresponding CPWD DAR coefficient for GST

For Example:

CPWD DSR 2021 rate for item no, 2.3.1=₹543.40
GST component as DAR =14.05%
If bidder quotes rate as 5% below
The calculation for quoted rate shall be as under:

DSR rate excluding GST=DSR Rate/(1+GST Component in DAR)
=543.40/(1+0.1405)
=476.46 (rounded up to two decimal point)
Rate quoted by the contractor=5% below the above derived rate i.e. ₹476.46
=476.46-476.46x0.05
=476.46-23.82
= ₹452.64

Annexure -3A

PROFORMA FOR STATEMENT OF MINOR DEVIATIONS

(Refer Clause C 15.1 of IIT)

1.The following are the particulars of minor deviations from the requirements of the tender Document :

Sr. No.	Clause	Deviations	Price adjustment for withdrawal of each deviation/s

1. The Tenderer ShaII indicate price adjustment against each deviation in Annexure-3A of BOQ. This price is the price which the tenderer shall reduce from his tende price if deviation (s) is/are accepted by the Employer.
2. Where there is no deviation, the statement should be returned duly signed witn an endorsement indicating "No Deviations" , In Case. Performa of deviations is not submittedor submitted as blank. if will be construed that the tenderer has not proposed any deviations from tender documents.
3. If the tenderer proposes deviations in tender documents and/or any other terms and conditions of the tender. other than in this *A*nnexure. it will have no effect.

Signature of Authorized Signatory
On behalf of Tenderer

SCHEDULE – 'A'
Price of Lump-sum portion of the Work

The tenderer may quote his offer either in Indian Rupees OR in any freely convertible International Trading Currency OR in a combination of both in excel format as provided in financial package.

Note: (i) Interim 'On Account' stage payment shall be made as per Annexures to Schedule A. All the percentage of payments are on the basis of Lump sum amount quoted above in Schedule A.

(ii) Tenders will be compared in equivalent Indian Rupees only. This will be achieved by converting the international currency into Indian Rupees as per clause E5.3 of Instructions to Tenderer (ITT).

iii) For the purpose of payment, the proportion of the cost of General Item (A1), Under Ground Stations (A2), Tunnel by TBM (A3), Tunnel by Cut & Cover method (A4), Underground Ramp (A5), Elevated Ramp (A6) and PEB Work (A7) would be considered as 5%,~~47.60%~~ **43.7%**, ~~34%~~ **37.3%**, ~~7%~~ **7.5%**, 4% ,~~2%~~ **2.4%** and~~0.4%~~**0.1%** respectively. Thus, if A is the total cost of lump-sum portion then,

A1 = 0.05A
A2 = ~~0.476A~~ **0.437A**
A3 = ~~0.34A~~ **0.373A**
A4 = ~~0.07A~~ **0.075A**
A5 = 0.04A
A6= ~~0.02A~~ **0.024A**
& A7= ~~0.004A~~ **0.001A**

Signature of AuthorizedSignatory
On behalf of Tenderer

Annexure to Schedule 'A'

Schedule of On Account Payment

Sub-Head:1-A1-General

Item No.	Item of Payment	Stage Payment	Percentage payable on A1 component of Lump sum Portion Quoted
1	Soil investigation, Building Condition survey and approval of Instrumentation & Monitoring scheme, construction of contractors site office.		10%
2	Submission and approval of Preliminary, Definitive and Final designs.		15%
3	Commissioning of Batching Plant and site laboratory, submission of quality, safety, environment and public health (SHE) manuals, traffic diversion schemes duly approved by the Engineer& establishment of PMIS.		10%
4	Submission of Quarterly Audit Reports of Quality, Safety and Environment and Public Health (SHE), Action Taken on non-compliance of non-conformance report and its closure during last month and submission of instrumentation data [To be paid quarterly on pro-rata basis for submission of quarterly audit reports and balance amount paid in the final bill]		10%
5	Submission of Bi-Monthly Progress Reports of complet project using Drone based Photogrammetry or RGB Lidar and Geo- Tagged High-Resolution Videography as per instructions of the engineer in charge including: 1. Videography and Photos 2. Ortho Image with 3cm GSD 3. DSM 4. Point Cloud (*.LAS format) of the entire stretch including the actual progress of the structures and features which can be taken as input to measure changes in dimension etc.		1%
6	Deployment of Traffic Marshals and barricading of all work areas including Construction Depot, Batching Plant, Casting Yard etc. (inclusive of erection& Maintenance of barricades)		10%
7	Construction and Maintenance of temporary diversionroads and services for traffic diversion including decking arrangement as required		10%
8	Commissioning of Tunnel Segment, Casting Yard (Payment will be released only after first tunnel segment is cast and approved by the Engineer)		34%
	Total		**100%**

Note: - Further bifurcation to be submitted by the contractor on award of the work and as per approved by Engineer.

Signature of Authorized Signatory
On behalf of Tenderer

Annexure to Schedule 'A'

Schedule of On Account Payment

Sub-Head: 2–A2-Construction of Underground Stations

Item No.	Item of Payment	Stage Payment	Percentage payable on A2 component of Lump sum Portion Quoted
1	Construction of Sheet Pile/Soldier Pile/ diaphragm wall complete (Based on proportional progress)		12.0%
	(A) Rawatpur	3.5%	
	(B) Kakadeo	4.25%	
	(C) Double Pullia	4.25%	
2.	Excavation in all kinds of soil/rock including strut / waler supports/Rock Bolt/Rock Anchor including dewatering etc. As required (measurement to be done in volume of earthwork excavated)		8%
	(A) Rawatpur	2.5%	
	(B) Kakadeo	2.75%	
	(C) Double Pullia	2.75%	
3.	Construction of Base Slab including earth mats (Based on proportional progress).		14%
	(A) Rawatpur	4.0%	
	(B) Kakadeo	5.0%	
	(C) Double Pullia	5.0%	
4.	Construction of walls, beams & columns, other RCC works like platform slab, under platform walls, columns, staircases, lift walls and CC block works up to concourse level (The mode of measurement will be as decided by the Engineer at site)		6%
	(A) Rawatpur	2%	
	(B) Kakadeo	2%	
	(C) Double Pullia	2%	
5.	Construction of concourse slab (Based on proportional progress)		14%
	(A) Rawatpur(Mid Level)	4.0%	
	(B) Kakadeo	5.0%	
	(C) Double Pullia	5.0%	
	Construction of first stage concrete if required, cast in situ/precast OTE ducts above track complete (Based on proportional progress)**& Laying screed on base slab in under croft as per design.**		

6.	(A) Rawatpur	2.5%	8%
	(B) Kakadeo	2.75%	
	(C) Double Pullia	2.75%	
7.	Construction of walls, beams &columns, other RCC works and CC block works from concourse up to roof slab (Based on proportional progress)		8%
	(A) Rawatpur	2.5%	
	(B) Kakadeo	2.75%	
	(C) Double Pullia	2.75%	
8.	Construction of all roof slab including RCC work above roof slab including water proofing if any (Based on proportional progress)		12%
	(A) Rawatpur	3.5%	
	(B) Kakadeo	4.25%	
	(C) Double Pullia	4.25%	
9.	Construction of Entry/Exit structures including subways as required. (Based on proportional progress)		6%
	(A) Rawatpur(Including First floor slab)	2%	
	(B) Kakadeo	2%	
	(C) Double Pullia	2%	
10.	Construction of complete Ancillary building including interconnection with station.		6%
	(A) Rawatpur (Except First Floor Slan as in 9(A))	2%	
	(B) Kakadeo	2%	
	(C) Double Pullia	2%	
11.	Other balance works as per scope and specifications including site clearance and 100% area handed over, to be paid alongwith last on account bill.		6%
	(A) Rawatpur	2%	
	(B) Kakadeo	2%	
	(C) Double Pullia	2%	
	Total		**100%**

Signature of Authorized Signatory

On behalf of Tenderer

Annexure to Schedule 'A'

Schedule of On Account Payment

Sub-Head: 3– A3Construction of Tunnel-by-Tunnel Boring Machine.

Item No.	Item of Payment	Stage Payment	Percentage payable on A3 component of Lump sum Portion Quoted
1	Assembly of TBM at site		8%
	a) First TBM	4.0%	
	b) Second TBM	4.0%	
2	Construction of Tunnel		
A	Construction of Tunnel by shield TBM including erection of permanent lining segments, grouting as required and including all temporary services required like drainage, ventilation system etc. (payment shall be made in running meter on prorata for the portion in which lining segments have been erected)		79%
3.	Completion of balance work of tunnel e.g., secondary grouting as required, construction of drainage system, invert concrete below track plinth (Monthly payment shall be released based on proportional progress as decided by the Engineer)		6%
4.	Construction of Cross Passages as per the requirements of NBC 2016 including sump as required.		5%
5.	Construction of Galvanised Steel walkway in the tunnel		2%
	Total		**100%**

Signature of Authorized Signatory
On behalf of Tenderer

Annexure to Schedule 'A'

Schedule of On Account Payment

Sub-Head: 4–A4- Construction of Tunnel by Cut& Cover Method.

Item No.	Item of Payment	Stage Payment	Percentage payable on A4 component of Lump sum Portion Quoted
1	Construction of Sheet Pile/Soldier Pile/ diaphragm wall completed (Based on proportional progress)		14%
2.	Excavation in all kinds of soil/rock including strut / waler supports/Rock Bolt/Rock Anchor including dewatering etc. as required (measurement to be done in volume of earthwork excavated)		20%
3.	Construction of Base Slab (Based on proportional progress)		13%
4.	Construction of walls, beams.		13%
5.	Construction of Roof slab (Based on proportional progress)		13%
6.	Completion of balance work of cut and cover tunnel construction of drainage system, etc. (Monthly payment shall be released based on proportional progress as decided by the Engineer)		7%
7.	Construction of Galvanised Steel walkway in the tunnel		7%
8.	Construction of Road and Services including Back Filling,waterproofing all complete (Based on proportional progress).		13%
	Total		**100.0%**

Signature of Authorized Signatory
On behalf of Tenderer

Annexure to Schedule 'A'

Schedule of On Account Payment

Sub-Head:5–A5- Construction of Underground Ramp

Item No.	Item of Payment	Stage Payment	Percentage payable on A5 component of Lump sum Portion Quoted
1	Excavation in all kinds of soil/rock including strut / waler supports/Rock Bolt/Rock Anchor including dewatering etc. as required (measurement to be done in volume of earthwork excavated)		30%
2.	Construction of Base Slab (Based on proportional progress)		30%
3.	Construction of side walls (The mode of measurement will be as decided by the Engineer at site)		20%
4.	Completion of balance work of Ramps e.g., construction of drainage system, galvanised steel walkway etc. (Monthly payment shall be released based on proportional progress as decided by the Engineer)		20%
	TOTAL		**100%**

Signature of Authorized Signatory
On behalf of Tenderer

Annexure to Schedule 'A'

Schedule of On Account Payment

Sub-Head:6–A6- Construction of Elevated Ramp.

Item No.	Item of Payment	Stage Payment	Percentage payable on A6 component of Lump sum Portion Quoted
1	Piling work using Hydraulic Rig Machine (measurement to be done in volume of RCC)		30%
2.	Foundation work including plain/RCC Retaining wall (The mode of measurement will be as decided by the Engineer in Charge.)		30%
3.	Construction of deck slab (Based on proportional progress)		20%
4.	Completion of balance work of Ramps e.g., construction of drainage system, galvanised steel walkway etc. (Monthly payment shall be released based on proportional progress as decided by the Engineer)		20%
	TOTAL		**100%**

Signature of Authorized Signatory
On behalf of Tenderer

Annexure to Schedule 'A'

Schedule of On Account Payment

Sub-Head: 7–A7- PEB Work

Item No.	Item of Payment	Stage Payment	Percentage payable on A7 component of Lump sum Portion Quoted
1.0	Designing, providing, fabricating, transporting, erecting and securing in position prefabricated structural steel roof work for building complete as per specifications, approved shop drawings and / or as per Work under this item would generally cover all structural steel work for roof of station building, including roof portals, Purlins, runners gutter etc. in the station steel roof structure (but excluding down take pipes and sheeting on roof as per specification provided. (Mode of Measurement shall be section 12 of OCS)		75%
2.0.	Providing and fixing single skin **Hi-Rib (Crimp curved) profiled sheeting 1000-1020 mm cover width, 28-30 mm crests @200-250 mm c/c** manufactured out of 0.50 mm TCT (Total coated thickness) **Hi- tensile galvalume steel**, the sheets shall have wide pans with 2-3 nos. stiffening ribs for effective water shedding and special male/female ends with full return legs on side laps for purlins support and anti- capillary flute inside lap. The sheets shall leave. a hot-dip metallic coating of ZINC and Aluminium (150 gms/sq.m. zinc/alum. Coating mass total on both sides. AZ-150 as per AS 1397),330Mpa to 550Mpa yield stress, providing PVDF coating of approved colour of total thickness of 35 microns comprising of 20 microns' exterior coat of PVDF over 5 microns PU back coat over 5-micron primer coats on both surfaces including side and end laps and using 8mm galvalume hex self-drilling. Item to include curved sheets and crimping also. Includes providing fasteners on each crest of sheets for connection with purlins andseambolts etc. measured per unit of laid areas.Measurement will be made in sqm of laid area. For Sky light providing, supplying, erecting and fixing in position 3mm thick corrugated clear Polycarbonate sheets of approved make texture and colour for Sky light. The corrugation Profile shall match with the profile of roof sheets as listed out in item above, including capping and fixing to roof sheets and steel girts by same fasteners as used by roof sheeting, minimum end laps of 200 mm sealing of laps with silicon sealant, watertight complete in all respects, Contractor shall give 20 years guarantee for Polycarbonate sheets against discolour and disintegration of sheets, and leakage across laps, fastener etc.		20%
	As per item above for Roof Sheeting / Side Cladding & Skylight including all flashings, overlaps etc. complete in all respect.		
3.0.	Drainage including downtake pipe &gutter complete (as per Specification)		5%
	TOTAL		**100%**

Signature of Authorized Signatory
On behalf of Tenderer

SCHEDULE – B
ANNEXURE – B1

Sub-Head 1 – Civil Utilities

S. NO.	Item Description	Units	Rate
1	Taking out and transportation of C.I/M. S/P.S.C/H.S. pipes including dejointing and transportation upto all lifts and a lead of 5km.		
A	For pipeline		
a.	upto 300mm dia pipeline	metre	373.34
b.	upto 400-600 mm dia pipeline	metre	682.12
c.	Upto 700-1400 mm dia pipeline	metre	1,357.20
B	for interconnection point/Y-Tee/Valve		
a.	upto 300mm dia	each	14,074.64
b.	upto 400-600 mm dia	each	36,166.30
c.	1000 mm dia	each	63,523.08
d.	1400 mm dia	each	80,170.86
e.	1500mm dia	each	95,284.60
2	Providing and laying S&S NP-3 RCC, pipes manufactured by using sulphate resistant cement including jointing with rubber ring and filling joints with cement mortar 1:2		
a.	150 mm diameter	metre	530.53
b.	250mm dia pipe	metre	787.39
c.	300mm dia pipe	metre	936.16
d.	400mm dia pipe	metre	1,663.20
e.	450mm dia pipe	metre	1,722.15
f.	600mm dia pipe	metre	2,647.07
g.	900mm dia pipe	metre	4,926.40
h.	1600 mm dia pipe	metre	17,121.26
3	Providing and laying S&S NP-4 RCC pipes manufactured by using sulphate resistant cement including jointing with rubber ring and filling joints with cement mortar 1:2		
a.	1400 mm dia pipe	metre	20,540.12
b.	600 mm dia pipe	metre	4,196.57
c.	450 mm dia pipe	metre	2,589.53
d.	400 mm dia pipe	metre	2,046.36
e.	300 mm dia pipe	metre	1,449.85
f.	250 mm dia pipe	metre	832.30
4	Plugging of water main with balloon of adequate size by inflating with air compressor including transportation of air compressor at site		
a.	400 mm dia	job	17,855.77
b.	600 mm dia	job	26,783.66
5	Plugging the total sewerage from the existing sewer line so as to reduce the drainage of sewer line to minimum in wet and foul condition by placing gunny bags filled up with earth and stacked properly including supplying and laying the filled up gunny bags up to full length and required height as directed by Engineer and subsequent removal of the same		

	after completion of the job to the entire satisfaction of the Engineer-in-charge, including pumping & bailing out of the water complete.		
a.	250 mm dia pipe	job	2,043.55
b.	300 mm dia pipe	job	2,941.82
c.	400 mm dia pipe	job	4,767.80
d.	450 mm dia pipe	job	5,901.87
e.	600mm dia pipe	job	10,491.44
f.	700mm dia pipe	job	13,647.98
g.	800mm dia pipe	job	19,656.19
6	Plugging the total storm water drain from the existing storm water line so as to reduce the drainage of storm line sewer line to minimum in wet and foul condition by placing gunny bags filled up with earth and stacked properly including supplying and laying the filled up gunny bags up to full length and required height as directed by Engineer and subsequent removal of the same after completion of the job to the entire satisfaction of the Engineer, including pumping & bailing out of the water complete.		
a.	150 mm dia pipe	job	734.06
b.	250 mm dia pipe	job	2,043.55
c.	300 mm dia pipe	job	2,941.82
d.	400 mm dia pipe	job	5,232.38
e.	450 mm dia pipe	job	5,901.87
f.	600 mm dia pipe	job	10,491.44
g.	900 mm dia pipe	job	23,607.46
h.	1400 mm dia pipe	job	49,384.39
i.	1600 mm dia pipe	job	75,141.50
7	Providing lead caulked joints including the cost of pig lead supply and fixing of rubber gaskets welding, and cutting of MS pipes and specials, including the cost of H/P of T&P at site (For water mains at interconnection point / Y-tee/ valve) including cost of dewatering.		
a.	upto 300 mm dia	each	20,471.98
b.	400 – 600 mm dia	each	25,589.27
c.	900 mm dia	each	40,451.00
d.	1000 mm dia	each	44,945.58
e.	1500 mm dia	each	67,418.35
8	Supply and installation of MS pipe (6 mm thick) with 750 Micron PU coating internally and 250-micron anti corrosive bituminous paint externally with a tolerance of 6" in gradient by trenchless technology method at an average depth of 5 mtrs below the road level including excavation & filling of pits, dewatering arrangements, supporting systems for soil, including the approval from the concerned department. The firm will also supply the test certificate w.r.t M.S. Pipe, design of PV coating etc. The work also involves under ground mapping of services, barricading, installation of flickering lights etc, clearing site in all respects after submitting CCTV survey report from u/s to d/s, connection manholes along with the site of drawing showing work complete in all respect.		
a.	250 mm dia (6mm thick)	metre	20,471.98
b.	600 mm dia (10mm thick)	metre	75,063.90

9	Providing and laying of 100 mm GI pipe, medium class, Jindal make, with all accessories like bends, sockets, etc all complete	metre	792.99
10	P/L of MS pipe of 10 mm wall thickness on agreed line and grade (as per IS: 3589 and made from steel confirming to IS: 2062) the steel pipe surface internal and external shall be blasted to near white and then coated with solvent less P.U. coating of nominal 750 microns and nominal 1000 microns on exterior and interior surface respectively all approved/used by railway/DDA's/RDA's project for sewer and water lines with design and construction of Man holes at approximate 30 meter interval or required distance with trenchless construction technique below the water table preferably without the need of dewatering, Accuracy of level at required gradient/slope to be achieved by use of Laser/CCTV controlled by suitable equipment. In the last pit, the equipment to be positioned at surface in a single traffic lane. The work shall be done in such a manner that it will not disturb the smooth movement of traffic. The item includes excavation of trenches and recovery pit and backfilling after work completed at the site of work mobilization and demobilization of equipment consumable etc as needed to complete the work and cleaning of site complete including disposal of surplus earth within 10 km lead and making water and manhole connections. Traffic control arrangement and lighting display of sign board. Insurance of work man etc complete including removal of all hindrances, unforeseen items permission of other dept. (dept. shall only assist in getting permissions etc.) nothing extra shall be paid on this account to complete the job.		
A.	900 mm dia pipe by trenchless technology	metre	92,123.87
b.	1200 mm dia pipe by trenchless technology	metre	1,23,921.86
c.	1400 mm dia pipe by Trenchless technology	metre	1,55,534.11
d.	1600 mm dia pipe by Trenchless technology	metre	1,63,076.46
e.	Extra for 2 mm thick for 1200 mm dia. MS pipe as extra over & above on item no. 10 (b)	metre	7,442.87
f.	Extra for 4 mm thick for 1400 mm dia. MS pipe as extra over & above on item no. 10 I	metre	17,343.20
g.	Extra for 6 mm thick for 1600 mm dia. MS pipe as extra over & above on item no. 10 (d)	metre	30,073.49
11	Providing and laying MS pipes/barrels made out of required thickness MS plate Including painting with epoxy paint of approved quality outside and inside tested to a head of 15kg/cm square suitable for welding joints conforming to IS 3589-1981, IS 784-1974 including testing of the specified head as directed by the Engineer.		
A.	Pipes made up of MS sheet(6mm to12mm th.)	Kg	96.85
12	Providing and laying MS specials such as tees, bends, collars, tails pieces etc made out of required thickness MS sheet including painting with epoxy paint of approved quality outside and inside tested to a head of 15kg/sqcm suitable for welding joints conforming to IS 3589-1981, IS 784-1974 including testing of the specified head as directed by the Engineer.		
	Specials made up of MS sheet (6mm to 12mm th.)	Kg	115.08

13	Providing H.S. Pipe, made out of 6 mm thick MS plate with inside cement mortar lining of 25 mm thick and 25 mm thick outside coating as per IS :1916 of following diameter		
a.	300 mm dia pipe	mtr	7,334.87
b.	400 mm dia pipe	mtr	9,809.30
c.	600 mm dia pipe	mtr	12,794.63
14	Laying H.S. Pipe, made out of 6 mm thick MS plate with inside cement mortar lining of 25 mm thick and 25 mm thick outside coating as per IS :1916		
a.	300 mm dia pipe	mtr	255.45
b.	400 mm dia pipe	mtr	341.06
c.	600 mm dia pipe	mtr	422.47
15	Providing and fixing IVC brand 400 mm dia D/F non- return / check valve of PN 1.0 rating having Body/Door of CI Gr. 20, TRUNNION shaft AISI 410, Face & Seat ring of GM i.e., metal to metal seat & not Rubber to metal, generally confirming to IS: 5312, Flange flat face drilled to ISI 538 Part IV & VI/BS 10 Table “D”	Each	1,99,678.25
16	Providing and fixing CI D/F Sluice Valve with S&S (IS 6603 12 Sr 12) stain and gun metal Parts confirming to IS 14846 of approved make/ of approved brand (withcap) in the existing pipe with bolts, nuts, rubber insertions etc. complete and as per the direction of Engineer		
a.	400 mm dia	Each	1,26,346.31
b.	450 mm dia	Each	1,66,932.33
c.	600 mm dia	Each	2,90,070.11
d.	900 mm dia	Each	14,42,831.28
e.	1000 mm dia	Each	16,54,709.49
17	Providing and fixing CI double acing air valve of approved quality with bolts, nuts, rubber insertions etc (the tail pieces tapers etc if required will be paid separately.	Each	373.34
	200 mm dia.		
18	Providing and laying MS pipes of required dia and thickness of MS palte confirming to IS 2062, interior lining with cement mortor surface treated with coating and wraping confirm to IS: 3589-2001, IS: 10221-1982, IS :11909-1986 specifications i/c all leads and lift complete as per direction of the Engineer –in –charge.		
a.	920mm internal dia (8mm thick)	Rmt	27,259.80
b.	920mm internal dia (10 mm thick)	Rmt	22,500.90
c.	1020mm internal dia (10 mm thick)	Rmt	29,392.05
d.	1524 mm internal dia (12 mm thick)	Rmt	52,864.43
19	Pumping out water by deploying (below mention pumps) I/c. Disposal of pumped water for any lift into municipal drain.		
(a)	25 H.P Submersible pump/Diesel pump of discharge capacity 250-300 KL/Hrs	Shift	5,143.28
(b)	10 H.P Submersible pump/Diesel pump of discharge capacity 100-120 KL/Hrs.	Shift	1,951.25

I	5-7.5 H.P Submersible pump/Diesel pump of discharge capacity 50-60 Kl/Hrs.	Shift	1,064.31
20	Brickwork with sewer brick in 1:4 cement mortar (1cement:4 coarse sand) and extra on plan up to a mean radius (not exceeding 6.0 m)	Cum.	5,516.31
21	Providing and driving of temporary H- piles (ISMB-250) having a length of 10.5m 17itumas. means using the appropriate machinery and providing and placing wooden lagging 100x100x1485mm long in between H-Piles for supporting excavated soil faces to a excavated depth of soil i/c excavation of soil as required and removing and re-driving the H-Piles & removing and placing wooden lagging in stretch as required i/c all T&P ,labour Machinery etc.	Cum	1,447.49
22	Providing and stacking of Gunny bags	Nos.	24.85
23	Providing and fixing of precast interlocking grass paver tiles with smooth finish of 80mm thickness, of approved make having compressive strength of 200 kg/Sqm in approved colour and pattern, including maintenance during project period.	Sqm	886.92
24	Providing and fixing of refurbished MS barricade as per specified drawing including maintenance during project period.	RMT	3,397.89

Signature of Authorized Signatory
On behalf of Tenderer

SCHEDULE – B
ANNEXURE – B1

Sub-Head 2 – Electrical Utilities

S. NO.	Item Description	Units	Rate
A	RATE FOR POWER CABLE SUPPLY AND LAYING IN TRENCH WITH SAND AND PROTECTIVE COVERING		
1	Supply at the site of work of HT, XLPE insulated, armoured, Aluminium conductor cables as per IS-7098/Part-II/1985 with up to date amendment & specified in the specifications of the sizes given below, laying of cables in trenches in all types of areas (normal soil, footpath, road etc) by excavation with laying arrangement with stand cushion and brick/brick tiles or shaped RCC cover protection as required/approved by utility owing agency at the required depth including refilling of trenches, testing & commissioning of cables etc as required		
a.	33KV XLPE 3x400 sqmm	metre	5,837.55
b.	33KVXLPE 3x300 sqmm	metre	4,940.39
c.	11KVXLPE3X400 sqmm	metre	4,009.70
d.	11KVXLPE3X300 sqmm	metre	3,335.62
e.	11KVXLPE3X240 sqmm	metre	2,908.22
f.	11KVXLPE3X150 sqmm	metre	2,070.89
g.	11KVXLPE3X185 sqmm	metre	2,384.88
h.	11KVXLPE3X120 sqmm	metre	1,837.89
i.	11KVXLPE3X70 sqmm	metre	1,386.82
2	Supply at the site of work of LT, XLPE insulated, armored, Atuminium conductor cables as per IS-7098/Part-I/1988 with up to date amendment & specified in the specifications of the sizes given below, laying of cables in trenches in all types of areas (normal soil, footpath, road etc) by excavation with laying arrangement with stand cushion and brick/brick tiles or shaped RCC cover protection as required/approved by utility owing agency at the required depth including refilling of trenches, testing & commissioning of cables etc as required.		-
a.	1.1 KV XLPE 3.5x400 sqmm	metre	3,015.45
b.	1.1KVXLPE 3.5x300 sqmm	metre	2,415.36
c.	1.1KVXLPE 3.5x240sqmm	metre	1,989.22

d.	1.1KV XLPE 3.5x185 sqmm	metre	1,574.29
e.	1.1KVXLPE 3.5x150 sqmm	metre	1,287.58
f.	1.1KV XLPE 3.5x120 sqmm	metre	1,094.46
g.	1.1 KV XLPE 3.5x95 sqmm	metre	902.80
3	Supply at the site of work of LT, PVC insulated, armoured, Aluminium conductor cables as per IS-1554/Part-I/1988 with up to date amendment & specified in the specifications of the sizes given below, laying of cables in trenches in all types of areas (normal soil, footpath, road etc) by excavation with laying arrangement with stand cushion and brick/brick tiles or shaped RCC cover protection as required/approved by utility owing agency at the required depth including refilling of trenches, testing &commissioning of cables etc as required		-
a.	1.1KVPVC 4x95 sqmm	metre	937.56
b.	1.1 KV PVC 4x70 sqmm	metre	722.83
c.	1.1 KV PVC 4x50 sqmm	metre	606.00
d.	1.1KVPVC 4x25sqmm	metre	374.75
e.	1.1KVPVC 4x16 sqmm	metre	298.95
f.	1.1KVPVC 4x10 sqmm	metre	252.64
g.	1.1 KV PVC 2x25 sqmm	metre	254.04
h.	1.1KVPVC 2x10 sqmm	metre	220.35
i.	1.1 KV PVC 10x4 sqmm (Cu)	metre	797.90
j.	1.1 KV PVC 3.5x70 sqmm	metre	659.65
tc.	1.1 KV PVC 3.5x50 sqmm	metre	557.67
l.	1.1 KV PVC 3.5x35 sqmm	metre	437.54
m.	1.1 KV PVC 3.5x25 sqmm	metre	383.48
B	RATE FOR ADDITIONAL POWER CABLES SUPPLY AND LAYING IN SAME TRENCH WITH SAND AND PROTECTIVE COVERING		-
4	Supply at the site of work of HT, XLPE insufated, armoured, Aluminium conductor cables as per IS-7098/Part-II/1985 with up to date amendment & specified in the specifications of the sizes given below, laying of additional cables in same trenches of required width in all types of areas (normal soil, footpath, road etc) by excavation with laying arrangement with stand cushion and brick/brick tiles or shaped RCC cover protection as required/approved by utility owing agency at the required depth including refilling of trenches, testing &commissloning of cables etc as required		-
a.	HT ARMOURED CABLES	metre	5,794.95

b.	33KV XLPE 3x400 sqmm	metre	4,897.81
c.	11 KV XLPE3X400sqmm	metre	3,974.76
d.	11 KV XLPE3X300 sqmm	metre	3,300.68
e.	11KVXLPE3X240 sqmm	metre	2,873.28
f.	11 KV XLPE3X150sqmm	metre	2,035.96
g.	11 KV XLPE3X185sqmm	metre	2,349.94
h.	11 KV XLPE3X120sqmm	metre	1,802.95
i.	11 KV XLPE3X70sqmm	metre	1,351.89
j.	Supply at the site of work of LT, XLPE insulated, armoured, Aluminium conductor cables as per IS-7098/Part-1/1988 with up to date amendment & specified in the specifications of the sizes given below, laying of additional cables in same trenches of required width in all types of areas (normal soil, footpath, road etc) by excavation with laying arrangement with stand cushion and brick/brick tiles or shaped RCC cover protection as required/approved by utility owing agency at the required depth including refilling of trenches, testing ^commissioning of cables etc as required		-
a.	1.1KV XLPE 3.5x400 sqmm	metre	2,984.06
b.	1.1 KV XLPE 3.5x300 sqmm	metre	2,383.97
c.	1.1KV XLPE 3.5x240sqmm	metre	1,833.02
d.	1.1KVXLPE 3.5x185 sqmm	metre	1,444.23
e.	1,1 KV XLPE 3,5x150sqmm	metre	1,176.16
f.	1.1KV XLPE 3.5x120 sqmm	metre	999.32
g.	1.1KVXLPE 3.5x95 sqmm	metre	819.66
6	Supply at the site of work of LT, PVC insulated, armoured,Aluminium conductor cables as per IS-"!554/Part-l/1988 with up to date amendment & specified in the specifications of the sizes given below, laying of additional cables in same trenches of required width in all types of areas {normal soil, footpath, road etc) by excavation with laying arrangement with stand cushion and brick/brick tiles or shaped RCC cover protection as required/approved by utility owing agency at the required depth including refilling of trenches, testing a commissioning of cables etc as required		-
a.	1.1 KV PVC 4x95 sqmm	metre	912.30

b.	1.1 KV PVC 4x70 sqmm	metre	697.56
c.	1.1 KV PVC 4x50 sqmm	metre	579.11
d.	1.1 KV PVC 4x25sqmm	metre	349.47
e.	1.1 KV PVC 4x16 sqmm	metre	273.68
f.	1.1 KV PVC 4x10 sqmm	metre	227.37
g.	1.1 KV PVC 2x25 sqmm	metre	228.77
h.	11 KV PVC 2x10sqmm	metre	195.10
i.	1.1 KV PVC “10x4sqmm (Cu)	metre	770.99
j.	1.1 KV PVC 3.5x70sqmm	metre	630.67
k.	11KV PVC3.5x50sqmm	metre	526.30
l.	1.1 KV PVC 3.5x35sqmm	metre	410.66
m.	1.1 KV PVC 3.5x25sqmm	metre	356.58
C	CABLE SUPPLY AND LAYING IN RCC HUME PIPE IN GROUND		-
7	Supply at the site of work of HT, XLPE insulated, armoured, Aluminium conductor cables as per IS-7098/Part-II /1985 with up to date amendment & specified in the specifications of the sizes given below, laying of cables in RCC Hume pipes 250/150mm dia with collars (RCC Hume pipes confirming to NP2 with collars) including laying of pipes by open trenching method in all types of areas (normal soil, footpath, road etc) as directed by engineer in charge, including refilling of Trenches, Testing and Commissioning of cables etc as required. The Rate Require shall include supply of pipes of requisite size and specification:		-
	HT ARMOURED CABLE		-

a	33KV XLPE 3x400 sqmm,250mm dia pipe	Meter	5,730.46
b	33KV XLPE 3x300 sqmm,250 mm dia pipe	Meter	4,914.87
c	11KVXLPE 3X400sqmm, 150mm dia pipe	Meter	4,010.04
d	11 KV XLPE 3X300 sqmm,150mm dia pipe	Meter	3,397.24
e	11 KV XLPE 3X240 sqmm,150mm dia pipe	Meter	3,008.70
f	11KVXLPE 3X150sqmm,150mm dia pipe	Meter	2,247.49
g	11 KV XLPE 3X185sqmm, 150mm dia pipe	Meter	2,532.40
h	11 KV XLPE 3X120sqmm, 150mm dia pipe	Meter	1,491.14
i	11KV XLPE3X70sqmm, 150mm dia pipe	Meter	1,625.61
8	Supply at the site of work of LT, XLPE insulated, armoured, Aluminium conductor cables as per IS-7098/Part-I /1988with up to date amendment & specified in the specifications of the sizes given below, laying of cables in RCC hume pipes 250/150mm dia with collars (RCC hume pipes confirming to NP2 with collars} including laying of pipes by open trenching method in all types of areas (normal soil, footpath, road etc) as directed by engineer in charge, including refilling of Trenches, Testing and Commissioning of cables etc as required. The Rate Require shall include supply of pipes of requisite size and specification:		-
a	1.1KVXLPE 3.5x400 sqmm	Meter	3,109.39
b	1.1KV XLPE 3,5x300 sqmm	Meter	2,563.85
c	1.1 KV XLPE 3.5x240sqrnm	Meter	2,176.45
d	1.1 KV XLPE 3.5x185 sqmm	Meter	1,799.26

e	1.1KVXLPE 3.5x150sqmm	Meter	1,538.62
f	1.1 KV XLPE 3.5x120 sqmm	Meter	1,369.15
g	1.1KVXLPE 3.5x95 sqmm	Meter	1,160.72
9	Supply at the site of work of LT, PVC insulated, armoured, Aluminium conductor cables as per IS-1554/Part-I /1988 with up to date amendment & specified in the specifications of the sizes given below, laying of cables in RCC Hume pipes 250/150mm dia with collars (RCC hume pipes confirming to NP2 with collars) including laying of pipes by open trenching method in all types of areas (normal soil, footpath, road etc) as directed by engineer in charge, including refilling of Trenches, Testing and Commissioning of cables etc as required. The Rate Require shall include supply of pipes of requisite size and specification:		-
a	1.1 KV PVC 4x95 sqmm, 100mm dia pipe	Meter	1,251.02
b	1.1 KV PVC 4x70 sqmm100mm dia pipe	Meter	1,041.80
c	1.1KV PVC 4x50 sqmm100mm dia pipe	Meter	890.91
d	1,1 KV PVC 4x25sqmm100mm dia pipe	Meter	701.76
e	1.1KV PVC 4x16 sqmm100mm dia pipe	Meter	628.56
f	1.1 KV PVC 4x10 sqmm100mm dia pipe	Meter	583.95
g	1.1KV PVC 2x25 sqmmlOOmmdia pipe	Meter	585.08
h	1,1 KV PVC 2x10sqmm100mm dia pipe	Meter	552.79
i	1.1KVPVC 10x4sqmm (Cu)100mm dia pipe	Meter	1,063.33
j	1.1 KV PVC 3.5x70sqmm100mm dia pipe	Meter	980.51
k	1.1 KV PVC3.5x50sqmm 100mm dia pipe	Meter	846.99

l	1.1 KV PVC 3.5x35sqmm100mm dia pipe	Meter	741.84
m	1.1 KV PVC 3.5x25sqmm100mm dia pipe	Meter	686.57
D	RATE ANALYSIS FOR POWER CABLE SUPPLY AND LAYING IN EXISTING PIPE (EXCLUDING SUPPLY AND LAYING OF PIPE		-
10	Supply at the site of work of HT, XLPE insulated, armoured, Aluminium conductor cables as per IS-7098/Part-II /1985 with up-to-date amendment & specified in the specifications of the sizes given below, laying of cables in existing pipes in all types of areas (normal soil, footpath, road etc). As directed by engineer in charge, including testing and commissioning of cables etc as required		-
	HT ARMOURED CABLES		-
a	33KVXLPE 3x400 sqmm	Meter	5,235.54
b	33KVXLPE 3x300 sqmm	Meter	4,419.97
c	11KV XLPE3X400sqmm	Meter	3,578.79
d	11KV XLPE3X300 sqmm	Meter	2,965.97
e	11KVXLPE3X240 sqmm	Meter	2,577.43
f	11 KV XLPE3X150sqmm	Meter	1,816.24
g	11KV XLPE3X185sqmm	Meter	2,101.69
h	11KV XLPE3X120sqmm	Meter	1,604.41
i	11KV XLPE3X70sqmm	Meter	1,194.35

11	Supply at the site of work of LT, XLPE insulated, armoured, Aluminium conductor cables as per IS-7098/Part-I /1988 with up-to-date amendment & specified in the specifications of the sizes given below, laying of cables in existing pipes in all types of areas normal soil, footpath, road etc). As directed by engineer in charge, including testing and commissioning of cables etc as required		-
a	1.1KV XLPE 3.5x400 sqmm	Meter	2,678.16
b	1.1KV XLPE 3.5x300 sqmm	Meter	2,132.67
c	1.1 KV XLPE 3.5x240sqmm	Meter	1,633.71
d	1.1KVXLPE 3.5x185 sqmm	Meter	1,281.42
e	1.1KV XLPE 3,5x150sqmm	Meter	1,037.21
f	1.1 KV XLPE 3.5x120 sqmm	Meter	878.61
g	1.1KV XLPE 3.5x95 sqmm	Meter	714.40
12	Supply at the site of work of LT, PVC insulated, armoured, Aluminium conductor cables as per IS1554/Part-I /1988 with up-to-date amendment & specified in the specifications of the sizes given below, laying of cables in existing pipes in all types of areas normal {soil, footpath, road etc). As directed by engineer in charge, including testing and commissioning of cables etc as required		-
a	1.1 KV PVC 4x95 sqmm	Meter	800.01
b	1.1KV PVC 4x70 sqmm	Meter	603.52
c	1.1KV PVC 4x50 sqmm	Meter	493.86
d	1.1 KV PVC 4x25sqmm	Meter	286.32
e	1.1KVPVC 4x16 sqmm	Meter	216.14
f	1.1 KV PVC 4x10 sqmm	Meter	174.04

g	1.1KVPVC 2x25 sqmm	Meter	175.44
h	1.1KVPVC 2x10sqmm	Meter	144.55
i	1.1 KV PVC 10x4sqmm (Cu)	Meter	666.03
j	1,1 KV PVC 3.5x70sqmm	Meter	583.46
k	1.1KV PVC3.5x50sqmm	Meter	449.93
l	1,1 KV PVC 3,5x35sqmm	Meter	344.79
m	1.1KV PVC 3_5x25sqmm	Meter	289.29
E	DISMANTLING (Taking Out from Ground) of Cables		-
13	Dismantling (taking out from ground) the following rating & sizes of XLPE/PILCA/PVC cables, without damaging the cables, by excavation in ail types of area (normal soil, footpath, road etc.) with refilling excavated trenches. This also includes handing over of dismantled cable (if not relayed) to concerned utility owning agency		-
a	33KV Cables of all Type and Sizes above 120 Sqmm	Meter	59.09
b	11KV Cables of all Type and Sizes above 120 Sqmm	Meter	47.71
c	LT Cables of all Type and Sizes 120 Sqmm and above	Meter	35.08
d	LT Cables of all Type and Sizes less than 120 Sqmm	Meter	29.48
e	11 KV Cables of all Type and Sizes less than 120 Sqmm	Meter	45.18
F	SUPPLY, MAKING, TESTING &COMMISIONING OF COMPLETE STRAIGHT THROUGH JOINT BOX		-

14	Supply, Making, Testing and Commissioning of Complete Straight Through Joint as Specified in the Specification including Provision of Lugs/Ferrules for Jointing the HT/LT, XLPE/PIICA/PVC insulated cables, excavation of Pits, sand Cushioning, Protective Covering Refilling of Jointing Pit etc as Required by Utility Owing Agency of Following Sizes and Type:		-
a	33KV H.S, Type 3 X 400 sqmm	Set	65,875.52
b	33KV H.S. Type 3 x 300 sqmm	Set	58,873.77
c	11 KV H.S. Type 3 x 300 sqmm	Set	22,069.35
d	11 KV H.S. Type 3 x 240 sqmm	Set	22,069.36
e	11KV H.S. Type 3 x 150 sqmm	Set	20,209.83
f	11 KV H.S. Type 3X185 Sq. mm	Set	20,209.83
g	11 KV H.S, Type 3X120 Sq. mm	Set	20,209.83
h	11 KV H.S. Type 3X70 Sq. mm	Set	15,967.92
i	33 KV H.S Transition Type 3X400 Sq. mm	Set	74,175.82
j	33 KV H.S. Transition Type 3X300 Sq. mm	Set	74,175.82
k	11 KV H.S. Transition Type 3X300 Sq. mm	Set	27,962.99
l	11 KV H.S. Transition Type 3X240 Sq. mm	Set	27,962.99
m	11 KV H.S. Transition Type 3X150 Sq. mm	Set	26,480.94
n	11 KV H.S, Transition Type 3X185 Sq. mm	Set	27,962.99

o	11 KV H.S. Transition Type 3X120 Sq. mm	Set	26,480.94
p	11 KV H.S. Transition Type 3X70 Sq. mm	Set	24,875.93
q	33 KV Tapex Type 3X400 Sq, mm	Set	50,280.87
r	33 KV Tapex Type 3X300 Sq. mm	Set	43,060.95
s	11 KV Tapex Type 3X300 Sq. mm	Set	12,576.10
t	11 KV Tapex Type 3X240 Sq. mm	Set	12,576.10
u	11 KVTapex Type 3X150 Sq. mm	Set	10,498.44
v	11 KVTapex Type 3X185 Sq. mm	Set	10,498.44
w	11 KVTapex Type3X120 Sq. mm	Set	10,498.44
x	11 KV Tapex Type 3X70 Sq. mm	Set	9,099.49
y	33 KV Tapex Transition Type 3X400 sq.mm	Set	57,026.38
z	33 KV Tapex Transition Type 3X300 sq mm	Set	55,592.78
aa	11 KV Tapex Transition Type 3X300 sq.mm	Set	13,597.63
bb	11 KV Tapex Transition Type 3X240 sq.mm	Set	13,597.63
cc	11 KV Tapex Transition Type 3X150 sq.mm	Set	11,493.99
dd	11 KV Tapex Transition Type 3X185 Sq. mm	Set	11,493.99
ee	11 KV Tapex Transition Type 3X120 Sq. mm	Set	11,493.99

ff	11 KV Tapex Transition Type 3X70 Sq, mm	Set	9,184.32
gg	LT 1.1 KV cast resin comp. Type 3.5x400	Set	3,363.37
hh	LT 1.1KV cast resin comp. Type 3.5x300	Set	2,804.13
ii	LT 1.1 KV cast resin comp. Type 3.5x240	Set	2,390.32
jj	LT 1.1 KV cast resin comp. Type 3.5x185	Set	1,954.02
kk	LT 1.1 KV cast resin comp. Type 3.5x150	Set	1,905.54
ll	LT 1.1 KV cast resin comp. Type 3.5x120	Set	1,830.88
mm	LT 1.1KV cast resin comp. Type 3.5x95	Set	1,259.52
nn	LT 1.1 KV cast resin comp. Type 4x95	Set	1,259.52
oo	LT 1.1Kvcast resin comp. Type 4x70	Set	1,259.52
pp	LT 1.1 KV cast resin comp. Type4x50	Set	1,035.83
qq	LT 1.1 KV cast resin comp. Type 4x25	Set	879.17
rr	LT 1.1 KV cast resin comp. Type 4x16	Set	782.23
ss	LT 1.1KV cast resin comp. Type 4x10	Set	782.23
tt	LT 1.1 KV cast resin comp. Type2x25	Set	782.23
uu	LT 1.1KV cast resin comp. Type 2x10	Set	673.16
vv	LT 1.1 KV cast resin comp. Type 10x4	Set	879.17

ww	LT 1.1 KV cast resin comp. Type 3.5CX70	Set	1,259.52
xx	LT 1.1Kvcast resin comp. Type 3.5CX50	Set	1,035.83
yy	LT 1.1KV cast resin comp. Type 3.5CX35	Set	394.32
zz	LT 1.1KV cast resin comp. Type 3.5CX25	Set	879.17
15	Supply, Making, testing & Commissioning of Complete Heat Shrinkage Type Indoor/Outdoor type and end Termination as Specified in the Specifications including provision of Lugs/Ferrules for Termination of XLPE insulated cable including making Hole in the Switch Board, Clamping, supporting complete as required by Utility owing agency of Following Sizes:		-
	INDOOR TERMINATIONS		-
a	11 KV H.S. Type 3X300 Sq. mm	Set	7,945.44
b	11 KV H.S. Type 3X240 Sq. mm	Set	7,945.44
c	11 KV H.S. Type 3X150 Sq. mm	Set	7,471.43
d	11 KV H.S. Type 3X185 Sq. mm	Set	7,471.43
e	11 KV H.S. Type 3X120 Sq. mm	Set	7,471.43
f	11 KV H.S. Type 3X70 Sq. mm	Set	6,304.60
g	33KV H.S. Type 3X300 Sq. mm	Set	40,919.87
h	33KV H.S. Type 3X400 Sq, mm	Set	48,141.03
	OUTDOOR TERMINATIONS		-

i	11 KV H.S. Type 3X300 Sq. mm	Set	11,907.77
j	11 KV H.S. Type 3X240 Sq. mm	Set	11,907.77
k	11 KV H.S. Type 3X150 Sq. mm	Set	10,631.56
l	11 KV H.S. Type 3X185 Sq. mm	Set	10,631.56
m	11 KV H.S. Type 3X120 Sq. mm	Set	10,631.56
n	11 KV H.S. Type 3X70 Sq. mm	Set	9,926.61
o	33KV H.S. Type 3X300 Sq. mm	Set	40,919.87
p	33KV H.S. Type 3X400 Sq, mm	Set	48,141.03
G	NG SYSTEM (DVB/ NDMC)		-
16	Supply and Erection of 250 W Street Lighting HPSV Lamp fitting Complete with HPSV Lamps, Fittings, Choke, Ignitor etc. as per the specifications of the owing agency required or erected pole including wiring from the box, earthing. The wiring shall be done with 1x4 sqmm PVC insulated, PVC sheathed Aluminium conductor Cable including Testing and commissioning as per specifications and requirement, 16 SWG wire shall be run throughout the wiring for pole fitting inclusively.	Each	8,090.19
17	Supply and Transporting to the site of the work of Steel Tubular swaged Pole of 10.5-meter height as specified with		-
a	Double Overhang Bracket-2mtr long	Each	9,288.75
b	Single Overhang Bracket -2 mtr Long	Each	8,989.11

18	Erection of steel tubular swaged Poles of Height above 9.0 mtr but less than 12,0 mtr with double/Single overhang bracket 2 mtr long including excavation and providing and laying cement concrete 1:3:6(1 cement: 3course sand: 6 stone aggregate of 20mm nominal size) in foundation and collar size 450mm diameter and 400 mm height including providing and fixing 50mm diameter class B GI pipe 1.5 meter long for cable entry, l/o Plastering the foundation collar with 1:3 cement and course sand and painting of pole and bracket with aluminium colour synthetic enamel paint complete as required	Each	1,869.74
19	Dismantling of Complete Street Lighting Pole (Of height above 9m but less than 12m single/double overhang type) with fittings in such a manner that pole is not damaged and can be relocated	Each	386.530
20	Provision of Earthing as per specifications of Utility owing agency (Material as well as Labour)	Each	3,606.13
21	Supply and Erection of Pole Junction Boxes as per NDMC/DVB specifications)	No	525.87
H	LAYING OF PIPES BY TRENCHLESS BORING		-
22	Supply of HDPE pipe confirming to PN4 as specified the sizes given below, boring of road areas by using trench -less method and laying of HDPE pipe properly continuously joined		-
a	63mm	Meter	631.59
b	75mm	Meter	729.85
c	110mm	Meter	842.13
d	160mm	Meter	1,964.96
e	200 mm	Meter	2,105.31
f	250mm	Meter	2,526.35
I	LAYING OF PIPES BY OPEN TRENCHING METHOD		-

23	Supply of HDPE pipe confirming to PN4 as specified the sizes given below, laying of HDPE pipe properly continuously joined, by Open Trench method of laying		-
a	63mm	Meter	421.06
b	75mm	Meter	561.42
c	110mm	Meter	746.67
d	160mm	Meter	842.13
e	200mm	Meter	982.46
f	250mm	Meter	1,136.87
24	Supply of 66 KV Cable I grade single core, size630 sqmm confirming to 60502-2& laying of cable in trenches in all types of areas (normal soil, footpath, road etc.) by excavation with laying arrangement with sand cushion and brick/brick tiles or shaped RCC cover protection as required /approved by utility owing agency at required depth including refilling of trenches testing & commissioning of cable etc as required	Meter	3,412.860
25	66 KV Outdoor type and termination kit suitable for cable (premoulded type)	Each set	1,14,049.37
26	66KV XLPE Cable straight through joint kit Complete	Each set	1,08,558.54
27	Warring Tape and Type Test Charge for Cable	Mtr	37.45
28	ROAD LIGHTING FOR VIP AREA		-
a	Hot Dipped Galvanized smart Poles (Bajaj/Chinar make standard specification Type 80P-1040. Height 10mtr, TopDia 100mm, BottomDia 200mm, Plate thickness 4mm, Base Plate310x310x20mm foundation PCD 310 mm Bolt size 4x25mm Dia	Each	26,638.09
b	ZEBRA LIGHTING POLE WITH ZEBRA MC3 250W	Each	43,175.38

	Zebra MC3 Lantern with IP-66 made out off white painted die cast aluminium alloy body with the cover made up of polypropylene treated to withstand UV rays; an optical compartment comprising of an acrylic protector equipped with especially made dispersive reflector to provide maximum lighting in a Plane Perpendicular to roadway center line. Reflector to be made out of special grade pre-anodized aluminium sheet.		-
	Complete Optical Unit to provide maximum contrast against surrounding complete with 250 W Metal Halide Tubular Lamp. Pole 6m with 1.5 mtr overhang; with 4mm Thick MS Square section “T” 100 mm, with 300mmx300mmx15mm thick MS Base Plate. The Poles will be in Black and White Strips as well as in Luminaries along with signage of the size2’x2’Square		-
	Cat RefNo.MC3 Zebra/IB/250/1451 LH or RH		-
c	Ex Stock High Pressure Die Cast Light Fittings	No	10,981.57
	SGP 338/2SOW (Velocity) Phillips make IP-66		-
d	Single Bracket Made up of GI and Painted	No	898.91
e	Twin Bracket Made up of GI and Painted	No	1,348.37
f	Triple Bracket Made up of GI and Painted	No	2,191.09
g	250W HPSVIamp	No	809.03
29	Supplying and drawing following size of FRLS PVC insulated copper conductor, single core in existing surface/ recessed steet / PVC conduit as require. {2x25sq.mm)	Mtr	60.61
30	Supplying and fixing following rating, double pole, 240 volts, isolator in the existing MCB DB complete with connection, testing and commissioning etc. As required, (40Amps)	each	249.28
31	Earthing with copper earth plate 600 mmx 600 mm x 3mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 meter long etc. With charcoal/ coke and salt as required.	Set	10,625.33
32	Providing and fixing 25 mm x 5 mm GI strip on surface or in recess for connections etc. As required	Mtr	162.38
33	Providing and fixing earth bus of 50 mm x5 mm copper strip on surface for connections etc. As required	Mtr	1,828.45

34	Supplyin and making straight through Joint with heat shrinkable kit including ferrules and other jointing materials for following size of PVC insulated and PVC shethed /XLPE Aluminium conductor cable of 1.1kv, grade as required.		-
a	3 5C x 25 sq. Mm	Each	1,589.45
b	3.5C x 70 sq. mm	Each	1,898.20
c	3.5C x 240 sq. mm	Each	3,024.54
d	3.5C x 400 sq. mm	Each	5,417.87
35	Supplying and fixing of 32 mm dia x 2.00 meters long G.I. Pipe (medium ciass) bracket for mounting of fluorescent / HPMV /HPSV street light fitting on pole including bending the pipe to the required shape, 2 no's 40 mm x 3mm flat iron clamps with nuts, bolts and washer, painting the tlat iron with primer and finish paint etc. as required.	Nos	938.81
36	Supplying of channel iron 75 mm x 40mm x 6mm (7.14 kg per meter) V-shape cross arm for two 11 kv over headline conductors complete with 50 mm x 6mm M.S. Flate iron clamps, bolts and nuts including drilling holes for insulator pins, bolts, nuts and washers etc. {as per drawing) and painting with primer and finish paint as required.	Each	1,416.79
37	supplying and erection of 11 kv pin insulator complete with large steel head G.I. Pin, nuts, washers etc. As required	Set	436.81
38	Supply and erection of 11 kv disc insulator for 11 kv over headlines with galvanized insulator fitting, ball and socket type and complete with galvanized strain clamps, bolts, nuts, washers etc. as required.	Set	1,301.29
39	Supplying and erection of 33 kv pin insulator complete with large steel head G.I. Pin, nuts, washers etc. as required.	Set	1,273.85
40	Providing, laying and fixing following dia G.I. Pipe (medium class) in ground complete with G.i. Fittings including trenching (75 cm deep) and re-filling etc. As required -150 mm dia	Mtr	1,731.25
41	Supplying, installation, testing and comissining of astronomical time switch of following con figuration to be mounted in feeders/ pillars/ lighting DBs for automatic switching ON &OFFofstreetlight at sun set & sun rise or twilight (Auto ON, Auto OFF, Auto modes) with manual override facility with 12/24 hours display format with suitable battery and indication for relay status i/c programming at site complete as required.	Nos.	2,911.33
42	300 amps. TPN, adaptor box with cable end box, with TPN disconnector FSU, ISI maked HRC fuses and brass compression gland for rising mains	each	15,643.72
43	Supply & Provision of Aluminum lugs for 25 sq. mm cable	each	3.56
44	Supply & Provision of Aluminum lugs for 50 sq. mm cable	each	7.10
45	Supply & Provision of Aluminum lugs for 70 sq, mm cable	each	10.63

46	Supply & Provision of Aluminum lugs for 120 sq. mm cable	each	16.44
47	Supply & Provision of Aluminum lugs for 240 sq. mm cable	each	45.45
48	Supply & Provision of Aluminum lugs for 400 sq. mm cable	each	92.26
49	Dismantling and removing existing 36itumasti, post etc of HT/LT lines and transportation and staking of all materials at suitable locations as per instructins including digging out, loading and unloading on lorries of poles, lines and all materials with out damaging the same.	Mtr	48.03
50	Dismantling and shifting of R.M.U (Ring Main Unit) at various location and 36itumastic36 including foundation work etc.	Nos	28,587.30
51	Instalation One DTR Meter with box (Normally 40x25x100 size) on existing pole and giving the complete connections including conveyance of materials.	Nos	1,266.99
52	Fitting one additional Fuse unit and giving connection from transformer to fuse and fuse to LT O/H Line,	Nos	115.50
53	Supply & Erection of 10 Swg Earth Wire with fiittings	KG	306.28
54	Supply and painting of Red Oxide on poles	Ltr	340.30
55	Supply and painting of Aluminum on poles	Ltr	680.61
56	Supply and fixed of hardware (nut bolt & washer)	KG	241.62
57	Supply & replacing of Ignitor	Nos	251.82
58	Supply & replacing of choke 250 watt	Nos	2,467.20
59	Erection of STP pole 11 mtr (410 SP-51) with arm (old & used) and excavation and grouting	Nos	4,002.23
60	Dismantling of S.T.P. Pole & fittings and light Titling with arms, clamps, fittings etc	Nos	2,401.34
61	Supply and 36itumastic36e of Aerial Bunch Conductor (ABC) (120X3+16X1+95X1) sq. Mm	Mtr.	544.43
62	Earthinng of pole by M.S. Earthing rod of 20x2500 mm and 6SWG Earthing wire etc.	Nos	1,621.60
63	Laying of 33 kv 3x300 sq mm U/G cable including cost of sand, bricks, clamps etc.	Mtr	1,544.52
64	Chemical pipe earthing as per specification (Tranformer Earthing)	Nos.	6,927.61

65	Laying of 11 kv 3x185 sqmm U/G cable including cost of sand and bricks	Mtr	1,247.26
66	Supply S.T.P. Pole 11 Mtr long (1S410SP-55)	Nos.	23,947.63
67	Supply and 37itumastic37e of 11kv D.O-Fuse set.	Nos.	7,444.04
68	Supply and Erection of 11KV T.P.M.O (Air Brake Switch with complete fitting)	Nos,	15,395.89
69	Supply and 37itumastic37e of M.S. Channel (100x50x6mm,2028mm).	Nos.	2,896.62
70	Supply and 37itumastic37e of Top Channel (125x65x2240 mm).	Nos.	4,416.66
71	Supply and 37itumastic37e of Holding clamps for Top Channel, TPMO & FUSE Set etc. With bolt and nuts.	Set	637.29
72	Supply and installation of copper L Piece 400x50x6 mm for LT bushing rod of Transformer	Nos.	1,806.28
73	Supply and 37itumastic37e of T Off Channel (125x65 mm).	Nos.	6,653.84
74	Extra for AL. Tape, binding wire, jointing sleeves P, G.Cimps etc.	LS	1,858.81
75	120 sqmm x IcXPLE Insulated Unarmored cable	Mtr	255.33
76	240 sqmm x IcXPLE Insulated Unarmored cable	Mtr	419.56
77	Erection of Transformer on existing plinth and giving connections (63 KVA to 630 KVA}	Nos,	25,354.66
78	Dismantling / dragging of old transformer and cartage to another site 10 KVA to 25 KVA	Nos.	10,142.01
79	Dismantling / dragging of old transformer and cartage to another site 63 KVA to 750 KVA	Nos.	30,426.01
80	630 sq.mm Aluminum Crimping Lugs	Nos.	186.78
81	Supply and Instalation of LT Clamp	Nos.	231.04
82	Supply of S.T.P. Pole 9 Mtr Long (IS 410 SP-33)	Nos.	16,671.14

83	Instalation of S.T.P.Pole 9 Mtr Long {IS 410 SP-33)	Nos.	1,947.27
84	Supply and fixing of LT Distribution boxes of SMC Type on the LT Pole including all clamps and material for mounteding, connection and sealing	Nos.	3,214.30
85	Dismentling and reconnection of LT service line of consumers after commrssioning of ABC cable – Single phase	Nos.	81.14
86	Dismentling and reconnection of LT service line of consumers after commissioning of ABC cable – Three phase	Nos.	162.28
87	Construction of retaining wall, fabrication & erection of fencing of size 2mtr height around Distribution Transformer with retaining wall & 1 No, Gate with locking arrangement made of MS Angle Iron jointed with nuts and bolts, painting as per norms and comlete in all respect.	Rmtr.	3,598.65
88	50 sqmm x 1C XPLE Insulated Unarmored Cable	Mtr	107.43
89	400 sqmm x 1C XPLE Insulated Unarmored Cable	Mtr	636.51
90	630 sqmm x 1C XPLE Insulated Unarmored Cable	Mtr	1,014.19
91	Supply and installation of 33 kV PG Clamp	Nos	350.54
92	Supply and installation of F-Bracket for 11 kV	Nos	342.76
93	M.S. Angle Iron (65x65x6mm), 2700 mm long bracing with clamps.	Nos.	9,369.06
94	Supply and installation of STAY for HT & LT Pole (Meterial includes stay rod 16x1BOOmm, stay wire 7/10swg 5kg, stay clamp set, bolts nuts washers and grouting with concrete)	Nos.	2,306.32
95	Trenchless boring for 38itumastic38 cable laying by HDD bore of 160mm	Mtr	943.38
96	Trenchless boring for 38itumastic38 cable laying by HDD bore of 200 mm	Mtr	1,307.01
97	Supply and Installation of 250 VAC, 33mfd Condencer	Nos	176.42
98	Supply and Erection of cast Iron Decorative Lamp Post (Garden Light)	Nos	54,985.64
99	High pressure testing of HT PVC/XLPE Cable after Completing of laying, joints and termination.	Nos	5,717.46
100	Dismentiing, Cartage, Reinstallation & Commissioning of CT-PT Units for HT Metering	Nos	9,147.94

101	Dismentiing, Cartage of High Mast above 15 mtr length	Nos	25,728.58
102	Dismentiing, Cartage of High Mast below 15 mtr length	Nos	17,152.39
103	Supply of 11/0.44 kV, 250kVA transformer self protected copper wound type.	Nos	6,47,199.45
104	Supply and erection of LT Feeder Pillar panel 6-way300-amp copper bus bar outdoor type fabricated with 14/16 swg CRCA sheet, dust & vermin proof, provision of double door with lock & coated with siemens grey paint, with provision of 400-amp HRC fuse, base Earthing terminal 2 Nos, with foot mounted concrete foundation, service cable termination, testing & commissioning in complete, P-43.	Nos	1,25,784.15
105	Supply and erection of LT Feeder Pillar panel 6-way300-amp Aluminium bus bar outdoor type made of 1.5 mm cold rolled mild steei, provision of double door with lock & coated with paint, with provision of 400-amp HRC fuse base, testing & commissioning in complete.	Nos	30,302.55
106	Supply and erection of LT Feeder Pillar panel 6-way600-amp Aluminium bus bar outdoor type made of 2.0 mm cold rolled mild steel, provision of double door with lock & coated with paint, with provision of 630-amp HRC fuse base, Earthing terminal, with foot mounted,concrete foundation, service cable termination testing & commissioning in complete.	Nos	56,602.87

Signature of Authorized Signatory
On behalf of Tenderer

SCHEDULE – B
ANNEXURE – B 1

Sub-Head 3 – Telecom Utilities

S. NO.	Item Description	Units	Rate
1	Supply & Provision of Polythene Insulated, Polythene sheathed Jelly filled (PIJF) copper conductor underground Armoured telephone cable as per DOT Specification No- G/CUG/01-02 Feb 96 (latest)		
a.	1200/6.5 lbs (0.5 mm)	Mtr	3,228.13
b.	800/6.5 lbs (0.5 mm)	Mtr	2,175.48
c.	400/6.5 lbs (0.5 mm)	Mtr	1,508.81
d.	200/6.5 lbs (0.5 mm)	Mtr	736.87
e.	100/6.5 lbs (0.5 mm)	Mtr	421.06
f.	50/6.5 lbs (0.5 mm)	Mtr	217.54
g.	20/6.5 lbs (0.5 mm)	Mtr	98.25
2	Supply & Provision of Polythene Insulated, Polythene sheathed Jelly filled (PIJF) copper conductor underground Unarmoured telephone cable as per DOT Specification No- G/CUG/01-02 Feb 96 (latest)		-
a.	1200/6.5 lbs (0.5 mm)	Mtr	2,415.49
b.	800/6.5 lbs (0.5 mm)	Mtr	1,630.91
c.	400/6.5 lbs (0.5 mm)	Mtr	1,131.24
d.	200/6.5 lbs (0.5 mm)	Mtr	551.59
e.	100/6.5 lbs (0.5 mm)	Mtr	315.80
f.	50/6.5 lbs (0.5 mm)	Mtr	162.81
g.	20/6.5 lbs (0.5 mm)	Mtr	72.99
3	Identification for working/non-working cables. This includes cutting, testing & jointing etc. of different corrage at both ends & jointing of cables pair	pairs	2.81
4	Trenching and backfilling on footpath/cc/bitumunious dense carpeted road for identification of cables (1.5m x 1.5 m)	Mtr	596.50
5	Trenching and backfilling on footpath/cc/bitumunious dense carpeted road (.90m x1.0m)	Mtr	238.60
6	Supply and provision of GI pipe B class (100 mm)	Mtr	442.10
7	Supply and provision of red stone slab (600x225x38)	Nos.	21.06
8	Supply & Provision of jointing kit		-
a.	TSF-vi	Nos.	1,824.59
b.	TSF-v	Nos.	1,403.53
c.	TSF-iv	Nos.	982.46
d.	TSF-iii	Nos.	842.13
e.	TSF-ii	Nos.	456.15
9	Supply & Provision of Jointing material for jointing of copper cables	Nos.	1,333.37
10.	Making Jointing pit (3mX3m)	Nos.	842.13
11.	Jointing of newly laid cable pairs	pairs	2.81
12.	laying/slewing of cables of diff. Corrage (Cu.)		-
a.	800 pair & above	Mtr	14.03
b.	Below 800 pair	Mtr	7.01
13	Supply & provision of 48 Fibre Optical Fibre Cable	Mtr	110.88
14	Supply & provision of 24 Fibre Optical Fibre Cable	Mtr	80.01

15	Joint Enclosure 48 Fibre	Nos.	968.43
16	Joint Enclosure 24 Fibre	Nos.	771.94
17	Making 48 F splice	Nos.	7,719.44
18	Making 24 F splice	Nos.	5,614.13
19	Laying of OFC cable	Mtr	14.03
20	Supply and Provision of HDPE pipe 32 mm dia (for subducting)	Mtr	28.08
21	Laying of Subduct (32 mm)	Mtr	7.01
22	Supply and Provision of 4 mm dia 3 strand polypropylene rope of ordinary grade	Mtr	2.81
23	Erection of BSNL Telephone Poles	Nos.	112.29
24	Construction of Joint Chamber for Joints and Pulling Pit	Nos.	5,614.13
25	Construction of 110 mm PVC pipe cable duc		-
a.	48 ways	R Mtr.	8,421.21
b.	24 ways	R Mtr.	7,017.69
c.	16 ways	R Mtr.	6,315.92
26	Construction of Manhole for Cable Duct	Nos.	1,54,388.88
27	Supply & provision of 110 mm HDPE PN 10 (10 Kgf) pipe through trenchless technology	Mtr.	2,456.19
28	Laying of cables through moling technology (at a depth of 1.75 m)	Mtr.	435.10
29	Shifting of BSNL Pillars	Job	1,54,388.88
CABLE DUCT & MANHOLES			
1	Providing & laying PVC pipes, complete with sockets with cable duct in standard formation or as specified by the Engineer-in-Charge and in alignment maintained by using spacers including jointing with solvent cement solution but excluding the cost of PVC spacers all complete as per BSNL specifications (finished length of pipes shall be measured for making payment) and the rates includes the cost of rodding, cleaning & performing mandrel test and to pass all the checks and tests prescribed in final acceptance testing schedule of BSNL:a) 110mm Outer Dia PVC pipe of 2.5mm wall thickness	mtr.	127.73
2	Providing and fixing Abs thermoplastic spacer 2.7mm thick in any colour other than black as per drawing & shall ensure 50mm gap between pipes as per drawing.		-
a	Double ended Spacer – 4-Ways	Nos.	63.15
b	Single ended Spacer – 4-Ways	Nos.	60.35
3	Providing and fixing Abs thermoplastic expansion plug (110gm. Wt.) in ducts in any colour other than black all complete as per the direction of Engineer-in-Charger and as per BSNL drawing a) 110 mm outer dia pipe.	Nos.	72.990
4	Providing and fixing 5mm thick (165gm.wt.) high density plastic material end caps in ducts in any colour other than black all complete as per the direction of Engineer–in –Charge and as per BSNL drawing a) For 110mm outer dia pipe.	Nos.	2.810
5	Providing and laying 4mm dia 3 strand polypropelene rope of ordinary grade (as per IS:5175-1987) inside the pipe from manhole to manhole as per direction of Engineer-in-Charge.	One Running Meter.	2.810

6	Providing and laying polythene sheet of approved quality and weight not less than 1 Kg. /10 Sqm. As per direction of Engineer-in-Charge. (The overlap shall not be less than 150mm wherever necessary). Polythene sheet to be wrapped all-round duct i/c fixing to the sides of soil by nailing etc. all complete. (Net area of polythene sheet ex. Overlapping) shall be measured for payment	Sq. Meter	21.060
7	Providing & fixing MS channel hot dip galvanized to a minimum coating wt. Of 610 gm./Square meter of size ISMC-75 (wt. 6.80 Kg./Mtr.) including making holes of 14mm dia as desired by the Engineer-in-Charge in both the flanges of the channel for fixing brackets and holes of 17mm dia in the web of the channel at the required 42itumng for fixing the channel to the wall of the manholes with the help of expandable type of 12mm dia, 65mm long stainless steel dash fasteners and hold-in-Anchor bolt of approved size & quality complete as per the direction of Engineer-in-charge and as per drg. The rate includes the cost of channel, dash fastners, bolts, washers, making hole etc. and the labour Involved in all the operations as stated above: a) 1600 mm long.	Nos.	707.390
8	Providing and fixing in Manhole base slab, MS galvanized pulling eyelet of 20mm dia and 1000mm long, fixed in position as per direction of Engineer-in Charge and as per BSNL Drawings.	Nos.	157.190
9	Providing and fixing sump cover assembly consisting of cover frame and grill as per drawing. The sump cover frame shall be manufacture red from 35x35x5mm galvanized MS angle section and shall have clear inside opening of 300x300mm having holdfast of MS flat of size 20x4mm, 150mm long including welding, the cover grill shall be approved factory make and made of steel fibre reinforced concrete of size 340x340x30mm thick and shall have 2mm thick galvanised plate all-round. The random distributed steel fibre shall be provided @ 0.75% by volume of concrete. The fibre shall be of medium tensile steel in accordance with IS 12592 (Pt1-1988).	Nos.	572.650
10	Providing &fixing precast steel fibre reinforced concrete cover and frame for M/H of 690mm. Dia clear opening and shall be of approved factory make as per approved design &drg. Reinforced cement concrete of grade CU.M.0 conforming to IS 456-1978 shall be used and admixture confirming to is 9103-1979 shall be added to concrete mix. The manufacturing process shall be as per IS 12592 (Pt. 1, 1988). The random distributed steel fibre shall be provided at a rate of 0.75% by volume to concrete. The fibre shall be of medium tensile steel in accordance with IS 12592 (Pt 1 1988). The reinforcement as shown in drg. Shall be provided in the frame & cover and the same shall be welded to side lining of the cover. The galvanized MS Plate, Flat and Hooks as shown in the drg. Shall be provided in frame and cover for sidelining and lifting arrangement. The cover shall be able to withstand heavy duty loading conforming to classification HD-20 circular type as per IS-1726-1990. Suitable keyhole and PMT markings sunk cast on covers shall be made	Nos.	1,920.030

11	Providing & fixing locking arrangement for Manhole as per drg. The locking arrangement shall be of galvanized MS Angles, square bars, flats, plate etc. The rate includes cost of materials, welding, drilling, galvanizing & labour for manufacturing and fixing to the Manhole wall etc.	Kilogram.	74.400
12	Painting of Manhole code number with black or red paint over white base, in size of 100mm and 10mm thick at the inside surface of all the opening in Manhole as per the direction of Engineer-in-Charge.	Nos.	61.750
13	Providing and fixing in Manhole walls MS galvanized ladder hooks of 16mm dia and 800mm long fixed in position as per the direction of Engineer-in-Charge and as per BSNL drawing.	Nos.	61.750
14	Providing and fixing steel work welded in built up section cable bearer for manhole/Handhole (including GI nut and bolts) as per drawing including cutting handling upto each manhole and fixing in position all complete as per the direction of Engineer-in-Charge in tees, angles, flats and channels). (The end of the bolts shall be splitted into two parts and spreaded after fixing to avoid reopening and welding shall be continued on both sides. All the above steel sections should be hot dip galvanized confirming to IS standard with minimum thickness of galvanizing conforming to 570gm/sqm. The wt. of section without galvanizing shall be considered for payment.	Kilogram.	80.010
15	Providing and fixing MS galvanized circular frame of 1100mm dia consisting of 75x4mm flat including providing of 3 Nos. (150x15x6mm) MS galvanized lugs including cutting holes in RCC neck, welding lugs to reinforcement and making good the holes with RCC (1:1.5:3) complete as per direction of Engineer-in-Charge.	Nos.	767.730
16	Disposal of surplus excavated materials/earth/rock etc. including loading, unloading and stacking all complete. To the BSNL plot/dumping yard identified by the local bodies irrespective of all leads & lift as directed by Engineer-in-Charge.	Cu.M.	161.410
17	Dismantling of existing M/H & protection for existing OFC / copper cables	nos.	6,912.41
18	Dismantling of existing cable duct & handling of cable including serviceable material & disposal of unserviceable materials	job	13,354.65

Signature of Authorized Signatory
On behalf of Tenderer

SCHEDULE – B

ANNEXURE – B 1

Sub-Head 4 – Tree Cutting and transportation

S. NO.	Item Description	Units	Rate
7.0	Removal and transplanting trees {up to 10KM lead) of girth (measured at height of 1.0M above ground level) including excavation, backfilling, levelling of the ground and, maintenance of tree for period of one year as directed and specified in technical specification.		-
7.1	Up to 30C.M. Girth	No.	26,864.60
7.2	Beyond 30 C M Girth up to and including 50 C.M Girth	No.	41,662.61
7.3	Beyond 50 C.M. Girth up to and including 75 C.M. Girth	No.	67,249.55
7.4	Beyond 75 C.M. Girth up to and including 125 C.M Girth	No.	69,865.54
7.5	Beyond 125 C.M. Girth	No.	89,841.21

Signature of Authorized Signatory
On behalf of Tenderer

SCHEDULE– B

ANNEXURE–B 2

ARCHITECTURAL FINISHING WORKS (NON DSR ITEMS)

SUMMARY

S.NO.	ITEMS	AMOUNT (Rs.)
	ARCHITECTURAL FINISHING WORK	
1	WOOD WORKS	~~6905295.83~~ **2158422.00**
2	GRANITE/STONE/TILE WORKS	~~83584703.66~~ **53418863.69**
3	FLOORING WORKS	~~13536265.01~~ **4700743.00**
4	FINISHING WORKS	~~11894032.03~~ **7165519.00**
5	SUSPENDED CEILING WORKS	~~69366135.77~~ **40571050.00**
6	METAL WORKS	~~70353683.17~~ **29328767.00**
7	GLASS WORKS	~~44153359.4~~ **31066472.00**
8	MISCELLANEOUS WORKS	~~132784343.6~~ **32879284.00**
9	SITE DEVELOPMENT WORKS	~~2793216~~ **4076586.00**
	Total of Schedule-B (Civil, Architectural finishing, External Development including Horticulture works)	~~**435371034.4**~~ **205365706.69**
Note: - The rates are considered for all height, lead and lift etc. unless otherwise specified		

Signature of Authorized Signatory
On behalf of Tenderer

SCHEDULE B

ANNEXURE–B 2

ARCHITECTURAL FINISHING WORKS (NON DSR ITEMS)

S.No.	Item Description	Units	Total Quantity	Rate	Amount (INR)
1	**WOOD WORKS**				
1.1	Providing & fixing Toilet Cubicle (of following standard dimension which includes 600mm door size width) made of heat, bacteria, water, chemical, scratch, impact and anti-bacterial resistant 12mm thick solid compact laminate panels tested in approved laboratory. Finish the compact laminate must be Suede, Raw silk model includes doors, pilasters & intermediate panels finished with approved texture/shade as per the detail drawings & as per IS 2046 (Indian Standard) and as per fire retardant BS- 476/97 standard. This also includes providing and fixing in position necessary hardware made out of Stainless steel (Grade 304) as per manufacturer's specifications & Engineer instructions like (1) Doorknob, (2) Gravity Hinges, (3) Thumb turn lockset with Occupancy indicators, (4) Coat hooks with Door stopper (5) U- Channels, (6) Adjustable foot/pedestal, (7) Top rail (8) Rubber noise deafening tape, (9) Screws & wall Plugs. All screws will of 304 Grade in stainless steel with satin finish. All pilasters are supported by stainless steel Bottom Cladding.				
	- will be anchored to the floor with a clearance height up to 150mm.The top fitting should consist of SS round top rail which will get fixed with pilasters SS wall fixing is used only on the wall which will hold the SS top rail. Note: The Rates includes all necessary Materials, Labour, Tools and plants. Nothing to be paid extra.				
1.1.1	Toilet Cubicle with standard dimension of 2000-2100mm Height x 1000mm Width x 1550mm Depth, which includes 600mm door size width).	No.	~~6~~ **9**	36527.89	~~219167.34~~ **328751.00**
1.1.2	Toilet Cubicle I-Shape (Front Partition) with standard dimension of 2000- 2100mm Height x 1000mm Width which includes 600mm door size width).	No.	~~7~~ **6**	33849.17	~~236944.19~~ **203095.00**

~~1.2~~	~~Providing & fixing storage unit of size (2300mm±100) mm l x (750±50) mm width x 450mm height made of water & termite proof plywood board of thickness (18±1) mm of make: Merino/Century/Greenlam with 1mm thick laminated on both sides of the board of **make: Merino/Century/Greenlam**. The storage unit should have proper binded with edge binder 2mm thick of **make: REHAU or equivalent**. This item is inclusive of all hardwares such as lock of **make: Apco/47ituma or equivalent**, Tower bolt 100mm high of 47itumastic47ed47l alloy of **make: Hettich/apco or equivalent**, hinges and handles of **make: Hettich/apco/kaff or equivalent**.~~ ~~The rate is inclusive of plywood board, laminate stainless steel handle, hinges, edge binder, tower bolt lock and nob (if required) to complete the job. Nothing shall be paid extra.~~	~~Nos.~~	~~15~~	~~68040~~	~~1020600.00~~
1.3	Providing & fixing of workstation of size (1050±100) mm length x (600±50)mm width x 750mm height made of water & termite proof plywood board of thickness(18±1)mm,make: **Merino/Century/Greenlam** as approved by engineer-In-Charge. The work station shall be fixed with by 600mm wide and (18±1)mm playwood board with 1mm thick laminate as approved by engineer-in-charge.All necessary hardwares, hinges, lock, nob etc., is included in this item, nothing shall be paid extra.	Nos.	~~30~~**9**	31090.5	~~932715.00~~ **279814.50**
1.4	Providing & Fixing storage unit of size (1222±100)mm length x (1200±50)mm ~~width~~ **height** x 375mm ~~height~~ **depth** made of water & termite proof plywood board of thickness(18±1)mm, make: Merino/Century/Greenlam as approved by engineer-In-Charge. The rate is inclusive of plywood board,laminate stainless steel handle,hinges,edgebinder,tower bolt lock and nob (if required) to complete the job. Nothing shall be paid extra.	Nos.	~~15~~**12**	40502.7	~~607540.50~~ **486032.40**
1.5	Providing & Fixing side table of size 600mm length x (600±50) mm width x 450mm height made of water & termite proof plywood board of thickness (18±1) mm, make: Merino/Century/Greenlam as approved by engineer-In-Charge.The rate is inclusive of plywood board,laminate stainless steel handle,hinges,edge binder,tower bolt lock and nob (if required) to complete the job. Nothing shall be paid extra.	Nos.	~~24~~**5**	9412.2	~~225892.80~~ **47061.00**
1.6	Providing & Fixing side table of size 1200mm X 600mm made from 19mm thick MDF board of Century make and	Nos.	~~18~~2	19832	~~356976.00~~ **39664.00**

	1mm thick laminate of Merino make as approved by Engineer-in-Charge.				
1.7	Providing fixing and Fabrication of Double skin, wooden partly/fully glazed partitions having base frame Members made from 12 mm thick commercial ply sandwiched with 19 mm thick commercial block board on both side placed at 30-35 cm centre to centre in both direction i.e. horizontal & vertical base, Frame comofladged with 12 mm thick commercial ply on both side covered with 6 mm thick MDF Board Grade – I fixed with decorative high pressure laminated sheet 1.00 mm thick of plain/wood grain in glass/matt/suede finish with high density protective surface layer and reverse side adhesive bounding quality confirming to IS-2046 Type-S including cost of adhesive of approved quality etc. complete as per direction of Engineer-in-charge. (12 mm thick toughened glass glazing with Garwara make film fixed on side to maintain the opacity and 50 X 20 teak wood polished beading shall be paid separately, and area of glazing shall be deducted from overall area of partition for payment purpose.)	SqM	~~150~~**50**	8581.12	~~1287168.00~~ **429056.00**
~~1.8~~	~~Providing & Fixing side table of size (1200±100)mm length x (900±50)mm width x 750mm height made of water & termite proof plywood board of thick ness (18+1)mm, make: Merino/Century/Greenlam as approved by engineer In Charge. The rate is inclusive of plywood board,laminate stainless steel handle,hinges,edgebinder,tower bolt lock and nob (if required) to complete the job. Nothing shall be paid extra.~~	~~Nos.~~	~~15~~	~~25000~~	~~375000.00~~
~~1.9~~	~~Providing & Fixing Almirah of size (1200±100) mmlenght x 1500mm height x 375mm depth made of water & termite proof plywood board of thickness (18±1),~~ ~~**make: Merino/Century/Greenlam**~~ ~~as approved by engineer In-Charge. The rate is inclusive of plywood board,laminate stainless steel handle,hinges,edge binder,tower bolt lock and nob (if required) to complete the job. Nothing shall be paid extra.~~	~~Nos.~~	~~15~~	~~49140~~	~~737100.00~~
1.10	Providing and Supply of double action hydraulic floor spring make DORMA consisting of floor spring & Transom Door Closers, BTS 75 V with spindle insert including cement box and cover plate – EN 1-4, HO 90-degree, Top centres 8062 with needle bearing Door Straps, zinc-plated, 8021 complete as per direction of Engineer-in-charge.	Nos.	~~4~~**6**	9538.59	~~400620.78~~ **57231.54**
1.11	Providing & Supply of DORMA make Locks for Double Action Door assemblies (Universal centre Lock US 20 with EPC & LKP + Universal strike-box GK 50) as per direction of Engineer-in-charge.	SqM	~~4~~**6**	10488.04	~~440497.68~~ **62928.24**
1.12	Providing & Supply of DORMA make Pull Handles in Grade 304 TGDID 350 X 25 S, Satin as per direction of Engineer-in-charge.	SqM	~~2~~**3**	3098.74	~~65073.54~~ **9296.22**
1.13	**Supplying and fixing of single seater sofa with chrome/wooden leg having foam of approved density leatherite tapestry of make and colour/texture and design as approved by the Engineer-in-charge**	**No.**	**10**	**12429.15**	**124291.50**
1.14	**Providing and fixing closed and open storage with lock, Hanging rod with shelves of size 900mmX560mmX2100mm made of water & termite proof plywood board of thickness(18±1)mm with 1mm thick laminate of make: Merino/Century/Greenlam as approved by engineer-In-Charge. The dimension may vary 50 mm both on positive/negative side. The rate is inclusive of labour, plywood**	**No.**	**2**	**45600**	**91,200**

	board,laminate stainless steel handle,hinges,edgebinder,tower bolt lock and nob (if required) to complete the job. Nothing shall be paid extra.				
	Total woodwork				~~6905295.83~~ **2158422.00**
2	**GRANITE/STONE/TILE WORKS**				
Note: All granite slabs shall be selected as per approved sample from Tamil Nadu/ Karnataka/ Madhya Pradesh (Lalitpur)/ Rajasthan (Jhalore) of selected quality, uniform in colour, free from cracks, fissures and flakes with straight edges and perfect corners.					
2.1	Providing and fixing Flamed finish granite stone (bull-nosed)of size 1200 x 600 x 60 mm (thickness) at platform edge level of any approved colour and shade (Lakha red/Jet black or any as approved by engineer-in-charge), (Sample of Flamed Finish Granite stone shall be approved by Engineer-in-Charge) using cement mortar 1:4 (1 cement : 4 coarse sand), laid and jointed with cement slurry and pointing with white cement slurry admixed with pigment of matching shade, including rubbing, curing and polishing etc. Complete as per specification and approved architectural drawings.	SqM	~~525.6~~ **528.00**	5032.67	~~2645171.35~~ **2657250.00**
2.2	Providing and laying Polished Granite stone flooring in required design and patterns, in linear as well as curvilinear portions of the building, all complete as per the architectural drawings, with 25 mm thick Granite stone slab using cement mortar 1:4 (1 cement : 4 coarse sand),laid and jointed with cement slurry and pointing with white cement slurry admixed with pigment of matching shade, including rubbing, curing and polishing etc. all complete as specified and as directed by the Engineer-in-Charge.				
2.2.1	Polished Granite stone slab of lighter colour and shade like Jeerawal White, P- White, etc.	SqM	~~12898.21~~ **9336.00**	~~3559.12~~ **3318.65**	~~45906277.18~~ **30982916.00**
2.2.2	Extra for Darker shade Jet black / Lakha Red or any as approved by engineer-in-charge.	SqM	~~2579.64~~ **1868.00**	609.74	~~1572909.69~~ **1138994.00**
2.3	Providing and fixing 30 mm thick Honed Granite Stone on Staircase treads and landings including bull nosing, (rounding the nose and making groove in tread) of steps not exceeding 32 cm in width of any approved colour and shade (Jeerawal white or any as approved by engineer-in-charge), size and pattern, (sample of granite stone shall be approved by Engineer-in-charge) using cement mortar 1:4 (1 cement : 4 coarse sand), laid and jointed with cement slurry and pointing with white cement slurry admixed with pigment of matching shade, including	SqM	~~1470.67~~ **905.00**	4399.94	~~6470859.76~~ **3981946.00**

	rubbing, curing and polishing etc. as per specifications and relevant architectural drawings.				
2.3.1	Extra for Darker shade Jet black /Lakha Red or any as approved by engineer-in- charge.	SqM	~~735.34~~ **453.00**	609.74	~~448366.21~~ **276212.00**
2.4	Providing and laying 18mm thick mirror polished Granite stone of Darker Shade Jet Black/Lakha Red od any equivalent as approved by engineer in charge in risers of approved colour, size and pattern (sample of granite stone shall be approved by Engineer in charge) over 12mm thick bed of cement mortar 1:4(1 cement:4 coarse sand) and jointed with neat cement slurry mixed with pigment to match the shade of granite stone complete as per specification and relevant drawing.	SqM	~~287.82~~ **291.00**	2639.59	~~759726.79~~ **768120.69**
2.5	Providing and fixing 25 mm thick Polished (Polished up to diamond level and sample should be approved by Engineer-in-Charge) Granite Stone Cladding on Wall of size up to and equal to 1200 mm x 600 mm of any light colour and shade (Jeerawal white or any as approved by engineer-in- charge),using cement mortar 1:4 (1 cement : 4 coarse sand), laid and jointed with cement slurry and pointing with white cement slurry admixed with pigment of matching shade, including rubbing, curing and polishing etc. and should be fixed with Stainless Steel Pins or cramps at all cornices of stones. The Rates include all T&P and materials including Stainless Steel pins or cramps, etc required to complete the job. Nothing shall be paid extra.	SqM	~~768.03~~ **785.00**	4171.48	~~3203821.78~~ **3274612.00**
2.5.1	Extra for Darker shade Jet black / Lakha Red or any as approved by engineer-in- charge.	SqM	~~768.03~~ **450.00**	609.74	~~468298.61~~ **274383.00**
2.6	Providing & Fixing 25 mm thick Polished Granite Coping (Polished up to diamond level and Sample should be approved by Engineer-in-Charge) one side bull-nosed on wall cladding of any colour and shade (jet black/Lakha red or any as approved by engineer-in- charge) using cement mortar 1:4 (1 cement : 4 coarse sand), laid and jointed with cement slurry and pointing with white cement slurry admixed with pigment of matching shade, including rubbing, curing and polishing etc. including Chisel in wall and fixing, Rubbing, Curing ,Moulding & polishing to edge to give high gloss finish etc. complete.	SqM	~~410.97~~ **166.00**	5232.72	~~2150490.94~~ **868632.00**
2.7	~~Providing and laying Sand Blasted Granite stone flooring in required design and patterns, in linear as well as curvilinear portions of the building, all complete as per the architectural drawings, with 25 mm thick Granite stone slab using cement mortar 1:4 (1 cement : 4 coarse sand),laid and jointed with cement slurry and pointing with white cement slurry admixed with pigment of matching shade, including rubbing, curing and polishing etc. all~~	~~SqM~~	~~669.73~~	~~3300.12~~	~~2210189.37~~

	~~complete as specified and as directed by the Engineer-in-Charge.~~				
2.7.1	~~Extra for Darker shade Jet black / Lakha Red or any as approved by engineer-in- charge.~~	~~SqM~~	~~133.95~~	~~609.74~~	~~81674.67~~
2.8	Providing and fixing 30 mm thick Jet Black Granite countertop polished and moulded over 19 mm thick commercial board in TOM, EFO, SCR etc with MS (with primer and 2 coat of enamel paint) carcase, 19 x 3 mm thick teak wood lipping includingall cut-outs/ opening complete in all respect specification and relevant approved architectural drawings. The rates include all materials, Labours, tools, plant and equipment. Nothing shall be paid extra.	SqM	~~37.77~~ **50.00**	5661.92	~~213850.72~~ **283096.00**
2.9	Providing &Fixing of Glass Reinforced Concrete (G.R.C) Jalli 40mm thick in approved size, pattern, design, thickness and color of M/S UniStone make or equivalent to be fixed on/between RCC/Block work Column or Structural Steel work with 'Dry fixing' method with all appropriate steel framework, Stainless Steel (SS –304) 'L' shaped Clamps, dash fasteners and pins including anchoring, lifting, scaffolding etc. Complete as per architectural drawing and manufacture specification The Screens should be made from '53 grade' White Portland Cement manufactured by 'JK Cement' or equivalent, Quartz, Fine Silica Sand, Alkali Resistant Glass Fiber manufactured by 'Saint Gobain' or equivalent, Super Plasticizers manufactured by 'BASF' or equivalent, Polymers manufactured by 'BASF' or equivalent and U.V resistant Synthetic inorganic pigments should be used for pigmentation manufactured by 'BAYFERROX(Germany)' or equivalent. The material casting should take place in Synthetic Rubber/ FRP Mould manufactured by 'Reckli' or equivalent.	SqM	~~1988.79~~ **900**	4243.02	~~8438475.75~~ **3818718.00**
2.10	Providing and fixing dry cladding with 25 mm thick Polished (Polished up to diamond level and sample should be approved by Engineer-in-Charge) Granite Stone with (machine cut edges) of uniform colour and of size up to and equal to 1200 mm x 600 mm of any light colour and shade (Jeerawal white or any as approved by engineer-in-charge) fixed to structural steel framework and/ or with the he of cramps. Pins etc. and sealing the joints with approved weather sealant as per Architectural drawing and direction of Engineer-in-charge. The steel framework. Stainless steel cramps and pins etc. shall be paid for separately under DSR Item).	SqM	~~2304.09~~ **1302.00**	3912.43	~~9014590.84~~ **5093984.00**
	Total sub head Granite/Stone/Tile Work				~~**83584703.66**~~ **53418863.69**

3	**FLOORING WORKS**				
3.1	Providing and fixing access raised floor of light grade of minimum 15 KN/m2 UDL panels manufactured from pressed formed corrosion resistant galvanised steel with total overwrap ofone-piece top, sides and bottom flange encapsulating high performance cementitious board case stitched and with a panel to cater in the size 600 x 600 mm. The panel has to be placed on the pedestal made from all solid steel construction, galvanised plated consisting of stringers, an anti-vibrational head cap with cruciform upstands and four panels locating studs, positively clipped pedestal clipped to the steel base plate. The pedestal cap shall have an electrical conductor plate for dissipation of static electricity. The steel base plate of the pedestal shall be fixed on the sub-floor with Epoxy pedestal adhesive and/or mechanical fixing with fasteners (8mm X 75mm). The Access floor should be able to take a point load of minimum 2.5 KN over 25 mm sq. and UDL of minimum 15 KN/sq. mtr. The panel shall be finished with high abrasion, anti-static HPL of formica colour Y606 having fire rating as per BS 476 clause 5, 6 & 7 complete as per specifications				
3.1.1	Up to 450mm high cavity floor	SqM	~~629.80~~ **360.00**	3774.55	~~2377211.59~~ **1358838.00**
3.2	Providing and fixing of Tactile **indicator made from SS-304 grade stainless steel with mirror finish**. This Tactile should be rich / best quality. All the indicators shall be installed into correctly drilled holes and place using suitable adhesive. All the indicators shall be aligned properly. Note: - The rates include all materials, Labours, tools, plant and equipment.Nothing shall be paid extra.				

3.2.1	**Warning Tactile indicator –** Shall be installed on the walking surface in a raised grid pattern of 'dots or studs. They shall be placed at centre to centre placing of 61mm, measured along one side of a square arrangement. Minimum10 studs to be placed in direction perpendicular to the direction of travel. Size – 35mm dia. X 4.5mm ht Underside -10mm dia stem.	~~Each~~ **No**.	~~210~~ **100**	88.42	~~18568.20~~ **8842.00**
3.2.2	**Directional Tactile indicator – They** shall be installed on walking surface, consisting of series of raised bar, oriented in line with direction of travel as per approved drawing. Min 4 bars to be placed in direction perpendicular to distance of travel. Size – 35mm wide x 4.5mm high x 288mm long Underside-3x15mm,	~~Each~~ **No.**	~~300~~ **100**	469.77	~~140931.00~~ **46977.00**
3.3	Providing and fixing heavy duty vitrified tiles of thickness between and equal to 15 mm to 17 mm on floor of any colour and shade as approved by Engineer-in-Charge. The tile should be fixed with chemical adhesive of approved make (BAL Endura/Duo-Bond / Laticrete Baber of diamond rated). The floor tile should be used with minimum gap by using spacer and the gap should be properly grouted with transparent epoxy				
	grout of make (BAL Endura / Duo-Bond / Laticrete Baber of diamond rated), complete in all respect and as per specification and relevant architectural drawings. Before laying of the tile the Contractor should prepare smooth surface with level and gradients required for drainage system, well-coordinated with cable trenches, raceways, hume pipe and any utility as per approved combined services drawings and should take approval from Engineer-in Charge. The rates include all materials (Heavy duty tile, Chemical Adhesive, epoxy grout, spacer and any if required), Labours, tools, plant and equipment surface preparation include free from efflorescence, laitance, dirt and other loose material. Nothing shall be paid extra.				
3.3.1	Heavy Duty **Ceramic** Tile (Size: 1200 mm x 100 mm) of Yellow Colour	SqM	~~85.8~~ **96.00**	2175.73	~~186677.63~~ **208870.00**
3.4	Providing and Laying of Foam Concrete under Raised Floor as /of density 1200kg/cum.	Cum	~~70.88~~ **57.00**	4152.08	~~294299.43~~ **236669.00**

3.5	Supply &fixing homogeneous & abrasion resistant Vinyl flooring 1.6mm thick of desired shade& in desired patterns, in TER, SER and S&T using suitable adhesive to give smooth & even floor with all labour, materialetc as required for proper completion of work.	SqM	~~496.05~~ **544.00**	517.42	~~256666.19~~ **281476.00**
~~3.6~~	~~Providing and laying 10mm thick marble chips flooring rubbed and polished to granolithic finish with Epoxy terrazzo complete as per detailed drawings, fixing as per prescribed application guidelines to correct line, level and plumb, complete in all respects and up to satisfaction of the Engineer-in-charge.~~	~~SqM~~	~~669.73~~	~~4714.46~~	~~3157415.30~~
3.7	Providing and laying Engineered Quartz stone 20mm thick in approved areas in flooring, in desired size with 3 mm epoxy grout, under tile primer at backside at all sides complete as per detailed drawings, fixing with approved quality compatible adhesive conforming to Type-2 Adhesive as per IS 15477:2004/ C2TES1 conforming to EN 12004:2017 standard as per prescribed application guidelines to correct line, level and plumb, complete in all respects and up to satisfaction of the Engineer-in-charge.	SqM	~~514.8~~ **320.40**	6286.34	~~3236207.83~~ **2014143.00**
3.8	Providing and fixing of Tactile indicator made from Polyurathene (PU) with high luminance contrast, High UV Stability, impact and abrasion proof and provide an anti slip surface. This Tactile should be rich / best quality. Tactile tiles to have self adhesive backing based on peel and stick technology and to achieve seamless and precise installation on a smooth surface. All the indicators shall be aligned properly. Note: - The rates include all materials, Labours, tools, plant and equipment.Nothing shall be paid extra.				
3.8.1	Tactile Tiles – Strips type. Directional Indicator of size 300 x 300 x 7 mm	SqM	~~469.56~~ **90.00**	4036.5	~~1895378.94~~ **363285.00**
3.8.2	Tactile Tiles – Studs type. Warning indicator of size 300 x 300 x 7 mm	SqM	~~126.32~~ **45.00**	4036.5	~~509890.68~~ **181643.00**
~~3.9~~	~~Designing, Providing and fixing 'Motif' at floors of metro stations using Italian Marble and granite stone of approved color& thickness 30 mm. Patterns and sizes as approved by UPMRC to create approved Motif. The scope of work includes (but not limited) surface preparation, cutting, making approved pattern, laying, with all type of material and labour, etc complete as approved by UPMRC. Payment shall be made as per the sqm area of the motif laid.~~	~~SqM~~	~~54~~	~~27092.93~~	~~1463018.22~~

	Total sub head Flooring Works				~~**13536265.01**~~ **4700743.00**
4	**FINISHING WORKS**				
4.1	Applying two coats (maximum 8 SqM/litre per coat with minimum 125-micron wet film thickness per coat) of two-part, high build, solvent free water emulsified epoxy resin based anti-dust concrete sealer coating on fair-faced block work/brick work and concrete surface inclusive of surface preparation over primer coat/initial coat as per manufacture's recommendation. All complete as per specification.	SqM	~~40167.75~~ **39230.00**	151.02	~~6066133.61~~ **5924515.00**
4.2	~~Designing, fabricating, testing, installing and fixing in position Curtain Wall with Porcelain Tile Panel Cladding, with open grooves for linear as well as curvilinear portions of the building, for all heights and all levels etc. including:~~				
	~~(a) Structural analysis & design and preparation of shop drawings for pressure equalisation or rain screen principle as required, proper drainage of water to make it watertight including checking of all the structural and functional design.~~				
	~~(b) Providing, fabricating and supplying and fixing panels of Porcelain tile panel cladding in pan shape of approved shades made out of 3mm thick Porcelain Tile Panel material using stainless steel screws, nuts, bolts, washers, cleats, weather silicone sealant, backer rods etc.~~				
	~~I The fastening brackets of Aluminium alloy 6005 T5 / MS with Hot Dip Galvanised with serrations and serrated washers to arrest the wind load movement, fasteners, SS 316 Pins and anchor bolts of approved make in SS 316, Nylon separators to prevent bi- metallic contacts all complete required to perform as per specification and drawing The item includes cost of all material & labour~~				

	~~component, the cost of all mock ups at site, cost of all samples of the individual components for testing in an approved laboratory, field tests on the assembled working curtain wall with Porcelain Tile panel cladding, cleaning and protection of the curtain wall with porcelain tile panel cladding till the handing over of the building for occupation.~~				
	~~Base framework for Porcelain Tile panel cladding is payable under the relevant aluminium items. The Contractor shall provide curtain wall with Porcelain Tile panel cladding, having all the performance characteristics all complete, as per the Architectural drawings, as per item description, as specified, as per the approved shop drawings and as directed by the Engineer-in-Charge. However, for the purpose of payment, only the actual area on the external face of the curtain wall with Porcelain Tile Panel Cladding (including width of groove) shall be measured in SqM. Up to two decimal places.~~	~~SqM~~	~~398.42~~	~~4156.26~~	~~1655937.11~~
4.3	~~Providing and fixing 15 mm thick engineered marble cladding (engineered marble sample as approved by engineer-in-charge) of size upto and equal to 1200mm x 3000mm of colour and shade as approved by engineere in charge. The engineered marble cladding shall be on MS Frame with stainless steel clamps/pins as approved by engineer-in-charge. The item includes engineered marble stone, SS clamps/pins etc. but not inclusive of MS framework. The rate includes all materials, labour, tools, plant and equipment. The cost of MS framework shall be paid extra under relavant DSR-2021 item.~~	~~SqM~~	~~695.6~~	~~4525.88~~	~~3148202.13~~
4.4	Providing and painting DECO PU paint of approved brand and shade over M.S Structure two or more coats to give an even shade, including one coat of primer, preparation of surface using automotive putty, thinner etc. surface duly emery papered to give a perfectly smooth and even prepared surface before painting etc. complete in all respect as per satisfactionof Engineer-in- charge. The rates include all materials, Labour, tools, plants and equipment. Nothing shall be paid extra on this item.	SqM	224	2335.57	523167.68

4.5	Ceramic coating over glass/SS sandwiched panels/ metal sheets/ tiles etc. designed as desired and using ceramic coating on toughened glass to achieve any colour and shade as approved by engineer-in-charge on toughened glass of any thickness. Printing shall be smooth/ textured as directed by the engineer-in-charge. It is including the cost of transportation, loading and unloading etc complete as per architectural drawing and direction of Engineer in Charge.	SqM	353.94	1414.34	500591.50
4.6	**Providing & Laying "Resin based Epoxy" flooring of 3mm thickness on concrete surface. The scope includes but not limited " Providing and applying a 200 micron thick primer two component (Epoxy Resin: 100 P.B.W. (ASTM – D-1544, 5478, 1652) and Epoxy Hardener: 100 P.B.W. (ASTM – D-1544, 5478, 2073) non fillerised Epoxy material over a concrete surface prepared after proper grinding by equipment to remove loose particle, contamination and 57itumast to provide a sound gripping surface." The Epoxy primer has to ensure the excellent penetration and sealing of concrete as per the relevant drawing and specifications and under the directions of engineer-in-charge. The rates include all materials, tools, plant and equipment. Nothing shall be paid extra.**	**Sqm**	**300**	**724.15**	**2,17,245**
	Total sub head FINISHING Works				**~~11894032.03~~ 7165519.00**
5	**SUSPENDED CEILING WORKS**				
5.1	**PERFORATED METAL PANEL CEILING**				

	Providing and installing suspended ceiling system at all levels with interlocking grid of size 1200x600mm ceiling module of size (1250x600) consisting of demountable infill units (size 1200x600x1.2mm) having 50mm gap at every 1200mm, gap covered with 82mm wide channel having flanges to hold ceiling panels. The panels and channels shall be made from 1.2mm thick GI sheet, punched and bent to shape. The panels shall have perforated area 30-40%. The ceiling shall be powder coated (PPC, 80 micron) on exposed and unexposed surface with approved colour. The grid system shall include hangers and runners of size 50x50x3mm thick hot dip galvanised steel, fixed on soffit of slab with the help of stainless steel expansion fasteners of size 10x75mm (Tam Anchor), The ceiling system to include panels, hanging system including the cost of providing opening and electrical fittings/fixtures, secondary supporting system for opening and below cable tray and duct, access to maintenance, all complete as per requirement of Engineer-in Charge.	SqM	~~1436.45~~ **5724.00**	4054.44	~~5824000.34~~ **23207615.00**
5.2	Providing and fixing vertical baffle ceiling system comprising of baffles 50 mm wide & 150mm Height, installed at 150mm C/C distance manufactured from 0.6mm GI sheets, Baffle ceiling are supplied with the end cap matching the similar finish of baffle. Tolerances according to TAIM, DIN EN 13964 and quality controlled to ISO 9001:2008 approved by TUV. Substructure for Vertical baffle ceiling system consisting of U-shaped galvanised mounting rail carriers 1.5mmThick installed perpendicularly to U 1040 form punched angles at maximum 1200mm centres using cross connectors. The primary profiles must be connected to one another with longitudinal splice connectors. The entire ceiling module shall be suspended with 6mm diameter galvanized steel threaded rods from the true ceiling officially approved anchor fasteners maximum at 1200mm Centres as per the requirements of DIN EN 13964 and the statics of the system. Ensure horizontal and flush alignment during installation. Finishes of vertical baffle ceiling system: RAL powder coated finish of 60 microns thick coating. No Pre-Coated products shall				

	be accepted. Note: The rates include all materials, Labours, tools, plant and equipment. Nothing shall be paid extra.				
5.2.1	**Linear baffle ceiling**	SqM	~~9331.82~~ 2550.00	6809.19	~~63542135.43~~ **17363435.00**
	Total sub head Suspended Ceiling Works				~~69366135.77~~ **40571050.00**
6	**METAL WORKS**				
6.1	Providing and fixing Prefabricated MATTE FINISH, of height (900 mm to 1100 mm) Stainless Steel hand railing of50 mm OD (outer dia) Stainless steel Grade 304, 3.15mm thick. 25mm dia jointing pin, SS Spider fittings, SS base plate, pipe' adjuster M16X200mm, SS fasteners for fixing railing in floor/ staircase by cutting hole of required dia covering with SS- cover plate complete in all respect with 1 No. 12mm thick toughened glass and fixed with SS brackets with all necessary fitting and making good the flooring as per Specifications and relevant Architectural Drawings. The rates include all materials including fasteners, Labours, tools, plant and equipment. Nothing shall be paid extra. Note: This item should be used only for prefabricated railing of approved make.	Rmt	~~695.66~~ **574.80**	11932.44	~~8300921.21~~ **6858767.00**
6.2	Supplying, fabricating, MATTE FINISH, erection of 900 to 1100mm high SS handrailing as per design comprising of 50mm dia, 3.15mm thick, Stainless-steel Grade 304 with balustrades as per drawing, SS base plate, pipe adjuster M16X200mm SS fasteners for fixing railing in floor by cutting hole of required	Kg	~~7456.00~~ **7620.00**	566.2	~~4221587.20~~ **4314444.00**

	diain floors/ landing/staircase complete in all respect and making good the floors as per Specifications and Architectural Drawings.				
6.3	Supplying, fabricating, MATTE FINISH, erection of required height (900 to 1100 mm) SS handrailing as per design comprising of 50mm OD Stainless steel Grade 304, 3.15mm thick. 25mm dia jointing pin, SS Spider fittings, SS base plate, pipe' adjuster M16X200mm SS fasteners for fixing railing in floor/staircase by cutting hole of required dia covering with SS- cover plate complete in all respect with 1 No.12mm thick toughened glass and fixed with SS brackets and hinges and making good the flooring as per Specifications and relevant Architectural Drawings.	Kg	~~10434.9~~ **9000.00**	566.2	~~5908240.38~~ **5095800.00**
~~6.4~~	~~Providing, Designing and making Shop Drawings, Fabricating, Polishing & Erection of Required Height and Shape of SS Grade 304 satin finish pipe/ tube Structure for the entry as per design, including fixing to concrete with provision for concealed rainwater disposal and concealed conduits for lighting complete, with non-shrink grout, high Tensile Anchor bolt in each pipe/ tube as per structure requirement with Jointing asper architecturaldrawing.~~	~~Kg~~	~~51076.95~~	~~566.2~~	~~28919769.09~~
~~6.5~~	~~Providing fixing, Polishing & Erection of Required Height, Shape and Designing Comprising of 3 mm thick SS Grade 304 Sheet Cladding Over RCC Column on Aluminium Base frame of 25x35x5mm &450 mm, width Perforated (6mm perforations @ 12mm c/c) SS Grade 304 Matte Finished Sheet fixed on Frame 2- nos of 50mm SS Grade 304 Dia Concentric Pipe, Bracing of 2 rings with 12 nos of 50 mm SS Grade 304 Dia pipe fixed on to the RCC Column with 3 nos. of 20 mm thick Arched shape Plate to support the Frame as per Architectural Drawing (for payment purpose only SS item shall be measured. Aluminium frame shall be paid extra as per NDSR item no.6.15.~~	~~Kg~~	~~7650~~	~~629.1~~	~~4812615.00~~
6.6	Providing & Fixing SS Grating with 3mm thick 304 Grade SS pressed plate with 6mm wide slits @ 15mm c/c with 35mm X 35mm X 5mm SS grade 304 tube section welded all around edges and at suitable interval for support, flushed with Floor finish including providing& fixing necessary MS angle frame etc.				

	complete as/Drawing (for payment purposes only SS item shall be measured).				
6.6.1	300mm X 6300mm, 300mm X 4200mm	Kg	~~533.75~~ **370.00**	566.2	~~302209.25~~ **209494.00**
6.7	Providing and fixing SS Grating with 3mm thick 304 Grade SS pressed plate with 6mm perforation and 12mm c/c over grade 304 SS frame of size 35mmX35mmX5mm flushed with floor finish including providing and fixing necessary MS angle frame etc. complete as perdrawing (For payment purpose only SS item shall be measured).				
6.7.1	300mmX300mm	Kg	~~266.75~~ **244.25**	566.2	~~151033.85~~ **138294.00**
6.8	Fabricating and supply of stainless steel (conforming to grade SS 304 satin finish) four-seater bench without backrest as per drawing.	Kg	1125	487.05	547931.25
6.9	Designing, providing, fabricating, transporting, erecting and securing in position MS (including finishing with primer and enamel paint) structural steel work for Equipment Opening in Underground Station Ancillary buildings complete as per specifications, approved shop drawings and /or instructions. Work under this item would generally cover all structural steel work including but not being limited to, beams, rafters, purlins, runners for cladding, brackets, bracings, etc, (but excluding roof sheeting) Work to include all intermediate stages of activities not defined herein, but otherwise implied for total completion of work and structure should be detachable for maintenance and cleaning purpose. Cost to include but not be limited to, all materials including wastage, all consumables, fasteners of all types for both temporary and permanent stages of work, all temporary stays, labour, temporary works including staging, scaffolding, tools, plant and equipment, and costs of all incidentals and necessary testing of material, workmanship etc as per specifications.				
6.9.1	Opening for Equipment in U.G stations, including roof rafters, purlins, runners, etc.	Kg	2250	88.30	198675.00

6.10	Fabrication, supply and erection of Hot dip galvanized MS channel cover plate, fabricated from 6mm thick MS chequered plate fixed over cleats, stiffeners, runners using 40X40X6 mm Msangle grouted in position etc completeas per directions of engineer-in-charge (only 6 mm galvanized chequered plate is covered under this item. Other items shall be paid by weight separately.)	Kg	2250.00	100.65	226462.50
6.11	Motorise Rolling Shutters				
6.11.1	Providing and fixing Automatic Galvanized Industrial Motorized Rolling Shutters with grills for ventilation (heavy duty) made out of approved make, required size and shape with G.I. guides control box drive unit, bracket plate, mortar and with all other necessary accessories complete in all respect as instruction of Engineer-in-charge. Note: The rates include all materials, labours, tools and plant, equipment etc. Nothing shall be paid extra for this item.	SqM	~~213.45~~ **225.00**	~~22767.73~~ **20676.53**	~~4859771.97~~ **4652219.00**
6.12	Providing and fixing door with shutter fabricated from18 gauge thick galvanised steel sheets press formed to provide a 46mm thick fully flushed double skin door with lock seam joints at stile edge and infill insulation kraft core. Door frames 57x120 mm 62itumas. to be single rebated made of 16-gauge galvanised steel. Door shutter and frame to be primered in stoving grade epoxy zinc phosphate primer and finished in aliphatic grade U.V. resistance polyurethane paint. Door shutter and frames to have all hardware preparations, pre punctured at the factory all complete with and including filling of door frames with P.C.C. 1:5:10 (1 cement: 5 aggregates: 10 coarse sand).				
6.12.1	Single leaf door shutter	SqM.	~~142.96~~ **134.00**	5032.82	~~719491.95~~ **674398.00**
6.12.2	Double leaf door shutter	SqM.	~~223.95~~ **219.00**	5032.82	~~1127100.04~~ **1102188.00**
6.12.3	Extra for 250 x 150 mm vision panel with 6mm thick clear toughened glass.	No.	~~128.00~~ **130.00**	1195.3	~~152998.40~~ **155389.00**
6.12.4	Extra for provision of air transfer grille appx. 400x400 mm	No.	~~45.00~~ **9.00**	1321.12	~~59450.40~~ **11890.00**

6.12.5	Heavy Duty Door Closer	Each	~~128.00~~ **130.00**	1384.02	~~177154.56~~ **179923.00**
6.12.6	Eurofile Mortice lock -240 with double pin cylinder having master arrangement and ss handles	Each	~~64.00~~ **67.00**	2642.23	~~169102.72~~ **177029.00**
6.12.7	Concealed SS finish tower bolts (300mm)	Each	~~128~~ **130.00**	176.15	~~22547.20~~ **22900.00**
6.12.8	Magnum or equivalent make SS 4 Ball Bearing hinges	Each	~~128~~ **130.00**	88.07	~~11272.96~~ **11449.00**
6.12.9	SS handles Dorma or equivalent make for double leaf door	Each	~~64~~ **67.00**	566.2	~~36236.80~~ **37935.00**
6.12.10	Dorma or equivalent make Panic Bar for Double leaf door	Each	~~23~~ **27.00**	18118.15	~~416717.45~~ **489190.00**
6.12.11	Installation Charges	SqM	~~366.91~~ **351.75**	692.01	~~253905.39~~ **243415.00**
6.13	Providing approved galvanized chicken wire mesh (24-gauge 12mm size) to junctions of concrete and masonry work and other locations were called for including cutting to required sizes side laps of minimum 75mm and fixing in position with galvanized wire nails as approved complete.	SqM	101	61.21	6182.21
6.14	Providing and fixing MS tube of approved size by welding etc for substructure for panels, screens etc including applying a priming coat of approved steel primer and fixed with dash fasteners complete.	Kg	2265	123.51	279750.15
6.15	Providing and fixing aluminium mill finish sub framework with extruded built up standard tubular sections of approved make conforming to IS: 733 and IS: 1285 fixed with raw plugs and stainless-steel screws etc.	Kg	1433	430.24	616533.92
~~6.16~~	~~Supply and fixing of aluminium alloy roof sheeting including concealed fixing. The general roof construction shall comprise: Top layer profiled sheeting manufactured from aluminium self-supported standing seam roof system manufactured from aluminium alloy (AlMn1Mg1) as specified in BS EN 485 – 2:1995), minimum material thickness of 0.9 mm and Fluorocarbon PVDF finish on the exposed surface. Including Clips, Accessories, Fasteners and Top hat.~~	~~SqM~~	~~1085~~	~~4403.72~~	~~4778036.20~~
6.17	Providing and fixing of Steel **/ Copper composite panel** at required height, shade and size. Steel / Copper composite panel consisting of 4 mm thick sheet having 3.2 mm FR plastic core sandwich between two skins of 0.4 mm copper/ Stainless Steel Sheet / Panel on Wall /Column. The Copper composite panel /Steel composite Sheet should be cut and bend to required size / shade and shall be fixed	SqM	~~353.94~~ **354.00**	8696.35	~~3077986.12~~ **3078508.00**

	on Aluminium frame which in turn shall be supported on wall / column structure in station building with necessary sleats and screw as approved by Engineer-in-Charge. The aluminium frame shall be fabricated from 25 mm x 35 mm x 2.5mm thickness extruded tubes. The rates include all materials, (but not limited cost of aluminium frame, steel / copper composite panel, cleat, sealant, all necessary fixture, Labour, tools, plantsand equipment and any if required to complete the work. Nothing shall be paid extra.				
	Total sub head Metal Works				~~**70353683.17**~~ **29328766.00**
7	**GLASS WORKS**				
7.1	Providing and installing fixed glazed security wall assembly of stainless steel to ticket offices. With specified fixings and finish using 2 sheets of 6mm thick toughened glass with nominal gap silicone sealant joints. Glass shall be clear, toughened and laminated with 1.52mm thick polyvinyl butyral layer- all complete as per relevant architectural drawings and specification with cut out & holes.	SqM	~~181.61~~ **270.00**	6914.42	~~1255727.82~~ **1866893.00**
7.2	FIRE RATED PARTITION-1837mm X2400mm				

7.2.1	Providing and fixing of tested 120 minutes fire rated-integrity and radiation control (EW120)- fully glazed non-load bearing fixed partition system at SCR and Lift. The glass should be door lite 0f 11mm clear 120-minute fire rated and partially insulated (EW120), non-wired toughened glass having a sound reduction of greater than 37 db, LT of 86% and compliant to class 2B2 category of impact resistance as per EN 12600. The glass should be manufactured in UL &TUV audited facility and including UL-EU certification. The system is tasted as per EN1364-1999 or equivalent in Efectis Nederland BV, any other reputed laboratory. The profiles are manufactured from 2mm galvanised steel sheet pressed formed to a profileof thedimension of 60X70(overall dimension in mm) as per test evidence. The profile has to be fixed to the supporting construction by means of M10X120 or bigger steel bolt at every 150mm from the edges and every 500mm(65itumas.) c/c. Powder coating shade as proved by architect. The glass should be held in its place with the help of min 1.6mm GI beading which can be clamped or bolted to the profile by 4mm X35mm steel screws at every 25 mtr c/c and a ceramic tape of the c/s of5mmX20mm as per the test evidence. A 2mm ceramic paper should be put all around the perimeter of the glass. The glass panes are to be supported on non-combustible 5mm calcium silicate setting blocks. The max glazing size cannot be more than 1100mmX 2200mm(2.42SqM) in total area as per the test certification.	SqM	~~317.73~~ **360.00**	28286.75	~~8987549.08~~ **10183230.00**
	Sub Total Amount (For partition)				
7.2.2	Installation	SqM	~~317.73~~ **360.00**	1414.34	~~449378.25~~ **509162.00**
7.3	Providing & installing Fixed glazed wall assembly with specified fixing & finish using of 2 sheets 6mm thick toughenedglass with nominal gap silicon sealant joint. Glass shall be clear, toughened and laminated with 1.52mm thick polyvinyl butyral layer, Glass held with SS patch fitting – all complete as per	SqM	~~305.53~~ **48.00**	6030.02	~~1842352.01~~ **289441.00**

	relevant architectural drawings and specification with cut out & holes.				
7.4	Providing and fixing of toughened laminated glass door in EFO (6mm + 1.52mm + 6mm) including stainless steel door handles, deadlock and Floor spring complete necessary cutting in graniteflooring for housing of floor spring as /drawing	SqM	~~19.95~~ **23.00**	8040.04	~~160398.80~~ **184921.00**
7.5	Providing and fixing in position frameless glass partition walls made out of 12mm thick toughened clear float glass held in position by wall connecting profile (with or without open able glass door made out				
	(i) Two Set of 350mm long pull handles of approved make				
	(ii) Two number corner locks US10 of approved make				
	(iii) Floor spring BTS-80 of approved make.				
	(iv) Lock keeper Plate stainless steel strip at the bottom of doors for doors exceeding 1100mm with openable Door (Double Leaf).	SqM	~~202.94~~ **203.00**	8957.47	~~1817828.96~~ **1818366.00**
7.6	Providing and fixing structural glass assembly of glazed smoke down stand using 2 sheets 6mm thick toughened glass with nominal gap silicon sealant joint. Glass shall be clear, toughened and laminated with 1.52mm thick polyvinyl butyral layer, as per specification and grade 304 stainless steel of hairline finish assembly fixing on bolted patch plate & SS Spider Fitting with counter sunk screw including down hang galvanised bracket support from structural slab	SqM	~~477.58~~ **109.00**	12257.59	~~5853979.83~~ **1336077.00**

	using approved anchor as shown in the detailed drawing, including providing and fixing Rock Wool packing with 12mm thk calcium silicate board as per specification from 1500 to 2000 mm height above false ceiling and bottom edge finished with 3mm grade 304 SS pressed plate as per relevant architectural drawing, for fire separation.(for payment purposes area of glass only shall be measured).				
7.7	Providing and fixing 8mm thick toughened glass on wall with stainless steel spider fitting and on glass back side Translucent film of approved shad the vinyl should be 2-mil thick with or without adhesive: 3 to4 mils (0.08 to 0.1mm) long-term cast vinyl films with a synthetic lay flat liner that is not affected by water or humidity. The film should be plotter cutted as per the approved design. Warranty to be given by vinyl company for 5 years.	SqM	~~1499.2~~ **1500**	7549.23	~~11317805.62~~ **11323845.00**
7.8	Providing and fixing toilet mirror in 6 mm thick clear float glass with bevelled and polished at edge, fixed on wall with 6mm thick hard board backing fixed to wooden cleats with 8mm dia 38mm long stainless-steel stud complete.	SqM	~~16.81~~ **17.00**	2190.9	~~36829.03~~ **37245.00**
7.9	Providing & fixing 8mm thick toughened glass on wall with glued fitting and on glass back side Translucent film of approved shade the vinyl should be 2-mil thick with or without adhesive: 3 to 4 mils (0.08 to 0.1 mm), long- term cast vinyl films with a synthetic lay flat liner that is not affected by water or humidity. The film should be plotter cutted as per the approved design. Warranty to be given by vinyl company for 5 years.	SqM	~~240.75~~ **300**	7549.23	~~1817477.12~~ **2264769.00**
7.10	Providing and fixing 12 mm thick toughened glass glazing in double skin wooden partitions of approved brand and manufacture, including Garware, 3M or equivalent make sparkiling film on one side of glass to maintain the opacity with the help of 50x12 mm thick second-class teak wood polished beading in approved shade all completes as per direction of enginner in charge (50x12 mm thick second-class teak wood polished beading shall be paid 67itumastic)	SqM	~~105~~ **30**	3995.59	~~419536.95~~**119868**

7.11	Providing and fixing of 4 mm thick annealed GRIHA rated lacquered glass of color and shade approved by Engineer-in-Charge. The glass should be fixed with compatible neutral core silicon / lacquered glass compatible double-sided tape (SGG CLASSMATE PRIMAF1X) on a perfectly 68itumast 12mm thick waterproof plywood / MDF / Mineral fibre board of approved make which is mounted on the RCC work / Block work / Brick Work / MS Frame as per Site. The Silicon / tape should not react with coating on glass & render even color tone when viewed from glass side. The Lacquered glass must be made industrially; must be opaque, coated with PU lacquer (minimum 60 micron thick or more); highly durable; humid resistant, The gap between RCC work/block work/ brick work/MS frame and Lacquered glass should be fixed with powder coated aluminum tube, channel of colour and shade approved by Englneer-in-Charge.The cost of aluminim work and MS frame as stated above shall be paid extra as per relevant DSR 2021 item. The rate is inclusive of providing and fixing 12 mm thick waterproof plywood/ MDF / Mineral fibre board of approved make, all requied holes, any grinding, beveling, Polishing, necessary accessories, materials, labour, tools and plant etc.	SqM	~~251.76~~ **133.00**	5322.63	~~1340025.33~~ **707910.00**
7.12	Extra for providing 6 mm thick annealed GRIHA rated lacquered glass in place of 4 mm thick lacquered glass as mentioned in item no 7.10	SqM	~~251.76~~ **133.00**	1277.43	~~321605.78~~ **169898.00**
7.13	Extra for providing 8 mm thick annealed GRIHA rated lacquered glass in place of 4 mm Thick lacquered glass as menlioned in item no. 7.10	SqM	~~251.76~~ **133.00**	1916.14	~~482407.41~~ **254847.00**
7.14	~~Extra for using ceramic cooled opaque, highly durable, humid resistant, toughened glass of color and shade approved by Engineer-in-Charge Instead of annealed lacquered glass as staled in item no.7.10/7.11/7.12. The fixing arrangement and other requirement shall be same as staled in item no 7.10.~~	SqM	~~251.76~~	339.44	~~85457.41~~
7.15	~~Automated Sliding Glass Doors~~				

7.15.1	~~Motorized Telescopic Sliding Door Bidirectional as approved by Engineer-in-Charge for 8000mm clear space available for installation to achieve clear opening of 5000x2400mm. With One Fixed Leaf on each side + One Fixed leaf on top + Two Movable Leaf on each side. Two Movable Leaf (1250+1250) mm (W) x 2400mm (H)on each side. Movable Leaf Panel made of 10mm frameless toughened glass – Fixed leaf 1500mm (W) x 2400mm (H) on each side. Fixed leaf 8000mm (W) x 350mm (H) on top – Fixed Leaf Panel made of 10mm toughened glass encased in heavy duty aluminum door sections duly powder coated or color anodized. European make top mounted actuator with Pair of Microwave radar and Built-in photocells. Including an Additional single station push button for station control room. M.S Support structure – made of 150x150x4mm MS Pipe finish with two coats of polyurethane spray paint over one coat of epoxy primer. The rates include all material, labour, T&P etc. Nothing shall be paid extra.~~	~~Nos.~~	~~6~~	~~1327500~~	~~7965000.00~~
	Total sub head Glass Work				~~44153359.40~~ **31066472.00**
8	**MISCELLANEOUS WORKS**				
8.1	**Extra for galvanising over structural steel** as per the drawings & Specifications etc complete in all respect	KG	~~2138.58~~ **2964.00**	12.19	~~26069.29~~ **36131.00**
8.2	Providing, supplying, erecting and fixing in position 3mm thick polycarbonate sheets of approved texture and color. Cost to include jointing, sealing with Butyl adhesives and takes as per manufactures specifications and cover all cost of labour tools, plants, temporary works etc all complete.	SqM	30	2516.41	75492.30
8.3	Providing 10 mm thick multiwall, IR/UV obstructing Polycarbonate sheet roofing including curved surface, cutting to size and shape wherever required as per detailed drawing, and fixing to structure as described under item 1.9 or elsewhere, with bolts and nuts 8mm	SqM	30	2768.05	83041.50

	diameter with washers and other accessories complete.				
8.4	Providing and fixing 12mm thick vanity counters/ledges for W.C and Urinals of solid acrylic material over 12mm external grade ply with all necessary framework, fasteners etc. complete.	SqM	~~13.7~~ **14.00**	8807.44	~~120661.93~~ **123304.00**
8.5	Providing, making connections to appropriate bulk services and fixing sensor-based urinal, European type water closet, Indian typewater closet, health faucet, shower, stainless steel soap dispenser, stainless steel towel rail, stainless steel grab bar/support rail, stainless steel toilet paper roll holder, hand dryer, china ware urinal partition etc all complete as per specificationsand relevant drawings. The items shall be selected by the engineer-in-charge and 20 % extra shall be payable over the purchase invoice rate.	L.S.	3	1258205.5	3774616.59
8.6	Providing and fixing composite assembly of solar tube size of the tube 500mm- 100mm dia, for harvestingand delivery system of sunlight consist of rigid aluminium tubing uses 420 micro finelayersof acrylic for a 99.7% reflective surface with only 0.3% light loss for reflection. Domes are made from UV absorbing, impact sunlight from all angles down into the tube, the dome also features a moisture control system, allowing any trapped moisture to escape. Interior to be fitted with fine rated with fire rated diffuser fitted in solid suspended ceiling all complete as per drawing and direction of Engineer-in-Charge.	Each	3	50328.22	150984.66
8.7	Digital UV printing over glass/SS sandwiched panels/ metal sheets/ tiles etc. designed as desired and using original UV 8 colours inks with 29 picolite spectra galaxy print head or equivalent, double deposition of ink, on vacuum table of size bigger than 2500X1500 for precision holding of metal sheet etc including the cost of transportation, loading and unloading etc complete as per architectural drawing and direction of Engineer in Charge. Printing shall be smooth/textured as directed.	SqM	~~1878.24~~ **1200.00**	3488.81	~~6552822.49~~ **4186572.00**

8.8	~~Provided and fixing face mounted single sided Illuminated Ad-panel made from quarter circular shaped top & bottom aluminium profiles, Aluminium CNC milled/routed endcaps, bulging polycarbonate sheeting with vinyl message and strip LED & waterproof ballast. The Signage shall be fixed using anchor fasteners on fixing surface. The Signage shall have an easy mechanism of removing the content/Information for inspection and access of the services. Internal signs shall be IP52, and external signs shall be IP65 certified as per graphic~~.				
8.8.1	~~Size 3600mmX1800mm~~	~~No.~~	~~45~~	~~94289.19~~	~~4243013.55~~
8.9	Providing and fixing Acoustic insulation above False ceiling (baffle Ceiling/GRG) Mineral Rockwool type insulation (32 kg/cu.m density),50mm thick wrapped in black cloth conforming to A1s1d0 as per EN15283-1(2009) standards at least 70% areas above baffle to be treated. Fixing detail to soffit shall be as per DDC approved drawing.	SqM	~~9331.82~~ **2550**	895.74	~~8358884.45~~ **2284137.00**
8.10	Providing and fixing Multipurpose fibre (high impact poly propylene reinforced) cement board 8 mm thick on GI/aluminium frame with necessary fasteners, screws complete in all respect as directed by engineer in charge.	SqM	3000	435.62	1306860.00
8.11	Providing and fixing Multipurpose fibre (high impact poly propylene reinforced) cement board 12 mm thick on GI/aluminium frame with necessary fasteners, screws complete in all respect as directed by engineer in charge.	SqM	3000	668.51	2005530.00
8.12	Providing and fixing of sold grade compact HPL as per 438-6 as per EN 438 -6 Type EDS (Exterior Dubai. Standard) / EGS (Exterior General Standard) manufactured using specially treated acrylic resins under high pressure and temperature & hardened into sheets, thus providing all weather protection and UV Resistance on an Aluminum Sub Structure of Aluminum tube Channel having thickness 63x25x2mm, it should be powder coated with approved colour complete in all respect as per Engineer-in-Charge (used for I cladding, canopies, fences, pergola, outdoor cladding, balcony cladding, railing gate, elevation, etc.				
8.12.1	6 mm thick HPL	SqM	~~4500~~ **1800**	4062.68	~~18282060.00~~ **7312824**
~~8.12.2~~	~~12 mm thick HPL~~	~~SqM~~	~~4500~~	~~5200~~	~~23400000.00~~

8.13	Extra for CNC cutting of HPL (High Pressure Laminate) / Acrylic solid surface as per design apprived by Engineer-in-charge.	SqM	~~9000~~ **900**	1697.2	~~15274800.00~~ **1527480**
~~8.14~~	~~Rebarring for structural connections in RCC beams, Lintels, column, slab etc including power drilling holes of appropriate diameter in reinforced or plain cement concrete to a minimum depth of 10x rebar diameter and as per manufacturer specification in position using Hilti chemical. The rates include all material, labour, T&P etc. Nothing shall be paid extra except reinforcement. The reinforcement shall be paid under DSR Items.~~				
~~8.14.1~~	~~10 mm dia reinforcing bar~~	~~Each~~	~~270~~	~~188.13~~	~~50795.10~~
~~8.14.2~~	~~12 mm dia reinforcing bar~~	~~Each~~	~~2625~~	~~250.04~~	~~656355.00~~
~~8.14.3~~	~~16 mm dia reinforcing bar~~	~~Each~~	~~3300~~	~~407.63~~	~~1345179.00~~
~~8.15~~	~~Providing and fixing anchor bolt or fastener of required size in masonry/C.C./concrete/frame of structure etc. surface backing including drilling necessary holes and the cost of bolt etc complete in all respect as per instruction of Engineer-in-charge.~~				
~~8.15.1~~	~~10 mm dia. 100 mm long~~	~~Each~~	~~270~~	~~46.57~~	~~12573.90~~
~~8.15.2~~	~~12 mm dia. 150 mm long~~	~~Each~~	~~2625~~	~~100.6~~	~~264075.00~~
~~8.15.3~~	~~16 mm dia. 150 mm long~~	~~Each~~	~~3300~~	~~479.77~~	~~1583241.00~~
~~8.16~~	~~Providing and fixing Chemical anchor bolt or fastner (using a resin based adhesive system) of required size in masonry/C.C./concrete/frame of structure etc. surface backing including drilling necessary holes and the cost of bolt etc complete in all respect as per instruction of Engineer-in-charge.~~	~~SqM~~	~~135~~	~~27827.57~~	~~3756721.95~~
~~8.17~~	~~Designing, providing and fixing artwork mural made of glass mosaic tiles (make IttaliaBisazza, Siches or Equivalent) which should be used with polyurethane assembled backing. Glass mosaic tiles can be of different colors and sizes as approved by the Engineer-in-Charge to create approved mural, the scope of work includes but not limited) surface preparation, all type of material and labour. Scaffolding/manlifter, type of glass mosaic tiles with high quality chemical adhesive (make myklyticreate, balendura or equivalent) and grouting with transparent epoxy grout (make: Mapei, 72itumas, balendura or~~	SqM	~~386.09~~	12872.49	~~4969939.66~~

	~~equivalent), etc complete as approved by Engineer-in-Charge. Payment shall be made as per the SqM area at art wait mural.~~				
8.18	Providing and fixing Polymer Concrete Saucer self drainage channel of approved brand having no water penetration, having adequate bending tensile strength and compressive strength. The item Includes use of 73itumasti course of cement mortar 1:3 (I cement: 3 coarse sand) up to 50mm over the existing floor to maintain required slope, laid and jointed with waterproof sealant, connection with drain etc complete. The framework and grating shall be paid separately.	Metre	~~3876.9~~ **3500**	2860.66	~~11090492.75~~ **10012310.00**
~~8.19~~	~~VITREOUS ENAMEL (VE) PANEL – Supply and Fixing of minimum 1.2 mm thick Vitreous Enamel panel (Fahrenheit Make or equivalent) and maximum size as per drawings (Maximum Panel size 3000 mm X 1400 mm), with the enamel coating of ground coat 70um, cover coat: 80um, total 180um depending on colour. The spray will be of dry powder electrostatic adsorption. The panel will be puffed with 15 mm Aluminium Honeycomb for excellent rigidity and soundproofing, Immune to corrosion and backing with 0.5mm electro- galvanized steel with moisture resistant coaling behind the rigidity support backing. Adhesive will be of Epoxy resin clue and will be sealed with Dow Corning 995 weather silicone sealant all complete as per approved drawings and direction of Engineer Incharge.~~	SqM	~~745.59~~	18000	~~13420620.00~~
~~8.20~~	~~Providing and Fixing Translite Display Panels with 3mm thick ACP sheet covering, MS builtup sections framing, 4mm thick acrylic sheet, LED lighting (GE/OSRAM/PHILIPS) modules, Aluminium border and Digital UV Printed Translite fascia of approved make and design as approved by the Engineer-in-charge. The price is inclusive of all the materials, labour and installation charges. Nothing shall be paid extra.~~	SqM	~~372.79~~	20000	~~7455800.00~~

~~8.21~~	~~Designing, Printing and fixing 6mm+3mm, clear acrylic sandwich panel of varying size with inkject printed vinyl with border + spacers. This includes the printing, designing/editing of the base photographs. The price is inclusive of all the materials, labour and installation charges. Nothing shall be paid extra.~~	SqM	~~372.79~~	12134.75	~~4523713.45~~
	Total sub head Miscellaneous works				~~**132784343.57**~~ **32879284.00**
9	**SITE DEVELOPMENT WORKS**				
9.1	Construction of GSB by providing close grade material, spreading in uniform layers with motor grader on prepared surface, mixing by mix in place method with vibratory roller to achieve the desired density complete.	Cum	~~300~~ **600.00**	1761.49	~~528447.00~~ **1056894.00**
9.2	Providing and laying Ready mix concrete of grade M15 for external development works.	Cum	~~450~~ **600.00**	5032.82	~~2264769.00~~ **3019692.00**
	Total of Site Development works				~~**2793216.00**~~ **4076586.00**

Signature of Authorized Signatory
On behalf of Tenderer

SCHEDULE– B

ANNEXURE–B 3

Water Supply & Drainage Works (Non DSR Items)

S.NO.	ITEMS	AMOUNT (Rs.)
	WATER SUPPLY AND DRAINAGE WORK	
1	TOTAL OF SEWERAGE AND DRAINAGE SYSTEM	**14050556.5**
2	TOTAL OF SOIL WASTE, VENT & RAINWATER PIPES AND FITTINGS	**558756.85**
3	TOTAL OF WATER SUPPLY	**230718.68**
4	TOTAL OF SANITARY FIXTURES	**494737.99**
5	TOTAL OF MISCELLANEOUS ITEMS	**222276**
6	TOTAL OF SUCTION AND DELIVERY PIPES AND VALVES FOR WATER SUPPLY PUMPS	**1912328.93**
	Total of Water Supply and Drainage Works	**17469374.95**

Signature of Authorized Signatory
On behalf of Tenderer

SCHEDULE– B

ANNEXURE–B3

WATER SUPPLY & DRAINAGE WORKS (NON DSR ITEMS)

S.NO	Description	Unit	Total Qty	Unit Rate	Total
				INR	INR
1	**SEWERAGE AND DRAINAGE WORKS**				
1.1	Providing and laying cement concrete 1:5:10(1 cement 5 coarse sand 10 graded stone aggregate 40mm nominal size) up to haunches of SW including bed concrete as per standard design				
1.1.1	450mm dia RCC Pipe	RM	100	1358.60	135860.00
1.2	Providing and fixing G.I. pipes (I.S: 1239 Heavy class) complete with all fittings and specials such as bends, tees, unions, reducers, flanges & plugs etc. conforming to IS:1879 (embedded in floor & slab for internal station 76itumast and seepage /sewage riser.)				
1.2.1	80 mm dia	RM	1750	1457.05	2549837.50
1.2.2	100 mm dia	RM	4500	2059.85	9269325.00
1.2.3	150 mm dia	RM	700	2993.62	2095534.00
	TOTAL OF SEWERAGE AND DRAINAGE SYSTEM				**14050556.50**
2	**SOIL WASTE & VENT, RAINWATER PIPES AND FITTINGS**				
2.1	Providing, fixing, testing and commissioning of UPVC SWR pipe type 'B' conforms to IS : 13592-1992 with all fittings such as bends, tees, elbow, 'Y', offset, cleaning pipe door,door horn bend, clamps etc. conforming to IS:14735-1999 and steel structural supports etc. including cutting the floors, walls and making good the same in cement concrete 1:2:4 & cement mortar 1:4. The wall thickness of pipe and technical characteristic conforms to IS : 13592-1992 type 'B'. The fitting dimension conforming to IS: 14735-1999. The jointing to be completed with rubber ring joint/solvent weld joint as required/applicable				
2.1.1	75 mm OD	RM	5	464.85	2324.25
2.1.2	110 mm OD	RM	500	675.12	337560.00
2.1.3	160 mm OD	RM	5	1181.44	5907.20
2.2	Providing and fixing G.I. (heavy class) waste pipes and fittings conforming to IS: 1239 with M.S. clamp/hook including cutting chases and holes in RCC/Brick wall/Ceilings and making good the same in cement mortar 1:3 (1 cement: 3 coarse sand) to match with the surroundings for waste from wash basins, urinals kitchen sink and sump, pump deliveries and suction etc as shown in drawings and directed by the Engineer in Charge.				
2.2.1	32 mm dia	RM	55	602.79	33153.45

2.2.2	40 mm dia	RM	42	689.70	28967.40
2.2.3	50 mm dia	RM	5	917.13	4585.65
2.3	Providing and fixing CP Brass floor cleanout plug as per drawing complete with G.I. Socket jointed to drainage pipe outlet complete in all respects.				
2.3.1	100 mm dia	Nos.	10	1293.91	12939.10
2.4	Providing and fixing SS grating with frame including fixing to the floor with cement mortar.				
2.4.1	100 mm dia	Nos.	220	319.71	70336.20
2.5	Providing and fixing on wall face 77itumastic77ed Rigid PVC rainwater pipes conforming to IS: 13592 Type A, including jointing with seal ring conforming to IS: 5382, leaving 10 mm gap for thermal expansion, (i) Single socketed pipes.				
2.5.1	160 mm dia	RM	40	698.94	27957.60
2.6	Providing and fixing 100mm dia G.I. Inlet fitting of standard design and as shown in drawing with two- three inlets, suitable for 32mm to 50mm G.I. Pipes and 75mm to 100mm outlet. Including cost of cutting and making good the walls & floors wherever required.	Nos.	20	776.35	15527.00
2.7	Providing, fixing, testing and commissioning of UPVC 'P' trap/floor trap/urinal trap of self cleansing design having 50 mm water seal with or without horn conforming to IS: 14735-1999 including setting with cement concrete 1:2:4 (1 cement: 2 coarse sands: 4 hard stone ballast 20 mm nominal size) including cost of cutting and making good the walls & floors wherever required.				
2.7.1	110 mm inlet x110 mm outlet	Nos.	20	974.95	19499.00
	TOTAL OF SOIL WASTE & VENT, RAINWATER PIPES AND FITTINGS				**558756.85**
3	**WATER SUPPLY**				
3.1	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold-water supply, including all CPVC plain & brass threaded fittings, including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and testing of joints complete as per direction of Engineer in Charge.				
3.1.1	65 mm outer dia Pipes (Schedule 40)	RM	40	1585.00	63400.00
3.2	Providing and fixing Brass ball Valves of the following sizes conforming to BS 5351 and the M & W Specifications, suitable for pressure rating of 10 kg/Sq.cm, with lever and fitting viz, flange/union, nuts, bolts, washer etc. complete as per M & W specifications				
3.2.1	20mm nominal bore	Nos.	11	917.43	10091.73
3.2.2	25mm nominal bore	Nos.	4	1318.16	5272.64
3.2.3	32mm nominal bore	Nos.	1	1701.22	1701.22

3.2.4	40mm nominal bore	Nos.	1	2303.08	2303.08
3.3	Providing and fixing Butterfly Valves of the following sizes conforming to BS 5351 and the M & W Specifications, suitable for pressure rating of 10 kg/Sq.cm, with hand lever operation, rubber gaskets, flanges, nuts, bolts and washers including painting complete as per M & W specification.				
3.3.1	65mm nominal bore	Nos.	10	6353.20	63532.00
3.3.2	80mm nominal bore	Nos.	1	7376.24	7376.24
3.3.3	100mm nominal bore	Nos.	1	9757.05	9757.05
3.3.4	150mm nominal bore	Nos.	1	15020.26	15020.26
3.4	Providing and fixing Wafer type Double Plate Check Valves of the following sizes conforming to API-594, suitable for pressure rating of 16 kg /Sq.cm with cast iron body conforming to BS 1452, rubber gasket, flanges, union, nuts, bolts, and washers including painting complete as per M & W Specifications.				
3.4.1	50 mm dia	Nos.	1	6179.72	6179.72
3.4.2	65 mm dia	Nos.	6	7680.79	46084.74
3.4.3	80 mm dia	Nos.	1	9182.83	9182.83
	TOTAL OF WATER SUPPLY				**230718.68**
4	**SANITARY FIXTURES**				
	Note: The fixtures used shall be low flow and must conform to norms laid by IGBC.				
4.1	Providing and fixing C.P. brass twin robe hooks as per approved make.	Nos.	11	905.74	9963.14
4.2	Providing and fixing, ABS plastic body liquid soap dispenser with push lever assembly complete with soap refill as per approved make.	Nos.	9	905.74	8151.66
4.3	Providing and fixing white glazed vitreous china division plates for urinals of size 680x 300 mm as per approved make.	Nos.	8	1940.86	15526.88
4.4	Providing and fixing grab bar 600mm as per approved make.	Nos.	6	1552.69	9316.14
4.5	Fixing Health faucet with 1m PVC tube and swivel hook with all necessary accessories complete as required.	Nos.	6	1943.84	11663.04
4.6	Providing and fixing solid state, no touch operating, fully hygienic hand drier of approved shade as described in M & W Specification with double blower, continuous repeat usage, time delay, summer and winter control including provision of necessary brackets, cable from drier to plug, plug to key and lock etc. complete as required.	Nos.	6	12270.31	73621.86
4.7	Providing and fixing CP Brass long body Bib Cock ISI marked and of 15mm nominal bore (weight not less than 810 gms) complete in all respect.	Nos.	2	1710.37	3420.74
4.8	Providing and fixing 15mm nominal bore, CP Brass Connection (45cm length) with CP brass Union, including nuts and washers and making connection to fixtures & fittings, complete as required	Nos.	2	724.83	1449.66

4.9	Providing and fixing 15mm nominal bore, CP Brass Bib Cock (short body) conforming to IS:8931 (having a minimum weight of 400 gms) complete as required.	Nos.	2	1238.87	2477.74
4.10	Providing and fixing grap bar as per direction of Engineer incharge UPMRC	Each	3	5140.57	15421.71
4.11	Providing and fixing wash basin handle for handicap Toilet per direction of Engineer incharge UPMRC	Each	3	3427.05	10281.15
4.12	Providing and fixing Water Closet (European Type), Wall hung, rimless, blind installation with uf soft close slim seat cover, hinges, accessories set of make Jaquar (Cat No. SLS-WHT-6953BIUFSM Size: 360X520X405 MM) / Hindware (LARA- RIMLESS-CAT.NO. 20069, Size 53.5 x 38 x 37 cm, star white colour/ ESSENCE-Size 55 x 37.5 x 37. Cm, CAT.NO. 92051, star white/ Crystal- size 60 x 36 x 40 cm, Cat. No. 20047, Star white)/ KUBIX Cat No. KX-WXT-35951 with UF seat cover hinges accessories complete)/ Parryware (QUBEX Cat No. CH44H/HAVENA N / CASCAD N x T, cat. No.C0207) / CERA (Carnival 2030 CR EWC Wall hung P clen Rim 2306 CANDY soft close seat cover outlet gasket / in let gasket completes with white colour) or any brand as approved by Engineer-in-Charge.	Each	15	9956.94	149354.10
4.13	Providing and fixing wall hung / Sensor Urinal of Make Jaquar (Cat. No. URS-WHT-13253O Size: 370x315x620 mm)/Parryware or equivalent, integral electrically operated, infrared sensor operated flush with pre flush 250 ml, post flush 350 ml and concealed water inlet. Complete in all respect as per satisfaction of Engineer-in Charge.	Each	9	8684.03	78156.27
4.14	Providing and fixing concealed Cistern make Hindware (CONCEALO, 80 mm, Complete set with flush plate) / Jaquar (ACS-WHT- 2400FS single piece clean concealed cistern with floor mounting frame, installation kit and S type drainpipe connection set for wall hung WC with flush plate) as approved by Engineer-in-Charge.	Each	15	7062.26	105933.90
	TOTAL OF SANITARY FIXTURES				**494737.99**
5	**MISCELLANEOUS ITEMS**				
5.1	Providing and fixing 600mm long puddle flanges fabricated out of 6mm thick M.S. plates along with flanges of suitable size properly fixed in walls and top slabs of underground and overhead tanks.				
5.1.1	25mm dia pipe – 4.50 mm thck	Nos.	6	129.40	776.40
5.1.2	32mm dia pipe – 4.50 mm thck	Nos.	1	258.78	258.78
5.1.3	50mm dia pipe – 4.50 mm thck	Nos.	4	388.17	1552.68
5.1.4	65mm dia pipe – 4.65 mm thck	Nos.	1	776.35	776.35
5.1.5	80mm dia pipe – 4.85 mm thck	Nos.	32	970.44	31054.08
5.1.6	100mm dia pipe – 5.40 mm thck	Nos.	41	1293.91	53050.31
5.2	Providing & fixing MS vent pipe complete with 2 Nos. bends & painting with enamel paint all complete.				
5.2.1	100 mm dia	Nos.	28	4814.55	134807.40
	TOTAL OF MISCELLANEOUS ITEMS				**222276.00**

6	**SUCTION AND DELIVERY PIPES AND VALVES FOR WATER SUPPLY PUMPS**				
6.1	Providing and fixing G.I. suction & delivery headers / pipes for water supply pumps (IS:1239 heavy class) with G.I. Fittings (bends, tees, reducers, plugs, union, flange & blank flanges etc) and clamps and jointing with 80ituma tape or hold tite including chase cutting and making good the walls, floors etc. wherever required.				
6.1.1	50 mm nominal bore	RM	180	917.13	165083.40
6.1.2	65 mm nominal bore	RM	50	1179.70	58985.00
6.1.3	80 mm nominal bore	RM	100	1457.05	145705.00
6.1.4	100 mm nominal bore	RM	65	2059.85	133890.25
6.2	Painting for G.I./MS Pipes with two or more coats of synthetic enamel paint of approved quality and shade over a coat of approved primer coat as directed including surface preparation (Shade as per pipe colour code)				
6.2.1	50 mm nominal bore	RM	150	35.13	5269.50
6.2.2	65 mm nominal bore	RM	30	35.13	1053.90
6.2.3	80 mm nominal bore	RM	87	44.39	3861.93
6.2.4	100 mm nominal bore	RM	58	51.78	3003.24
6.3	Providing, fixing, jointing, testing and commissioning of dual flange CI 'Y' Strainer (flanged) with stainless steel fine wire mesh perforated sheet basket with necessary flange / unions, nuts, bolts and washers complete as required with all necessary accessories, as per specification/drawings and as directed by Engineer in Charge.				
6.3.1	50 mm nominal bore	Each	10	4694.66	46946.60
6.3.2	80 mm nominal bore	Each	10	8090.01	80900.10
6.3.3	100 mm nominal bore	Each	10	10560.39	105603.90
6.4	Providing and fixing Butterfly Valves of the following sizes conforming to BS 5351 and the M & W Specifications, suitable for pressure rating of 10 kg/Sq.cm, with hand lever operation, rubber gaskets, flanges, nuts, bolts, and washers including painting complete as per M & W specification				
6.4.1	65 mm nominal bore	Each	1	6353.34	6353.34
6.4.2	80 mm nominal bore	Each	20	7375.86	147517.20
6.4.3	100 mm nominal bore	Each	45	9757.44	439084.80
6.4.4	150 mm nominal bore	Each	1	15020.26	15020.26
6.5					
6.5.1	50 mm nominal bore	Each	10	6179.53	61795.30
6.5.2	65 mm nominal bore	Each	1	7680.96	7680.96
6.5.3	80 mm nominal bore	Each	15	9182.40	137736.00
6.5.4	100 mm nominal bore	Each	15	13239.17	198587.55
6.5.5	150 mm nominal bore	Each	5	15020.26	75101.30

6.6	Providing and fixing Brass ball Valves of the following sizes conforming to BS 5351 and the Specifications, suitable for pressure rating of 16 kg /Sq.cm, with lever and fitting viz, flange/union, nuts, bolts, washer etc. complete as per specifications				
6.6.1	50 mm nominal bore	Each	20	3657.47	73149.40
	TOTAL OF SUCTION AND DELIVERY PIPES AND VALVES FOR WATER SUPPLY PUMPS				**1912328.93**
	TOTAL FOR SCHEDULE B-3: PLUMBING WORKS				**17469374.95**

Signature of Authorized Signatory
On behalf of Tenderer

SCHEDULE– B

ANNEXURE–B 4

FIRE DOOR WORKS (NON DSR ITEMS)

S. No.	Item Description	Units	Quantity	Rate	Amount (INR)
1	**FIRE DOOR**				
1.1	Providing & fixing 90 minutes steel Fire rated door as per detailed specification along with accessories as per NFPA 80 and tested as per NFPA 252, temperature increase on the un-exposed surface not exceeding an average of 2320C (4500F) during first 30 minutes of test.				
1.1.1	1000 X 2105 mm	Each	~~11~~ **20**	61847.72	~~680324.92~~ **1236954.40**
1.1.1a	1200 X 2400 mm (Single Leaf)	Each	~~3~~ **45**	84618.25	~~253854.75~~ **3807821.25**
1.1.2	1500 X 2105 mm (Double Leaf)	Each	~~14~~ **30**	91541.14	~~1281575.96~~ **556629.48**
1.1.3	2000 X 2105 mm (Double Leaf) with Panic Bar in both leaves and with Door Coordinator	Each	~~14~~ **10**	114468.86	~~1602564.04~~ **945411.40**
1.1.4	2000 X 2400 mm (Double Leaf) with Panic Bar in both leaves and with Door Coordinator	Each	~~3~~ **15**	130510.82	~~391532.46~~ **1957662.30**
1.2	Providing & fixing 90 minutes steel Fire rated door as per detailed specification along with accessories as per NFPA 80 and tested as per NFPA 252, temperature increase on the un-exposed surface not exceeding an average of 3610C (6500F) during first 30 minutes of test.				
1.2.1	750 X 2105 mm	Each	~~11~~ **60**	59909.62	~~659005.82~~ **3594577.20**
1.2.2	1000 X 2105 mm	Each	~~14~~ **12**	61847.72	~~865868.08~~ **742172.24**
1.2.3	1500 X 2105 mm (Double Leaf) with Panic Bar in free Leaf	Each	~~14~~ **15**	82067.48	~~1148944.72~~ **1231012.20**
1.3	Providing & fixing 180 minutes steel Fire rated door as per detailed specification along with accessories as per NFPA 80 and tested as per NFPA 252, temperature increase on the un-exposed surface not exceeding an average of 3610C (6500F) during first 30 minutes of test.				
1.3.1	750 X 2105 mm	Each	~~11~~ **3**	69695.92	~~766655.12~~ **209087.76**
1.3.2	1500 X 2105 mm (Double Leaf)	Each	~~14~~ **6**	110750.68	~~1550509.52~~ **664504.08**
1.3.3	1500 X 2105 mm (Double Leaf) with Panic Bar in free Leaf	Each	~~14~~ **12**	112866.96	~~1580137.44~~ **1354403.52**
1.3.4	2000 X 2400 mm (Double Leaf) with Panic Bar in free Leaf	Each	~~3~~ **12**	171579.23	~~514737.69~~ **2058950.76**
1.4	Providing & fixing steel non-Fire rated door as per detailed specification along with accessories as per NFPA 80 and tested as per NFPA 252,				
1.4.1	750 X 2105 mm	Each	~~11~~	57947.99	~~637427.89~~

			12		**695375.88**
1.4.2	1000 X 2105 mm	Each	~~35~~ **20**	59886.08	~~2096012.80~~ **1197721.60**
1.4.3	1500 X 2105 mm (Double Leaf)	Each	~~15~~ **10**	87624.60	~~1314369.00~~ **876246.00**
	Total of Fire Door		285		~~**15343520.21**~~ **21441937.05**
Cost of following minimum Accessories, as per NFPA 80, are included in the price of respective doors along with the cost of any other accessories provided to meet the performance requirement of the specifications.					
4" ball bearing hinges (for single leaf door)					
4" ball bearing hinges (for double leaf door)					
Door closer (Fire rated – Heavy Duty)					
Tower Bolts (for double leaf doors) except in Double leaf Doors with Door Coordinators.					
3 – point latch system (for all doors except doors with panic bar as in item 1.3 above)					

Signature of Authorized Signatory
On behalf of Tenderer

SCHEDULE – C
ANNEXURE – C 1.1

ARCHITECTURAL FINISHING WORK (DSR ITEMS)

SUMMARY

S/NO.	ITEMS	AMOUNT (Rs.)
1	GRANITE STONEWORK	~~393991~~ **2286673.00**
2	METAL WORKS	~~785895~~ **24941865.00**
3	FLOORING WORK	~~3388822~~ **19910569.00**
4	SUSPENDED CEILING WORK	~~3600000~~ **6583919.00**
5	FINISHING WORK	~~2355852~~ **16710594.00**
6	SITE DEVELOPMENT WORK	~~433264~~ **3507889.00**
7	WATERPROOFING WORK	~~196332~~ **9340029.00**
8	ANY OTHER ITEMS UNDER DSR-2021	~~2632766~~ **3000000**
Total of schedule C 1.1 (Civil, Architectural finishing, External Development including Horticulture works & ANY OTHER DSR ITEM WORKS		~~**13786922**~~ **86281538**

Signature of Authorized Signatory
On behalf of Tenderer

SCHEDULE – C

ANNEXURE – C 1.1

ARCHITECTURAL FINISHING WORK (DSR ITEMS)

S. NO.	DSR 2021 (Code No.)	Item Description	Units	Rate
1		**GRANITE STONEWORK**		
1.1	8.14	Stone work (machine cut edges) for wall lining etc. (veneer work) up to 10metre height, backing filled with a grout of average 12 mm thick cement mortar 1:3 (1 cement : 3 coarse sand) including pointing in white cement mortar 1:2 (1 white cement : 2 stone dust) with an admixture of pigment matching the stone shade : (To be secured to the backing and the sides by means of cramps and pins which shall be paid for separately) :		
1.1.1	8.14.2	Red sandstone – Exposed face machine cut, and table rubbed with rough backing		
1.1.1.1	8.14.2.5	30 mm thick	Sqm	6057.00
1.2	8.2	Providing and fixing 18mm thick gang saw cut mirror polished pre moulded and pre polished) machine cut for kitchen platforms, vanity counters, window sills , facias and similar locations of required size of approved shade, colour and texture laid over 20mm thick base cement mortar 1:4 (1 cement : 4 coarse sand) with joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing, moulding and polishing to edges to give high gloss finish etc. complete at all levels.		
1.2.1	8.2.3	Granite stone slab all colour and texture except black, Cherry/ Ruby red		
1.2.1.1	8.2.3.2	Area of slab over 0.50 sqm.	Metre	3301.45
1.3	8.3	Providing edge moulding to 18mm thick marble stone counters, Vanities etc. including machine polishing to edge to give high gloss finish etc.		
		complete as per design approved by Engineer-in- Charge.		
1.3.1	8.3.2	Granite work	metre	418.85
1.4	8.4	Extra for fixing marble /granite stone over and above corresponding basic item, in facia and drops of width up to 150 mm with epoxy resin-based adhesive including cleaning etc. complete.	Metre	475.55
1.5	8.5	Extra for providing opening of required size & shape for wash basins/ kitchen sink in kitchen platform, vanity counters and similar location in marble/Granite/stonework including necessary holes for pillar taps etc. including moulding, rubbing and polishing of cut edges etc. complete.	Each	808.15
		Total for Granite Stone Works		
2		**METAL WORKS**		

2.1	10.25	Steel work welded in built up sections/ framed work including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer using structural steel etc. as required.		
2.1.1	10.25.2	In gratings, frames, guard bar, ladder, railings, brackets, gates and similar works. Note: - Shop drawing to submitted before execution for approval of site Engineer-in-charge	kg	142.30
2.2	10.2	Structural steel work riveted, bolted or welded in built up sections, trusses and framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete.	Kg	78.20
2.3	10.28	Providing and fixing stainless steel (Grade 304) railing made of Hollow tubes, channels, plates etc., including welding, grinding, buffing, polishing and making curvature (wherever required) and fitting the same with necessary stainless steel nuts and bolts complete, i/c fixing the railing with necessary accessories & stainless steel dash fasteners , stainless steel bolts etc., of required size, on the top of the floor or the side of waist slab with suitable arrangement as per approval of Engineer-incharge, (for payment purpose only weight of stainless steel members shall be considered excluding fixing accessories such as nuts, bolts, fasteners etc.).	Kg	612.25
2.4	**8.32**	**Designing, fabricating, testing, installing and fixing in position Curtain Wall with Aluminium Composite Panel Cladding, with open grooves for linear as well as curvilinear portions of the building , for all heights and all levels etc. including:**		
	a	**Structural analysis & design and preparation of shop drawings for pressure equalisation or rain screen principle as required, proper drainage of water to make it watertight including checking of all the structural and functional design.**		
	B	**Providing, fabricating and supplying and fixing panels of aluminium composite panel cladding in pan shape in 86itumast colour of approved shades made out of 4mm thick aluminium composite panel material consisting of 3mm thick FR grade mineral core sandwiched between two Aluminium sheets (each 0.5mm thick). The aluminium composite panel cladding sheet shall be coil coated,mwith Kynar 500 based PVDF / Lumiflon based fluoropolymer resin coating of approved colour and shade on face # 1 and polymer (Service) coating on face # 2 as specified using stainless steel screws, nuts, bolts, washers, cleats, weather silicone sealant, backer rods etc.**		

	c	**The fastening brackets of Aluminium alloy 6005 T5 / MS with Hot Dip Galvanised with serrations and serrated washers to arrest the wind load movement, fasteners, SS 316 Pins and anchor bolts of approved make in SS 316, Nylon separators to prevent bi-metallic contacts all complete required to perform as per specification and drawing The item includes cost of all material & labour component, the cost of all mock ups at site, cost of all samples of the individual components for testing in an approved laboratory, field tests on the assembled working curtain wall with aluminium composite panel cladding, cleaning and protection of the curtain wall with aluminium composite panel cladding till the handing over of the building for occupation. Base frame work for ACP cladding is payable under the relevant aluminium item.s The Contractor shall provide curtain wall with aluminium composite panel cladding, having all the performance characteristics all complete , as per the Architectural drawings, as per item description, as specified, as per the approved shop drawings and as directed by the Engineer-in-Charge. However, for the purpose of payment, only the actual area on the external face of the curtain wall with Aluminum Composite Panel Cladding (including width of groove) shall be measured in sqm. Up to two decimal places.**	**Sqm**	**4474.20**
		Total for Metal Works		
3		**FLOORING**		
3.1	4.1	Providing and laying in position cement concrete of specified grade excluding the cost of cantering and shuttering – All work up to plinth level:		
3.1.1	4.1.3	1:2:4 (1 cement: 2 coarse sands: 4 graded stone aggregate 20 mm nominal size)	Cum	7365.15
3.2	11.4	52 mm thick cement concrete flooring with concrete hardener topping, under layer 40 mm thick cement concrete 1:2:4 (1 cement: 2 coarse sands: 4 graded stone aggregate 20 mm nominal size) and top layer 12 mm thick cement hardener consisting of mix 1:2 (1 cement hardener mix: 2 graded stone aggregate 6 mm nominal size) by volume, hardening compound mixed @ 2 litre per 50 kg of cement or as per manufacturer's specifications. This includes cost of cement slurry but excluding the cost of nosing of steps etc. complete.	Sqm	855.90
3.3	11.6	Cement plaster skirting (up to 30 cm height) with cement mortar 1:3 (1 cement: 3 coarse sand) finished with a floating coat of neat cement.		

3.3.1	11.6.1	18mm thick.	Sqm.	570.75
~~3.4~~	~~11.23~~	~~Marble stone flooring with 18 mm thick marble stone as per sample of marble approved by Engineer in-Charge, over 20 mm (average) thick base of cement mortar 1:4 (1 cement: 4 coarse sand) laid and jointed with grey cement slurry including rubbing and polishing completewith:~~	-	-
~~3.4.1~~	~~11.23.5~~	~~Udaipur green marble / Raj Nagar plain / Pink plain marble (stone size will be as per approved drawing)~~	~~Sqm.~~	~~2100.40~~
3.5	11.26	Kota stone slab flooring over 20 mm (average) thick base laid over and jointed with grey cement slurry mixed with pigment to match the shade of		
		the slab including rubbing and polishing complete		
3.5.1	11.26.1	with base of cement mortar 1: 4 (1 cement: 4 coarse sand): 25 mm thick.	Sqm.	1706.60
3.6	11.27	Kota stone slabs 20 mm thick in risers of steps, skirting, dado and pillars laid on 12 mm (average) thick cement mortar 1:3 (1 cement: 3 coarse sand) and jointed with grey cement slurry mixed with pigment to match the shade of the slabs, including rubbing and polishing complete.	Sqm	2038.55
~~3.7~~	~~8.31~~	~~Providing and fixing Ist quality ceramic glazed wall tiles conforming to IS: 15622 (thickness to be specified by the manufacturer), of approved make, in all colours, shades except burgundy, bottle green, black of any size as approved by Engineer-in-Charge, in skirting, risers of steps and dados, over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm, including pointing in white cement mixed with pigment of matching shade complete.~~	~~Sqm~~	~~1063.45~~
3.8	11.37	Providing and laying Ceramicglazed floor tiles of size 300x300 mm (thickness to be specified by the manufacturer) of 1st quality conforming to IS: 15622 of approved make in colours such as White, Ivory, Grey, Fume Red Brown, laid on 20 mm thick cement mortar 1:4 (1 Cement: 4 Coarse sand), including pointing the joints with white cement and matching pigment etc, complete.	Sqm	935.60
3.9	11.41	Providing and laying vitrified floor tiles in different sizes (thickness to be specified by the manufacturer) with water absorption's less than 0.08% and conforming to IS : 15622 of approved make in all colours and shades, laid on 20mm thick cement mortar 1:4 (1 cement : 4 coarse sand) including grouting the joints with white cement and matching pigments etc., complete.		

3.9.1	11.41.2	Size of Tile 600x600 mm	Sqm	1416.65
~~3.9.2~~	~~11.41.3~~	~~Size of Tile 800x800 mm~~	~~Sqm~~	~~1879.95~~
~~3.9.3~~	~~11.41.4~~	~~Size of Tile 1000x1000 mm~~	~~Sqm~~	~~2551.95~~
3.10	11.47	Providing and laying Vitrified tile in different sizes (thickness to be specified by the manufacturer), with water absorption less than 0.08% and conforming to IS: 15622,of approved brand & manufacturer, in all colours and shade, in skirting, riser of steps, laid with cement based high polymer modified quick set tile adhesive (water based) conforming to IS: 15477, in average 6 mm thickness, including grouting of joints (Payment for grouting of joints to be made separately).		
3.10.1	11.47.2	Size of Tile 600x600 mm	Sqm	1676.15
~~3.10.2~~	~~11.47.3~~	~~Size of Tile 800x800 mm~~	~~Sqm~~	~~2142.40~~
~~3.10.3~~	~~11.47.4~~	~~Size of Tile 1000x1000 mm~~	~~Sqm~~	~~2814.40~~
		Total for Flooring Works		
4		**SUSPENDED CEILING WORKS**		
		Gypsum board ceiling		
4.1	12.45	Providing and fixing false ceiling at all height including providing and fixing of frame work made of special sections, power pressed from M.S. sheets and galvanized with zinc coating of 120 gms/sqm (both side inclusive) as per IS : 277 and consisting of angle cleats of size 25 mm wide x 1.6 mm thick with flanges of 27 mm and 37mm, at 1200 mm centre to centre, one flange fixed to the ceiling with dash fastener 12.5 mm dia x 50mm long with 6mm dia bolts, other flange of cleat fixed to the angle hangers of 25x10x0.50 mm of required length with nuts & bolts of required size and other end of angle hanger fixed with intermediate G.I. channels 45x15x0.9 mm running at the spacing of 1200 mm centre to centre, to which the ceiling section 0.5 mm thick		

		bottom wedge of 80 mm with tapered flanges of 26 mm each having lips of 10.5 mm, at 450 mm centre to centre, shall be fixed in a direction perpendicular to G.I. intermediate channel with connecting clips made out of 2.64 mm dia x 230 mm long G.I. wire at every junction, including fixing perimeter channels 0.5 mm thick 27 mm high having flanges of 20 mm and 30 mm long, the perimeter of ceiling fixed to wall/partition with the help of rawl plugs at 450 mm centre, with 25mm long dry wall screws @ 230 mm interval, including fixing of gypsum board to ceiling section and perimeter channel with the help of dry wall		
		screws of size 3.5 x 25 mm at 230 mm c/c, including jointing and finishing to a flush finish of tapered and square edges of the board with recommended jointing compound , jointing tapes, finishing with jointing compound in 3 layers covering up to 150 mm on both sides of joint and two coats of primer suitable for board, all as per manufacturer's specification and also including the cost of making openings for light fittings, grills, diffusers, cut-outs made with frame of perimeter channels suitably fixed, all complete as per drawings, specification and direction of the Engineer in Charge but excluding the cost of painting with		
4.1.1	12.45.2	12.5 mm thick tapered edge Glass Reinforced Gypsum (GRG) fire resistant board conforming to IS: 2095- (Part 3): 1996 (Board with BIS certification marks)	Sqm	1286.45

4.2	12.53	Providing and Fixing 15 mm thick densified tegular edged eco-friendly light weight **calcium silicate false ceiling tiles** of approved texture spintone/ cosmos / Hexa or equivalent of size 595 x 595 mm in true horizontal level, suspended on inter locking metal grid of hot dipped galvanised steel sections (galvanising @120 grams per sqm including both side) consisting of main 'T' runner suitably spaced at joints to get required length and of size 24x38 mm made from 0.33 mm thick (minimum) sheet, spaced 1200mm centre to centre, and cross "T" of size 24x28 mm made out of 0.33mm (Minimum) sheet, 1200 mm long spaced between main 'T' at 600 mm centre to centre to form a grid of 1200x600 mm and secondary cross 'T 'of length 600 mm and size 24 x28 mm made of 0.33 mm thick (Minimum)sheet to be inter locked at middle of the 1200x 600 mm panel to from grid of size 600x600 mm, resting on periphery walls /partitions on a Perimeter wall angle pre-coated steel of size(24x24X3000mm made of 0.40 mm thick (minimum) sheet with the help of rawl plugs at 450 mm centre to centre with 25 mm long dry wall screws @ 230 mm interval and laying 15mm thick densified edges calcium silicate ceiling tiles of approved texture (Spintone / Cosmos/hexa) in the grid, including, cutting/ making opening for		
		services like diffusers, grills, light fittings, fixtures, smoke detectors etc., wherever required. Main 'T' runners to be suspended from ceiling		
		using G.I. slotted cleats of size 25x35x1.6 mm fixed to ceiling with 12.5mm dia and 50 mm long dash fasteners, 4 mm G.I. adjustable rods with galvanised steel level clips of size 85 x 30 x 0.8 mm, spaced at 1200 mm centre to centre along main 'T', bottom exposed with 24 mm of all T sections shall be pre- painted with polyester baked paint, for all heights, as per specifications, drawings and as directed by engineer-in-charge.	Sqm	1718.70
		Note: - Only calcium silicate false ceiling area will be measured from wall to wall. No deduction shall be made for exposed frames/opening (cut-outs) having area less than 0.30 sqm. The calcium silicate ceiling tile shall have NRC value of 0.50 (Minimum), light reflection > 85%, non-combustible as per B.S.476-part IV, 100% humidity		

		resistance and also having thermal conductivity <0.043 w/m 0 KC.		
4.3	**16.9**	**Providing and laying tactile tile (for vision impaired persons as per standards) of size 300x300x9.8mm having with water absorption less than 0.5% and conforming to IS:15622 of approved make in all colours and shades in for outdoor floors such as footpath, court yard, multi modals location etc., laid on 20mm thick base of cement mortar 1:4 (1 cement : 4 coarse sand) in all shapes & patterns including grouting the joints with white cement mixed with matching pigments etc. complete as per direction of Engineer-in-Charge.**	**Sqm**	**1719.00**
		Total for Suspended Ceiling Works		
5		**FINISHING WORK**		
5.1	13.1	12 mm cement plaster of mix:		
5.1.1	13.1.2	1:6 (1 cement: 6 fine sand).	Sqm.	282.00
5.2	13.2	15 mm cement plaster on rough side of single or half brick work		
		wall of mix:		
5.2.1	13.2.2	1:6 (1 cement: 6fine sand)	Sqm.	323.30
5.3	13.37	White washing with lime to give an even shade:		
5.3.1	13.37.1	New work (three or more coats)	Sqm.	32.45
5.4	13.41	Distempering with oil bound washable distemper of approved brand and manufacture to give an even shade:		
5.4.1	13.41.1	New work (two or more coats) over and including water	Sqm.	162.55

		thinnable priming coat with cement primer.		
5.5	13.43	Applying one coat of water thinnable cement primer of approved brand and manufacture on wall surface:		
5.5.1	13.43.1	Water thinnable cement primer.	Sqm.	64.45
5.6	13.45	Finishing walls with textured exterior paint required shade.		
5.6.1	13.45.1	New work (Two or more coats applied@3.84ltr/10sqm) over and including priming coat of exterior primer applied @2.20kg/10sqm.	Sqm.	245.00
5.7	13.52	Finishing with Epoxy paint (two or more coats) at all locations prepared and applied as per manufacturer's specifications including appropriate priming coat, preparation of surface, etc. complete		
5.7.1	13.52.2	On concrete work	Sqm.	198.40
5.8	13.6	Wall painting with acrylic emulsion paint of approved brand and manufacture to give an even shade:		
5.8.1	13.60.1	Two or more coats on new work.	Sqm.	137.85
5.9	**25.2**	**Designing, fabricating, testing, protection, installing and fixing in position semi (grid) unitized system of structural glazing (with open joints) for linear as well as curvilinear portions of the building for all heights and all levels, including:**		
		2) **Structural analysis & design and preparation of shop drawings for the specified design loads conforming to IS 875 part III (the system must passed the proof test at 1.5 times design wind pressure without any failure), including functional design of the aluminum sections for fixing glazing panels of various thicknesses, aluminium cleats, sleeves and splice plates etc. gaskets, screws, toggles, nuts, bolts, clamps etc., structural and weather silicone sealants, flashings, fire stop (barrier)-cum-smoke seals, microwave cured EPDM gaskets for water tightness, pressure equalisation & drainage and protection against fire hazard including:**		
		b) Fabricating and supplying serrated M.S. hot dip galvanised / Aluminium alloy of 6005 T5 brackets of required sizes, sections and profiles etc. to accommodate 3 Dimentional movement for achieving perfect verticality and fixing structural glazing system rigidly to the RCC/ masonry/structural steel framework of building structure using stainless steel anchor fasteners/ bolts, nylon 93itumasti to prevent bimetallic contacts		

		with nuts and washers etc. of stainless steel grade 316, of the required capacity and in required numbers.		
		c) Providing and filling, two part pump filled, structural silicone sealant and one part weather silicone sealant compatible with the structural silicone sealant of required bite size in a clean and controlled factory / work shop environment, including double sided spacer tape, setting blocks and backer rod, all of approved grade, brand and manufacture, as per the approved sealant design, within and all around the perimeter for holding glass.		
		d) Providing and fixing in position flashings of solid aluminium sheet 1 mm thick and of sizes, shapes and profiles, as required as per the site conditions, to seal the gap between the building structure and all its interfaces with curtain glazing to make it watertight.		
		e) Making provision for drainage of moisture/ water that enters the curtain glazing system to make it watertight, by incorporating principles of pressure equalization, providing suitable gutter profiles at bottom (if required), making necessary holes of required sizes and of required numbers etc. complete. This item includes cost of all inputs of designing, labour for fabricating and installation of aluminium grid, installation of glazed units, T&P, scaffolding and other incidental charges including wastages etc., enabling temporary structures and services, cranes or cradles etc. as described above and as specified. The item includes the cost of getting all the structural nd functional design including shop drawings checked by a structural designer, dully approved by Engineer-in-charge. The item also includes the cost of all mock ups at site, cost of all samples of the individual components for testing in an approved laboratory, field tests on the assembled working structural glazing as specified, cleaning and protection till the handing over of the building for occupation. In the end, the Contractor shall provide a water tight structural glazing having all the performance characteristics etc. all complete as required, as per the Architectural drawings, as per item description, as specified, as per the approved	**Sqm**	**3111.35**

		shop drawings and as directed by the Engineer- in-Charge		
		Note:- 1. The cost of providing extruded aluminium frames, shadow boxes, extruded aluminium section capping for fixing in the grooves of the curtain glazing and vermin proof stainless steel wire mesh shall be paid for separately under relevant items under this sub- head. However, for the purpose of payment, only the actual area of structural glazing (includingwidth of grooves) on the external face shall be measured in sqm. Up to two decimal places		
		Note:-2. The following performance test are to be conducted on structural glazing system if area of structural glazing exceeds 2500 Sqm from the certified laboratories accreditated by NABL(National Accreditation Board for Testing and Calibration Laboratories), Department of Science & Technologies, India. Cost of testing is payable separately.		
		Total for Finishing Works		
6		**Site Development Work**		
6.1	16.68	Providing and laying 60mm thick factory made cement concrete interlocking paver block of M -30 grade made by block making machine with strong vibratory compaction, of approved size, design & shape, laid in required colour and pattern over and including 50mm thick compacted bed of fine sand, filling the joints with fine sand etc. all complete as per the direction of Engineer-in-charge.	Sqm	951.00
6.2	16.69	Providing and laying at or near ground level factory made kerb stone of M-25 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1	Cum.	8613.55
		cement: 3 coarse sand) including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in- charge).		
6.3	16.89	Providing and laying matt finished vitrified tile of size 300x300x9.8 mm having with water absorption less than 0.5% and conforming to IS: 15622 of approved make in all colours and shades in for outdoor floors such as footpath, court yard, multi modals location etc., laid on 20mm thick base of cement mortar 1:4 (1cement : 4 coarse sand) in all shapes & patterns including grouting the joints with white cement mixed with matching pigments etc. complete as per direction of Engineer-in-Charge.	Sqm	1250.75

		Total of Site Development Work		
7		**WATERPROOFING WORK**		
7.1	22.5	Providing and laying water proofing treatment in sunken portion of WCs, bathroom etc., by applying cement slurry mixed with water proofing cement compound consisting of applying: a) First layer of slurry of cement @ 0.488 kg/sqm mixed with water proofing cement compound @ 0.253 kg/sqm. This layer will be allowed to air cure for 4 hours. B) Second layer of slurry of cement @ 0.242 kg/sqm mixed with water proofing cement compound @ 0.126 kg/sqm. This layer will be allowed to air cure for 4 hours followed with water curing for 48 hours. The rate includes preparation of surface, treatment and sealing of all joints, corners, junctions of pipes and masonry with polymer mixed slurry.	Sqm	516.60
7.2	22.7	Providing and laying integral cement-based water proofing treatment including preparation of surface as required for treatment of roofs, balconies, terraces etc consisting of following operations: a) Applying a slurry coat of neat cement using 2.75		
		kg/sqm of cement admixed with water proofing compound conforming to IS. 2645 and approved by Engineer-in-charge over the RCC slab including adjoining walls up to 300 mm height including cleaning the surface before treatment. B) Laying brick bats with mortar using broken bricks/brick bats 25 mm to 115 mm size with 50% of cement mortar 1:5 (1 cement : 5 coarse sand) admixed with water proofing compound conforming to IS : 2645 and approved by Engineer-in-charge over 20 mm thick layer of cement mortar of mix 1:5 (1 cement :5 coarse sand) admixed with water proofing compound conforming to IS : 2645 and approved by Engineer-in-charge to required slope and treating similarly the adjoining walls up to 300 mm height including rounding of junctions of walls and slabs c) After two days of proper curing applying a second coat of cement slurry using 2.75 kg/ sqm of cement admixed with water proofing compound conforming to IS : 2645 and approved by Engineer-in-charge.		

		d) Finishing the surface with 20 mm thick jointless cement mortar of mix 1:4 (1 cement :4 coarse sand) admixed with water proofing compound conforming to IS : 2645 and approved by Engineer- in-charge including laying glass fibre cloth of approved quality in top layer of plaster and finally finishing the surface with trowel with neat cement slurry and making pattern of 300x300 mm square 3 mm deep. E) The whole terrace so finished shall be flooded with water for a minimum period of two weeks for curing and for final test. All above operations to be done in order and as directed and specified by the Engineer-in-Charge:		
7.2.1	22.7.1	With average thickness of 120 mm and minimum thickness at khurra as 65mm.	sqm	1522.95
		Total for Waterproofing Works		
8		**ANY OTHER ITEMS UNDER DSR-2021**		
		(i) For finishing works,structure works and all works like Utility diversion such as sewer, storm water drain / water supply line etc, road work and any other contingencies / items which a not covered in BOO and covered in DSR 2021.	LS	~~2632766~~ **3000000.00**

Signature of Authorized Signatory

Annexure – C 1.2

Water Supply & Drainage Works

Summary Sheet for Water Supply & Drainage Works

S.N.	DESCRIPTION	AMOUNT (Rs)
1	TOTAL OF SEWERAGE AND DRAINAGE SYSTEM	14561532
2	TOTAL OF SOIL WASTE VENT & RAINWATER PIPES AND FITTINGS	1057616
3	TOTAL OF WATER SUPPLY	8431862
4	TOTAL OF SANITARY FIXTURES	1229440
5	TOTAL FOR RAINWATER HARVESTING AND BORE WELL	7819550
	TOTAL OF PLUMBING WORKS	**33100000**

Signature of Authorized Signatory
On behalf of Tenderer

ANNEXURE – C 1.2

WATER SUPPLY & DRAINAGE WORKS

	DSR 2021			
S. NO.	**(Code No.)**	**Item Description**	**Units**	**Rate**
1		**SEWERAGE AND DRAINAGE SYSTEM**		
1.1	DSR 19.1	Providing, laying and jointing glazed stone ware pipes class SP-1 with stiff mixture of cement mortar in the proportion of 1:1 (1 cement: 1 fine sand) including testing of joints, etc. complete.		
1.1.1	DSR 19.1.3	200mm dia pipe	RM	830.40
1.1.2	DSR 19.1.4	250mm dia pipe	RM	1293.90
1.2	DSR 19.2	Providing and laying cement concrete 1:5:10 (1 cement: 5 coarse sands: 10 graded stone aggregate 40mm nominal size) alround S.W pipes including bed concrete as per standard design.		
1.2.1	DSR 19.2.3	200mm dia pipe	RM	1276.70
1.2.2	DSR 19.2.4	250mm dia pipe	RM	1476.35
1.3	DSR 19.6	Providing and laying non-pressure NP2 class (light duty) RCC pipes with collars jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement: 2 find sand) including testing of joints etc. complete.		
1.3.1	DSR 19.6.3	250mm dia RCC Pipe	RM	811.15
1.3.2	DSR 19.6.4	300mm dia RCC Pipe	RM	902.05
1.3.3	DSR 19.6.5	450mm dia RCC Pipe	RM	1481.55
1.4	DSR 19.3	Providing and laying cement concrete 1:5:10(1 cement: 5 coarse sands: 10 graded stone aggregate 40mm nominal size) up to haunches of SW including bed concrete as per standard design		
1.4.1	DSR 19.3.4	250mm dia SW pipe	RM	943.90
1.4.2	DSR 19.3.5	300mm dia S.W Pipe	RM	1080.10
1.5	DSR 19.4	Providing and fixing square mouth S.W. gully trap class SP – 1 complete with C.I. Grating brick masonry chamber with watertight C.I. Cover with frame of 300 x 300mm size (inside) the weighing of cover to be not less than 4.5 kg. and frame to be not less than 2.70 kg. as per standard design.		
1.5.1	DSR 19.4.2	150 x 100mm size P-type		
1.5.1.1	DSR 19.4.2.1	With common burnt clay F.P.S (non modular) bricks of class designation 7.5	Each	2474.40
1.6	DSR 19.7	Constructing brick masonry manhole in cement mortar 1:4 (1 cement: 4 coarse sand), R.C.C. top slab in 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size), foundation concrete 1:4:8 mix (1 cement : 4 coarse sand : 8 graded stone aggregate 40mm nominal size) inside plastering 12mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement and making channels in cement concrete 1:2:4 (1 cement : 2 coarse sand: 4 graded stone aggregate 20mm nominal size) finished with a floating coat of neat cementcomplete as per standard design.		

1.6.1	DSR 19.7.1	Inside size 90cm x 80cm and 45 cm deep including C.I Cover with frame (light duty) 455x610 mm internal diemnsions total weight of cover and frame to be not less than 38 kg (weight of cover 23kg and weight of frame 15kg).		
1.6.1.1	DSR 19.7.1.1	With common burnt clay F.P.S (non modular) bricks of class designation 7.5	Each	11687.10
1.6.2	DSR 19.7.2	Inside size 120x90 cm and 90 cm deep including C.I. cover with frame (medium duty) 500 mm internal diameter, total weight of cover and frame to be not less than 116 kg (weight of cover 58 kg and weight of frame 58 kg)		
1.6.2.1	DSR 19.7.2.1	With common burnt clay F.P.S (non modular) bricks of class designation 7.5	Each	24405.90
1.6.3	DSR 19.8	Extra for depth for manholes:		
1.6.3.1	DSR 19.8.1	Size 90 x 80 cm		
1.6.3.1.1	DSR 19.8.1.1	With common burnt clay F.P.S (non modular) bricks of class designation 7.5	Metre	8127.45
1.6.3.2	DSR 19.8.2	Size 120x90cm		
1.6.3.2.1	DSR 19.8.2.1	With common burnt clay F.P.S (non modular) bricks of class designation 7.5	Metre	9744.25
1.7	DSR 19.9	Constructing brick masonry circular type manhole 0.91m internal dia at bottom and 0.56m dia at in cement mortar 1:4 (1 cement : 4 coarse sand), in side cement plaster 12mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement, foundation concrete 1:3:6 mix (1 cement: 3 coarse sand : 6 graded stone aggregate 40mm nominal size), and making necessary channel in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) finished with a floating coat of neat cement all complete as per standard design		
1.7.1	DSR 19.9.1	0.91m deep with S.F.R.C. cover and frame (heavy duty HD-20 grade designation) 560mm internal diameter conforming to I.S. 12592, total weight of cover and frame to be not less than 182 kg., fixed in cement concrete 1:2:4 (1 cement: 2 coarse sand: 4 graded stone aggregate 20mm nominal size) including centering shuttering all complete. (Excavation, footrests and 12mm thick cement plaster at the external surface shall be paid for separately).		
1.7.1.1	DSR 19.9.1.1	With common burnt clay F.P.S (non modular) bricks of class designation 7.5	Each	11886.45
1.7.2	DSR 19.10	Extra depth for circular type manhole 0.91m internal dia (at bottom) with beyond 0.91m to 1.67m)		
1.7.2.1	DSR 19.10.1	With common burnt clay F.P.S (non modular) bricks of class designation 7.5	RM	6986.80

1.8	DSR 19.11	Constructing brick masonry circular manhole 1.22m internal dia at bottom and 0.56m dia at top in cement mortar 1:4 (1 cement : 4 coarse sand), inside cement plaster 12mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement, foundation concrete 1:3:6 mix (1 cement : 3 coarse sand : 6 graded stone aggregate 40mm nominal size), and making necessary channel in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) finished with a floating coat of neat cement all complete as per standard design		
1.8.1	DSR 19.11.1	1.68m deep with S.F.R.C. cover and frame (heavy duty HD-20 grade designation) 560mm internal diameter conforming to I.S. 12592, total weight of cover and frame to be not less than 182 kg., fixed in cement concrete 1:2:4 (1 cement: 2 coarse sand: 4 graded stone aggregate 20mm nominal size) including centering shuttering all complete. (Excavation, footrests and 12mm thick cement plaster at the external surface shall be paid for separately).		
1.8.1.1	DSR 19.11.1.1	With common burnt clay F.P.S (non modular) bricks of class designation 7.5	RM	22951.95
1.8.2	DSR 19.12	Extra depth for circular type manhole 1.22m internal dia (at bottom) beyond 1.68m to 2.29m.		
1.8.2.1	DSR 19.12.1	With common burnt clay F.P.S (non modular) bricks of class designation 7.5	RM	9068.35
1.9	DSR 19.16	Providing and orange colour safety foot rest of minimum 6mm thick plastic encapsulated as per IS 10910 on 12mm dia steel bar conforming to IS 1786 having minimum cross section as 23mm x 25mm and over all minimum length 263 mm and width as 165 mm with minimum 112mm space between protruded legs having 2mm tread on top surface by ribbing or chequering besides necessary and adequate anchoring projections on tail length on 138mm as per standards drawing and suitable to with stand the bend test and chemical resistance test as per specification and having manufactures permanent identification mark to be visible even after fixing including fixing in manholes with 30x20x15 cm cement concrete blocks 1:3:6(1cement 3 coarse sand 6 grades stone aggregate 20mm nominal size) complete as per design	Nos.	487.10
1.10	DSR 19.21	Making connection of drain or sewer line with existing manhole including breaking into and making good the walls floors with cement concrete 1:2:4 mix (1 cement 2 coarse sand 4 grades stone aggregate 20mm nominal size) cement plastered on both sides with cement mortar 1:3(1 cement 3 coarse sand) finished with a floating coat of neat cement and making I channels for the drain etc. complete		
1.10.1	DSR 19.21.1	For pipes 100 to 250 mm diameter	Each	683.70
1.10.2	DSR 19.21.3	For pipes 350 to 450 mm diameter	Each	1134.65

1.11	DSR 19.27	Constructing brick masonry road gully chamber 50x45x60 cm with bricks in cement mortar 1:4 (1 cement: 4 coarse sand) including 500x450 mm pre- cast R.C.C. horizontal grating with frame completes as per standard design:		
1.11.1	DSR 19.27.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	Each	5589.45
1.12	DSR 18.27	conforming to IS:1536 class 'LA' including all fittings conforming to IS: 1538 e.g. bends, tees, reducers, blank flanges, drip seal/lead joints as per IS: 3114, effective proper connection (For External Sewer Line + Bypass line from Equalization tank to municipal sewer) complete i/c excavation/back filling, bed concrete, sand bed, painting two or more coats with synthetic enamel paint over a coat of primer.		
1.12.1	DSR 18.27.3	150mm dia	RM	1824.70
1.12.2	DSR 18.27.4	200mm dia	RM	3083.65
		TOTAL OF SUCTION AND DELIVERY PIPES AND VALVES FOR WATER SUPPLY PUMPS		**14561532.00**
2		**SOIL WASTE & VENT, RAINWATER PIPES AND FITTINGS**		
2.1	DSR 12.41	Providing and fixing on wall face 102itumastic102ed Rigid PVC rainwater pipes conforming to IS: 13592 Type A, including jointing with seal ring conforming to IS: 5382, leaving 10 mm gap for thermal expansion, (i) Single socketed pipes.		
2.1.1	DSR 12.41.2	110 mm dia	RM	319.75
2.2	DSR 4.1	Providing and laying in position cement concrete of specified grade excluding the cost of centring and shuttering – All work up to plinth level.		
2.2.1	DSR 4.1.3	1:2:4 (1 cement: 2 coarse sands: 4 graded stone aggregate 20 mm nominal size)	cum	7365.15
		TOTAL OF SOIL WASTE & VENT, RAINWATER PIPES AND FITTINGS		**1057616.00**
3		**WATER SUPPLY**		
3.1	DSR 18.7	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot &cold-water supply, including all CPVC plain & brass threaded fittings, including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and testing of joints complete as per direction of Engineer in Charge.		
		Internal work – Exposed on wall		
3.1.1	DSR 18.7.1	15 mm nominal outer dia Pipes	RM	255.90
3.1.2	DSR 18.7.2	20 mm nominal outer dia Pipes	RM	325.10
3.1.3	DSR 18.7.3	25mm nominal outer dia Pipes	RM	408.55
3.1.4	DSR 18.7.4	32 mm nominal outer dia Pipes	RM	500.95
3.1.5	DSR 18.7.5	40 mm nominal outer dia Pipes	RM	674.35
3.1.6	DSR 18.7.6	50 mm nominal outer dia Pipes	RM	927.00

3.2	DSR 18.8	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot &cold-water supply, including all CPVC plain & brass threaded fittings, i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in Charge.		
		Concealed work, including cutting chases and making good the walls etc.		
3.2.1	DSR 18.8.1	15 mm nominal outer dia Pipes	RM	441.15
3.2.2	DSR 18.8.2	20 mm nominal outer dia Pipes	RM	513.75
3.2.3	DSR 18.8.3	25mm nominal outer dia Pipes	RM	626.05
3.2.4	DSR 18.8.4	32 mm nominal outer dia Pipes	RM	712.75
3.3	DSR 18.41	Providing and fiilling sand of grading zone V or coarser grade all-round the G.I. pipes in external work.		
3.3.1	DSR 18.41.7	65mm nominal bore	RM	279.20
3.3.2	DSR 18.41.8	80mm nominal bore	RM	287.70
3.4	DSR 18.20	Providing and fixing brass ferrule with C.I. Mouth cover including boring and tapping the main:		
3.4.1	DSR 18.20.3	25 mm dia.nominal bore	Nos.	447.00
3.5	DSR 18.33	Constructing masonry Chamber 60x60x75 cm inside, in brick work in cement mortar 1:4 (1 cement : 4 coarse sand) for sluice valve, with C.I. surface box 100mm top diameter, 160 mm bottom diameter and 180 mm deep (inside) with chained lid and RCC top slab 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) , i/c necessary excavation, foundation concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3 coarse sand) 12 mm thick, finished with a floating coat of neat cement complete as per standard design :		
3.5.1	DSR 18.33.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	Each	10102.50
3.6	DSR 18.30	Providing and fixing D.I. pipes with cement lining conforming to IS 8329 complete with D.I. fittings as required.		
3.6.1	DSR 18.30.4	150mm dia nominal bore	Each	343.55
		TOTAL OF WATER SUPPLY		**8431862.00**
4		**SANITARY FIXTURES**		
		Note: The fixtures used shall be low flow and must confirms to norms laid by IGBC.		

4.1	DSR 17.1	Providing and fixing water closet squatting pan (Indian type W.C. pan) with 100 mm 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:		
4.1.1	DSR 17.1.1	White Vitreous china Orissa pattern W.C. pan of size 580 x 440 mm with integral type footrests	Each	5781.35
4.2	DSR 17.3	Providing and fixing white vitreous china pedestal type water closet (European type) with seat and lid, 10 litre low level white vitreous china flushing cistern & C.P. flush bend with fittings & C.I.brackets, 40 mm flush bend, overflow arrangement with specials of standard makes and mosquito proof coupling of approved municipal design complete, including painting of fittings and brackets, cutting and making good the walls and floors wherever required:		
4.2.1	DSR 17.3.1	W.C. pan with ISI marked white solid plastic seat and lid	Nos.	6941.30
4.3	DSR 17.4	Providing and fixing white vitreous china flat back or wall corner type lipped front urinal basin of 430x260x350 mm and 340x410x265 mm 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:		
4.3.1	DSR 17.4.3	Range of three urinal basins with 10litre white P.V.C. automatic flushing cistern	Nos.	11256.40
4.3.2	DSR 17.4.4	Range of four urinal basins with 10 litre white P.V.C. automatic flushing cistern	Each	15564.35
4.4	DSR 17.7	Providing and fixing wash basin with CI brackets 32mm CP brass waste of standard pattern including painting of fittings and brackets cutting and making good the walls wherever required		
4.4.1	DSR 17.7.1	White Vitreous china Wash basin of size 630 x 450mm with a pair of 15mm C.P brass pillar taps.	Each	3392.85
4.4.2	DSR 17.7.4	White Vitreous china Flat Back Wash basin of size 550 x 400mm with single 15mm C.P brass pillar taps.	Each	2731.45
4.5	DSR 17.34	Providing and fixing toilet paper holder.		
4.5.1	DSR 17.34.1	CP Brass	Each	680.80
4.6	DSR 18.15	Providing and fixing C.P. brass bib cock of approved quality confirming to IS: 8931		
4.6.1	DSR 18.15.1	15mm dia nominal bore	Each	303.85
4.7	DSR 17.31	Providing and fixing 600x450 mm bevelled edge mirror of superior glass (of approved quality) completes with 6 mm thick hard board ground fixed to wooden cleats with C.P. brass screws and washers complete.	Each	1411.15

4.8	DSR 18.16	Providing and fixing C.P. brass stop cock (concealed) of standard design and of approved make conforming to IS:8931.		
4.8.1	DSR 18.16.1	15 mm nominal bore	Each	303.85
4.9	DSR 18.53	Providing and fixing C.P brass angle valve for basin mixer and geyser points of approved quality conforming to IS:8931		
4.9.1	DSR 18.53.1	15 mm nominal bore	Each	500.35
4.1	DSR 17.70	Providing and fixing PTMT Bottle Trap for Wash basin and sink.		
4.10.1	DSR 17.70.1	Bottle trap 31mm single piece moulded with height of 270 mm, effective length of tail pipe 260 mm from the centre of the waste coupling, 77 mm breadth with 25 mm minimum water seal, weighing not less than 260 gms	Each	325.10
		TOTAL OF SANITARY FIXTURES		**1229440.00**
5		**RAINWATER HARVESTING & BORE WELL**		
5.1	DSR 23.1	Boring/drilling bore well of required dia for casing/ strainer pipe, by suitable method prescribed in IS: 2800 (part I), including collecting samples from different strata, preparing and submitting strata chart/ bore log, including hire & running charges of all equipments, tools, plants & machineries required for the job, all complete as per direction of Engineer-in-charge, upto 90 metre depth below ground level.		
5.1.1	DSR 23.1.1	All types of soil		
5.1.1.1	DSR 23.1.1.1	300 mm dia	Metre	592.05
5.2	DSR 23.2	Boring/drilling bore well of required dia for casing/ strainer pipe, bysuitable method prescribed in IS: 2800 (part I), including collecting samples from different strata, preparing and submitting strata chart/bore log, including hire & running charges of all equipments, tools, plants & machineries required for the job, all complete as per direction of Engineer -in-charge, beyond 90 metre &upto 150 metre depth below ground level.		
5.2.1	DSR 23.2.1	All types of soil		
5.2.1.1	DSR 23.2.1.1	300 mm dia	Metre	690.70
5.3	DSR 23.3	Supplying, assembling, lowering and fixing in vertical position in bore well, unplasticized PVC medium well casing (CM) pipe of required dia, conforming to IS: 12818, including required hire and labour charges, fittings & accessories etc. all complete, for all depths, as per direction of Engineer -in-charge.		
5.3.1	DSR 23.3.3	200 mm nominal size dia	Metre	971.30

5.4	DSR 23.4	Supplying, assembling, lowering and fixing in vertical position in bore well unplasticized PVC medium well screen (RMS) pipes with ribs, conforming to IS: 12818, including hire & labour charges, fittings & accessories etc. all complete, for all depths, as per direction of Engineer-in-charge.		
5.4.1	DSR 23.4.3	200 mm nominal size dia	Metre	1099.25
5.5	DSR 23.5	Supplying, filling, spreading &106itumasti stone boulders of size range 5 cm to 20 cm, in recharge pit, in the required thickness, for all leads & lifts, all complete as per direction of Engineer-in-charge.	Cum	1302.30
5.6	DSR 23.6	Supplying, filling, spreading &106itumasti gravels of size range 5 mm to 10 mm, in the recharge pit, over the existing layer of boulders, in required thickness, for all leads & lifts, all complete as per direction of Engineer-in-charge.	Cum	1309.00
5.7	DSR 23.7	Supplying, filling, spreading &106itumasti coarse sand of size range 1.5 mm to 2 mm in recharge pit, in required thickness over gravel layer, for all leads & lifts, all complete as per direction of Engineer-in-charge.	Cum	1309.00
5.8	DSR 23.8	Gravel packing in tubewell construction in accordance with IS: 4097, including providing gravel fine/ medium/ coarse, in required grading & sizes as per actual requirement, all complete as per direction of Engineer-in-charge.	Cum	1479.25
5.9	DSR 23.9	Providing and fixing factory made precast RCC perforated drain covers, having concrete of strength not less than M-25, of size 1000 x 450x50 mm, reinforced with 8 mm dia four no longitudinal & 9 nos cross sectional T.M.T. hoop bars, including providing 50 mm dia perforations @ 100 to 125 mm c/c, including providing edge binding with M.S. flats of size 50 mm x 1.6 mmcomplete, all as per direction of Engineer-in-charge.	Each	1213.25
5.10	DSR 23.10	Supplying, assembling, lowering and fixing in vertical position in bore well, ERW (Electric Resistance Welded) FE 410 mild steel screwed and socketed/ plain ended casing pipes of required dia, conforming to IS: 4270, of reputed & approved make, including painted with outside surface with two coats of anti-corrosive paint of approved brand and nufacture, including required hire & labour charges,fittings& accessories, all complete, for all depths, as per direction of Engineer-in-charge.		
5.10.1	DSR 23.10.3	200 mm nominal size dia having minimum wall thickness 5.40 mm	Metre	2082.10

5.11	DSR 23.11	Supplying, assembling, lowering and fixing in vertical position in bore well, ERW (Electric Resistance Welded) FE 410 plain slotted (having slot of size 1.6/3.2 mm) mild steel threaded and socketed / plain bevel ended pipe (type A) of required dia, conforming to IS:8110, of reputed and approved make, having wall thickness not less than 5.40 mm, including painted with outside surface with two coats of anticorrosive 107itumastic paint of approved brand and manufacture, including hire & labour charges, fittings & accessories, all complete, for all depths, as per direction of Engineer-in-charge.		
5.11.1	DSR 23.11.3	200 mm nominal size dia	Metre	2194.85
5.12	DSR 23.12	Development of tube well in accordance with IS : 2800 (part I) and IS: 11189, to establish maximum rate of usable water yield without sand content (beyond permissible limit), with required capacity air compressor, running the compressor for required time till well is fully developed, measuring yield of well by "V" notch method or any other approved method, measuring static level & draw down etc. by step draw down method, collecting water samples & getting tested in approved laboratory, i/c disinfection of tubewell, all complete, including hire & labour charges of air compressor, tools & accessories etc., all as per requirement and direction of Engineer-in-charge.	Hour	916.80
5.13	DSR 23.13	Providing and fixing suitable size threaded mild steel cap or spot-welded plate to the top of bore well housing/ casing pipe, removable as per requirement, all complete for borewell of:		
5.13.1	DSR 23.13.3	200 mm dia	Each	280.95
5.14	DSR 23.14	Providing and fixing M.S. clamp of required dia to the top of casing/ housing pipe of tubewell as per IS: 2800 (part I), including necessary bolts & nuts of required size complete.		
5.14.1	DSR 23.14.3	200 mm clamp	Each	1827.00
5.15	DSR 23.15	Providing and fixing Bail plug/ Bottom plug of required dia to the bottom of pipe assembly of tubewell as per IS:2800 (part I).		
5.15.1	DSR 23.15.3	200 mm dia	Each	308.55
		TOTAL FOR RAINWATER HARVESTING AND BORE WELL		**7819550.00**
		TOTAL FOR SCHEDULE C-1.2: PLUMBING WORKS		**33100000.00**

Signature of Authorized Signatory
On behalf of Tenderer

SCHEDULE-C

ANNEXURE – C 1.3

S.No.	Description	QTY	Amount in Cr. (INR)
1	Works under DSR- 2021 (civil works) All works related to finishing works, sewage & drainage works, Fire doors, Uncharted utilities etc. or any other items works which are not covered in schedule A, B, C 1.1 & C 1.2 and is to be executed as per the direction of Engineer.	(Lump sum)	~~20~~ **31.53**

Signature of Authorized Signatory
On behalf of Tenderer

SCHEDULE-C

ANNEXURE – C 2

S.No.	Description	QTY	Amount in Cr. (INR)
1	Works under DSR- 2022 (for Electrical Works)	(Lump sum)	~~2.00~~ **10.00**

Signature of Authorized Signatory
On behalf of Tenderer

SCHEDULE-C

ANNEXURE – C 3

S.No.	Description	QTY	Amount in Cr. (INR)
1	Works under DSR- 2020 (for Horticulture works)	(Lump sum)	~~2.00~~ **5.00**

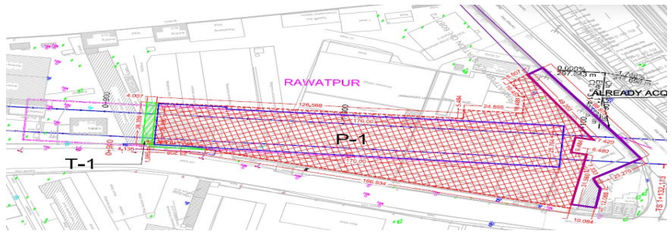
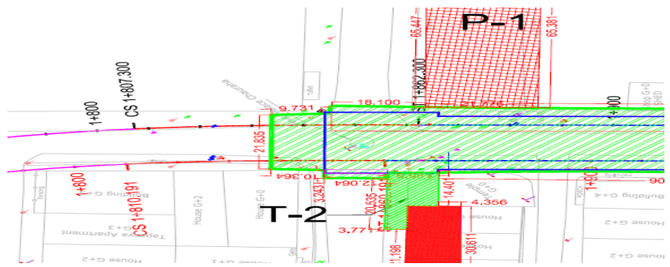
Signature of Authorized Signatory
On behalf of Tenderer

ANNEXURE – A : Load Combinations

Load Case Detail	LC No.	ULS STATIC				
		1001	1002	1003	1004	1005
		Submerged soil(water 20yrs+4m)				
		Max H - Max V	Max H - Max V (w/o LL)	Max H - Min V	Min H - Max V	Min H - Max V (w/o LL)
Self-Weight	1	1.5	1.5	1.0	1.5	1.5
SIDL	2	1.5	1.5	1.0	1.5	1.5
Soil Backfill	3	1.5	1.5	1.0	1.5	1.5
Live Load on Concourse & Platform	4	1.5	~~0~~ **1.5**	0	1.5	~~0~~ **1.5**
Train Live Load	5	1.5	0	0	1.5	0
Lateral Pressure Sub – Ko	6	1.5	1.5	1.5	0	0
Lateral Pressure Sub – Ka	7	0	0	0	1.0	1.0
Lateral Pressure Sat – Ko	8	0	0	0	0	0
Lateral Pressure Sat – Ka	9	0	0	0	0	0
Vertical Surcharge Load	10	1.5	1.5	0	1.5	1.5
Lateral Surcharge (Right)	11	0	0	0	0	0
Lateral Surcharge (Left)	12	0	0	0	0	0
Lateral Surcharge (Both Side)	13	1.5	1.5	1.5	0	0
Water Pressure on Walls (Design water level) **	14	1.5	1.5	1.5	1.0	1.0
Water Pressure Uplift (Ground water level)	15	~~1.5~~ **1.0**	~~1.5~~ **1.0**	1.0	~~1.5~~ **1.0**	~~1.5~~ **1.0**
Racking Force (Towards Right)	16	0	0	0	0	0
Racking Force (Towards Left)	17	0	0	0	0	0

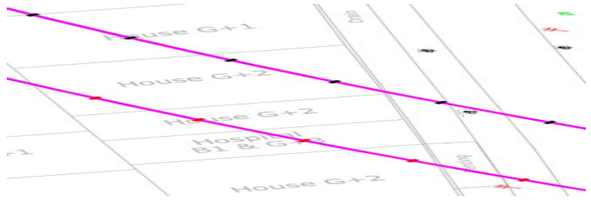
Load Case Detail	LC No.	ULS SEISMIC (Racking)	
		3001	3002
		Submerged Soil (Water @ 20 yrs + 4m)	
Self-Weight	1	1.5	1.5
SIDL	2	1.5	1.5
Soil Backfill	3	1.5	1.5
Live Load on Concourse & Platform	4	0	0
Train Live Load	5	0	0
Lateral Pressure Sub - Ko	6	1.5	1.5
Lateral Pressure Sub - Ka	7	0	0
Lateral Pressure Sat - Ko	8	0	0
Lateral Pressure Sat - Ka	9	0	0
Vertical Surcharge Load	10	1.5	1.5
Lateral Surcharge (Right)	11	1.5	0
Lateral Surcharge (Left)	12	0	1.5
Lateral Surcharge (Both Side)	13	0	0
Water Pressure on Walls (Design water level) **	14	1.5	1.5
Water Pressure Uplift (Ground water level)	15	~~1.5~~ **1.0**	~~1.5~~ **1.0**
Racking Force conc. (Towards Right)	16	1.5	0
Racking Force conc. (Towards Left)	17	0	1.5

Load Case Detail	LC No.	ULS SEISMIC (Racking)					
		3003	3004	3005	3006	3007	3008
		Submerged Soil (Water @ 20 yrs + 4m)					
Self-Weight	1	1.2	1.2	1.0	1.0	1.2	1.2
SIDL	2	1.2	1.2	1.0	1.0	1.2	1.2
Soil Backfill	3	1.2	1.2	1.0	1.0	1.2	1.2
Live Load on Concourse & Platform	4	0.6	0.6	0	0	0.6	0.6
Train Live Load	5	1.2	1.2	0	0	1.2	1.2
Lateral Pressure Sub - K0	6	1.2	1.2	1.2	1.2	0	0
Lateral Pressure Sub - Ka	7	0	0	0	0	1.0	1.0
Lateral Pressure Sat - K0	8	0	0	0	0	0	0
Lateral Pressure Sat - Ka	9	0	0	0	0	0	0
Vertical Surcharge Load	10	1.2	1.2	0	0	1.2	1.2
Lateral Surcharge (Right)	11	1.2	0	1.2	0	0	0
Lateral Surcharge (Left)	12	0	1.2	0	1.2	0	0
Lateral Surcharge (Both Side)	13	0	0	0	0	0	0
Water Pressure on Walls (Design water level) **	14	1.2	1.2	1.2	1.2	1.2	1.2
Water Pressure Uplift (Ground water level)	15	~~1.2~~ **1.0**	~~1.2~~ **1.0**	~~1.2~~ **1.0**	~~1.2~~ **1.0**	~~1.2~~ **1.0**	~~1.2~~ **1.0**
Racking Force udl(Towards Right)	16	1.2	0	1.2	0	1.2	0
Racking Force udl (Towards Left)	17	0	1.2	0	1.2	0	1.2

Reply to Pre-bid queries : Tender KNPCC-11					
Tender KNPCC-11: Design and Construction of TBM Tunnel, Cut & Cover Tunnel, ramp after Double Pullia, ramps in Agriculture Depot for main line and depot connections and three underground metro stations (viz. Rawatpur, Kakadeo and Double Pullia) including Architectural finishes etc. on Corridor-2 of Kanpur MRTS Project at Kanpur, Uttar Pradesh, India					
Sl. No.	**Bidder's S.No.**	**Reference Volume / Clause**	**Existing Clause**	**Queries**	**UPMRC's Reply**
Bidder 1					
1	1	Vol.-3 ,Employers Requirement, Functional	The contractor shall plan launching/ retrieving shaft/s inside the station box unless otherwise shown in the General Alignment Drawings and properly integrate the tunnel structure with the proposed station. Area available in medical college campus shall be used only for retrieval of TBM.	It is clearly stated that Temporary Area available inside medical college campus shall be used for Retrieval of TBM only, and this leads us to understand that TBM launching needs to be carried out from **Rawatpur** End. However, during site visit, it is observed that the area provided at shaft location is quite small and insufficient to allow stacking of TBM components during launching and also insufficient to enable stacking of segments and create muck pit and it is also not possible to establish other facilities for **TBM drive towards shaft in medical** college campus. Hence, we request Employer to kindly look into the same and provide sufficient area for TBM launching. 	Please refer Annexure 16 of Addendum-05.
2	2	Vol.-6 Drawings	Work Area Drawing Kakadeo Station: KNPDD01-TDR-KNPCC-11/WORK AREA/KKD/03	During Site Visit it is observed that Shaft location falls right below Devi Palace Chowraha which will cause issue during traffic diversion. Hence, we request Employer to shift shaft slight ahead in order to avoid chowraha to ease traffic movement. Alternatively allow closing of Road and allow traffic through adjacent lanes. 	As per tender conditions.
3	3	Vol.-2 Clause: 11.2.1 of GCC, Mobilization Advance Clause: 11.2.1 of SCC, Mobilization Advance Payment , GCC, Page no. 54, SCC, Page no. 106	**GCC:** Mobilization Advance shall be generally 5% of original contract value payable in two equal installments or as mentioned in the Special Conditions of Contract. The first installment shall be paid after mobilisation has started and next installment shall be paid after satisfactory utilization of earlier installment. **SCC:** Clause 11.2.1 of GCC is modified as under: Mobilization Advance shall be 10% of original contract value payable in two equal installments on the provision by the contractor of an unconditional BG.	We understand that the Mobilization Advance shall be 10% of Contract Value and shall be paid on entire Contract Value i.e. on Sum Total of Schedule-A, B and C. Please confirm.	Special Conditions of contract supercedes/modifies corresponding clause of General Conditions of contract.

Sl. No.	Bidder's S.No.	Reference Volume / Clause	Existing Clause	Queries	UPMRC's Reply
4	4	Vol.-2 Clause: 11.2.2 of GCC, Advance against Plant and Machinery, Clause: 11.2.2 of SCC, Advance Against Plant & Machinery, *, GCC, Page no. 54, SCC, Page no. 106	**GCC:** Plant and machinery advance shall generally be 5% of original contract value or as specified in Special Conditions of Contract. **SCC: .....**The total advance for Plant and Machinery shall be limited to 5% of the total Contract Value of BOQ/Price document and shall be paid against unconditionalBank Guarantees from aSchedule Commercial Bank of India.....	We understand that Advance against Plant & Machinery shall be paid on entire Contract Value i.e. on Sum Total of Schedule-A, B and C. Please confirm.	As per tender conditions.
5	5	Vol.-2, SCC, Clause 11.3.3 SCC, Clause 11.3.3	Recovery shall commence when 20% of the original Contract Value of the work has been paid and it will be completed by the time of original Date of Completion.	i) As per SCC, Cl 11.3.3 It is mentioned that Recovery shall commence when 20% of the original Contract Value of the work has been paid and it will be completed by the time of original Date of Completion. ii) Also as per Cl. 11.2.1 & 11.2.2 it is mentioned that Recovery of advance shall be time bound and shall commence after completion of 6 months from the issue of (LOA) and it will be completed within 24 months from the issue of (LOA). There is ambiguity in both statements hence we request the Employer to clarify the same. However, we request the Employer that recovery of advances be allowed to commence after completion of 20% of Original Contract Value and complete the recovered by the time of Original Date of Completion. This will ease Cash Flow and help expedite the work progress.	Please refer Annexure 6 of Addendum-05.
6	6	Vol.-3 Employers Requirement, Functional Employers Requirement, Functional Clause 2.3	VARIATION (Applicable for Schedule 'A': Lump-sum portion of the Works)	It is mentioned that Variation in terms of Length/ Area is applicable for Tunnel, Cut & Cover, UG Ramp, Station, PEB Works. However, Variation is not provided for Elevated Ramp, Hence, we request Employer to provide variation for Elevated Ramp in terms of length.	As per tender conditions.
7	7	Vol.-2 GCC Clause 11.6.1 GCC Clause 11.6.1	i) After preliminary scrutiny and certification by the Engineer, payment of 80% of the certified interim amount shall be made by the Employer within 14 days. ii) Balance 20% shall be paid within 28 days, from the date of the preliminary certification of the bill by the Engineer.	i) Time required by Engineer for Preliminary scrutinity & Certification from date of submission of IPC by the contractor is not understood and appears high. We request Employer to kindly review and clarify the same. ii) We request Employer to release 80% of payment with 7days of IPC submission & balance 20% within 14 days of bill submission.	As per tender conditions.
8	8	Vol.-2 SCC Clause 11.2.2 SCC, Page no. 106	Advance Against Plant & Machinery : Interest on this advance shall be charged at rate equal to prime lending rate of SBI at the time of release of advance.	We request Employer to provide interest free Plant and Machinery Advance.	As per tender conditions.
9	9	Vol.-2 GCC Clause 2.2 GCC, Page No.12	Handing Over Dates of Land - The Employer shall grant the Contractor right of access to, and / or possession of, the Site progressively for the completion of Works.....	Kindly confirm whether all the land will be handed over in the first month from commencement of works as the possession of Land for Stations is crucial, as all the Key Dates provided in Appendix 2B are critical.	As per tender conditions.
10	10	Vol.-3, ER Part 2, Appendix 2A ER Part 2 , Appendix 2A, Page 64	Work Areas - The employer will provide the work areas of Approx. 6 hectare of land for casting yard for construction of segments for Tunnel construction & stacking Depot within 20 Km radius of work site.	Request you to please confirm whether Land for Casting Yard will be handed over in the first month. The initial Drive of 1st TBM is 37 weeks and therefore, possession of Casting Yard Land in 1st Month is crucial to enable timely commencement of Segment Casting and subsequent commencement of initial Drive in 38th week. We request the Employer to kindly provide schedule for handing over work areas for Employer.	As per tender conditions.
11	11	Vol.-6 Part-I: CIVIL Tender Drawings	AutoCAD Drawings	Request the Employer to kindly provide CAD copy of General Drawings & Architectural drawings.	AutoCad version of all drawing is being provided by email. However, in case of any discrepancy between soft copy and hard copy, hard copy attached with tender will prevail.

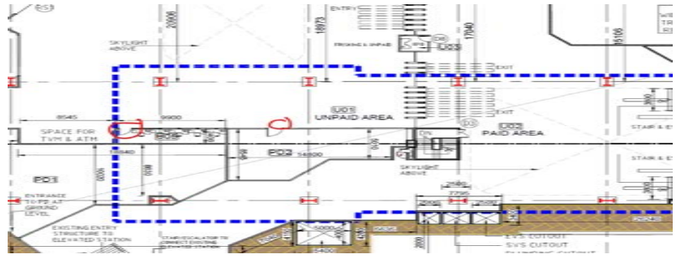
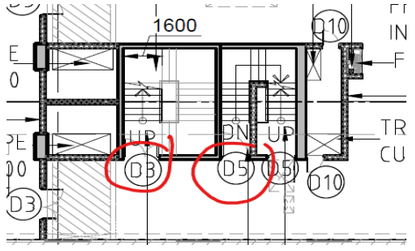
Sl. No.	Bidder's S.No.	Reference Volume / Clause	Existing Clause	Queries	UPMRC's Reply
12	12	Vol.-3, Part-II, Employer Requirements, Appendix 12 Employer Requirements, Appendix 12, Page No. 107	The Contractor shall make his own enquiries and investigations, including excavating trial holes, to ascertain the existence, nature, location and size of utilities.	We understand that the Employer is much aware of the alignment ground condition, and hence we request that the Employer may kindly provide the list of mandatory utilities that have **to be supported in place** in station and Ramp locations which would help the contractor to arrive at supporting arrangement quantities.	As per tender conditions.
13	13	Vol.-3, Part-II, Employer Requirements, Appendix 12 Employer Requirements, Appendix 12, Page No. 107	The Contractor shall make his own enquiries and investigations, including excavating trial holes, to ascertain the existence, nature, location and size of utilities.	Please confirm how will the water pipe line of 1.80 m diameter at Kakadeo be diverted. Request you to kindly share a Diversion Route for this pipe line. As per our assessment, there will be little space outside station box to accommodate the various utilities including large diameter water and sewer lines.	As per tender conditions.
14	14	Vol-2, GCC, Clause 2.2, Access to And Possession of the Site GCC, Page no. 12	For any such delay in handing over of site, Contractors willbe entitled to only reasonable extension of time and no monetary claims whatsoever shall be paid or entertained on this account.	Request to provide provision for suitable cost compensation in the contract if the delay incurred is totally unreasonable and unfair and cannot be foreseen by any experienced Contractor.	As per tender conditions.
15	15	Vol.-3, Part-II, Employer Requirements, Appendix 2B Employer Requirements, Appendix 2B, Page No. 65, 66 & 67	The Key Dates are very stringent and little gap between completion of 1st ASS, ECS, TVF Rooms and completion of ASS, ECS, TVF All Rooms. We find that few Key dates are unachievable, and falling short by 3 to 4 months and therefore require Review at Employer's end. **Description for few Key dates in brief is narrated below for reference:** KD10: 78 Week for Civil Work of ASS Room 1st two Stations KD11: 79 Weeks for Civil Work of ASS Rooms at all Stations KD12: 80 Weeks for Civil Work of Ancilliary all Stations KD13: 81 Weeks for Civil Work of ECS Rooms 1st two Stations KD16: 85 Weeks for Civil Work of ECS Rooms All Stations KD14: 82 Weeks for Civil Work of 1st TVF Room KD17: 85 Weeks for Civil Work of 2nd TVF Room KD15: 82 Weeks for Civil Work for Installtion of Lifts & Escalators from Platform to Concourse KD18: 85 Weeks for Civil Work for Installtion of Lifts & Escalators from Concourse to Ground KD19: 90 Weeks for Civil Work of TER, SCR, SER, UPS, GSM, CDMA Rooms	We request you to kindly revise all the Intermediate Key dates starting from Key Date 7 upto Key Date 24 by increasing the dates by 14 to 24 weeks. We request you to kindly allow following changes in Intermediae Key Dates KD11: 91 Weeks for Civil Work of ASS Rooms at all Stations KD17: 100 Weeks for Civil Work of 2nd TVF Room KD12: 104 Weeks for Civil Work of Ancilliary all Stations KD19: 113 Weeks for Civil Work of TER, SCR, SER, UPS, GSM, CDMA Rooms The over all completion date be extended by ateast 8 weeks.	Please refer Annexure 9 of Addendum-05.
16	16	Vol.-3, Part-II, Employer Requirements, Appendix 2B Employer Requirements, Appendix 2B, Page No. 65, 66 & 67	KD 8 : 70 weeks : Completion of Track way Basic Structure for designated contractors access - Track way including construction of cross passages, 1st stage track bed concrete including drainage for 1st block section between 1st pair of stations (both up and down line)	As per KD 8, which mentions completion of trackway for 1st block section between 1st pair of stations (both up and down line). In Such Case, Contractor is under compulsion to start 1st Drive either between Rawatpur and Kakadeo or between Kakadeo and Double Pulia as a result of which KD10, KD11, KD12 are likely to get affected. Undertaking first TBM drive between Rawatpur and kakadeo is not appropriate, as the Metro Tunnel shall pass under Existing railway Line Tracks and permissions from Railways are hard to come by quickly and likely to cause hindrance in Tunnel Boring Schedule. Hence, we request the Employer to allow Contractor to choose 1st drive based upon Conttactor's own planning and the Key Date KD 8 be shifted by atleast three months.	Please refer Annexure 9 of Addendum-05.

Sl. No.	Bidder's S.No.	Reference Volume / Clause	Existing Clause	Queries	UPMRC's Reply
17	17	Vol.-6 Drawings Part A	GAD UP line : UPMRC/KNPDD-01/KNPCC-11/GAD Sheet 6 of 7	As per Alignment drawing and also from from information collected during the site visit it is observed that TBM tunnel alignment between Kakadeo & Double Pulia passes below Private Hospital building (M/s Aditya Trauma & Medical Centre) having a single level basement below street level (B1 & G+3) . We request employer to kindly provide foundation drawings of the same, as it will enable us plan tunneling below / adjacent of theHospital Building foundation with appropriate safety measures without causing and any movement / settlement of the Building. 	As per tender condition
18	18	Vol.-3, Employer's Requirement, Section-B, Functional Clause 2.3 Employers Requirement, Section–B/Functional, Page 23 & 24	VARIATION (Applicable for Schedule 'A': Lump-sum portion of the Works)	It is mentioned that Variation in terms of Length/ Area is applicable for i) Tunnel , ii) UG Ramp, iii) Station, iv) PEB Works. However, variation is not provided for Cut & Cover Tunnel and Elevated Ramp. Hence, we request Employer to include in above variation for Cut & Cover Ramp and Elevated Ramp in terms of length.	As per tender condition
19	19	Vol-1, NIT Clause 1.1.2 Key Details NIT-4	Approximate Cost of Works : 1025 Crores	We request employer to clarify whether the mentioned approximate cost is including Sch. B (Non DSR items) & Sch C (DSR Items).	As per tender conditions.
20	20	Vol.-2 Clause: 11.2.1 of GCC, Mobilization Advance Clause: 11.2.1 of SCC, Mobilization Advance Payment GCC, Page no. 54, SCC, Page no. 106	**GCC:** Mobilisation Advance shall be generally 5% of original contract value payable in two equal instalments or as mentioned in the Special Conditions of Contract. The first instalment shall be paid after mobilisation has started and next instalment shall be paid after satisfactory utilization of earlier instalment. **SCC:** Clause 11.2.1 of GCC is modified as under: Mobilization Advance shall be 10% of original contract value payable in two equal instalments on the provision by the contractor of an unconditional BG. i) First installment shall be paid on commencement of the work and provision by the contractor of the unconditional BG in respect of the advance. ii) Second instalment shall be paid on certification by the engineer of the contractor's having achieved a financial progress of 10 (ten) per cent of the contract price	We request employer to release second installment of Mobilisation advance on achieving a financial progress of 5% of Contract price instead of 10% to ensure better cashfllow.	Please refer Annexure 6 of Addendum-05.
21	21	General Alignment Drawing -		Please provide .acad/.dwg format of the Alignment Plan and Profile.	AutoCad version of all drawing is being provided by email. However, in case of any discrepancy between soft copy and hard copy, hard copy attached with tender will prevail.

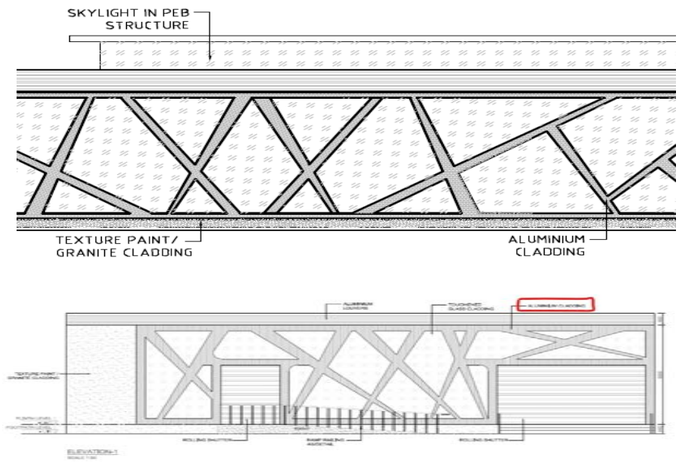
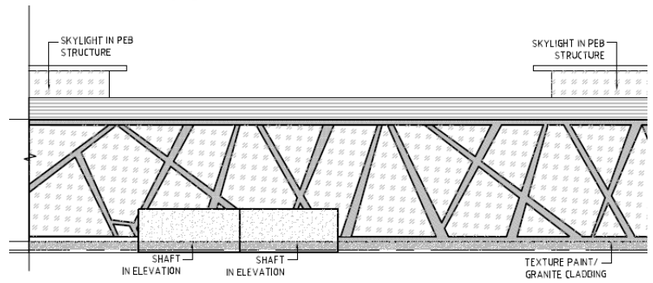
Sl. No.	Bidder's S.No.	Reference Volume / Clause	Existing Clause	Queries	UPMRC's Reply
22	22	General Alignment Drawing -		Alignment are provided only for the Upline. Please provide the details for both upline and downline.	Please refer Annexure 16 of Addendum-05.
23	23	General Alignment Drawing -		The general alignment drawings has name representing upline but in the drawing vertical profile are shown as downline. Please confirm whether the drawings are for up or down profile.	Please refer Annexure 16 of Addendum-05.
24	24	General Alignment Drawing -		The vertical aligment for the connection ramp (main line to depot) is missing in the drawing. Please provide the details for the same.	Please refer Annexure 16 of Addendum-05.
25	25	General Arragement Drawing -		General Arrangment for the ramp and cut & cover structure, beyond the double pulliya station towards barra 8, is absent in the provided drawings. Please provide the details for the same.	Please refer Annexure 16 of Addendum-05.
26	26	General Alignment Drawing		General Arrangment for cut & cover structure at ch 0+190 to 0+200 is infringing with buildings named 'officers quarter type iv G+2 ' & 'Dr AMP Mishra resident G+0'.	Please refer Annexure 16 of Addendum-05.
27	27	General Alignment Drawing		General Arrangment for ramp structure near ch -0+200 is infringing with buildings named 'Oilseed section G+0 ' , Hutments & a temple.	Please refer Annexure 16 of Addendum-05.
28	28	General Arragement Drawing , DWG No. UPMRC-DESIGN-UG-ST-115 -		The chainages reference on the plan in the drawing is not present in the main alignment drawing. Please provide the details to which the present drawings is referenced.	Please refer Annexure 16 of Addendum-05.
29	29	General -		The (corridor 01) pile location and pile cap dimesnion details are different in dwg UPMRC-DESIGN-UG-ST-120 with the provided reference dwg KNPDD-01-DTD-EL0-VDC-DWG-07141	Please refer Annexure 16 of Addendum-05.
30	30	General -	Geological and Gotechnical Appraisal	Total 08 nos. of borehole data available in total stretch. Where the spacing within borehole's is 170.0m to 550.0m, in general the spacing within the borehole must be 50.0 to 100.0m max to get the fair idea about the ground. Please provide if any additional Geotech data is available.	As per tender condition.
31	31	General -	Geological and Gotechnical Appraisal	Please share if any Borehole compression or borehole load test or permeability tests done along the alignment.GIR did not contain any permeability tests data. As we can see the stratum is mixed of nature where the permeability need to be cheched for ground deformations.	As per tender condition.
32	32	General -	Geophysical Investigation	Any Seismic micro zonation mapping study done for the alignment as the project alignment lie in Seismic Zone of III Moderate risk, the project area lies close to Lucknow-Faizabad fault having a seismic gap of 350 years.	As per tender condition.
33	33	General -	Geophisical Investigation	As project area also lie near parallel to the River Ganga. Have any Seismic Studies done in this regards. If Any Studies done please share with us.	As per tender condition.
34	34	General -	Geophisical Investigation	Any advance Geophysical studies like Seismic Refraction Studies done for entire alignment. If any Studies done please share with us.	As per tender condition.
35	35	General -	Geotechnical Investigation	Please share if any grout ability test or the vertical pressure meter test done especially in the zone of tunnel influence.	As per tender condition.
36	36	General -	Tunnels, Stations, Shafts, C & C and Ramp	Is 10mm of diffential settlement for long term settlement and 5mm for short term settlement will suffice the requirement considering the forces resulting with TBM drive and deep exacavtion near to the Bulidings. Is the same Clause applicable for Tunnel Under existing Rail track Please specify the influence zone for all structures.	As per tender condition.
37	37	General -	Building Condition Survey	Please provide us the Building Condition Survey if it is done in details, as per geotechnical report the houses in Kanpur have not incorporated building by-laws, and do not have adequate structural strength to withstand even a moderate earthquake.	As per tender condition.

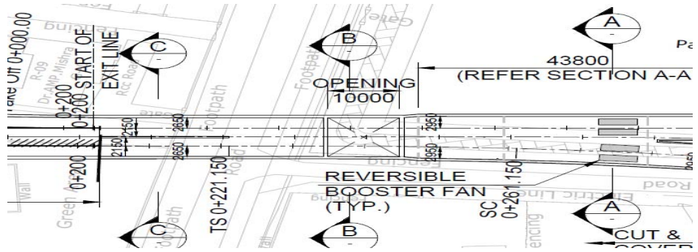
Sl. No.	Bidder's S.No.	Reference Volume / Clause	Existing Clause	Queries	UPMRC's Reply
38	38	General -	Borewell Survey	Please provide us the Borewell Survey if it is done, As mentioned in Geotechnical report most of the buildings are not as per by-laws, that means the chances of unauthorized borewell is more. Please clarify the same.	As per tender condition.
39	39	Volume 6_Drawing_PartD DRG No: KNPAGDDC-01-TDR-RWT-ARC-LGS-41256/ Pg. no. 11	Longitudinal Section of Rawatpur Station	Columns at grid 6,8 are shown till Mid Level only. Please clarify whether it is allowed to take columns till ground entry level.	Please refer Annexure 16 of Addendum-05. Column shall not be allowed in public area.
40	40	Volume 6_Drawing_PartD DRG No: KNPAGDDC-01-TDR-KKD-ARC-LGS-42506/ Pg. No. 21	Longitudinal Section of Kakadeo Station	Columns at grid 8,11 are shown till Concourse Level only. Please clarify whether it is allowed to take columns till Roof Slab level.	Please refer Annexure 16 of Addendum-05. Column shall not be allowed in public area.
41	41	Volume 6_Drawing_PartD DRG No: KNPAGDDC-01-TDR-DPL-ARC-LGS-43006/ Pg. no. 30	Longitudinal Section of Double Pulia Station	Columns at grid 6,11 are shown till Concourse Level only. Please clarify whether it is allowed to take columns till Roof Slab level.	Please refer Annexure 16 of Addendum-05. Column shall not be allowed in public area.
42	42	Volume 4_Outline Design Specification 2.8.4 Flotation/ Pg. no. 64	Suitable measures to counteract flotation forces	Details for the skin friction coefficient is not mentioned. Please confirm the factor to be used on the coefficient for calculating skin friction with Dwall side/secant pile wall.	Relevant standards/codes shall be followed.
43	43	Volume 6_Drawing_PartA Pg. no. 60	Ground Water Level Data	Bidder understands that ground water level data is provided from year 2006 to 2019. Please confirm whether bidder's understanding is correct.	As per tender condition.
44	44	Volume 3_Employers Requirement 2.1 Scope under Lump Sum Price(Schedule A)/ Pg. no. 19	Design and Construction of underground, elevated ramps and tunnel by Cut & Cover method, in Soil/Rock Strata as shown in the tender drawings. The Girders of Elevated corridors at both end of contract boundary shall rest on abutment wall of elevated ramp. The contractor shall do necessary interface with contractors of elevator corridor.	Please provide the general alignment drawings and general arrangement drawings of girders of elevated corridors resting on the abutment wall. And also provide the loading to be considered for the design of abutment wall.	As per tender condition.
45	45	Volume 3_Employers Requirement 2.1 Scope under Lump Sum Price(Schedule A)/ Pg. no. 21	Providing Overhead Traction Exhaust (OTE) ducts and under platform exhaust.	Please provide SEM details for sizing of Overhead Traction Exhaust (OTE) ducts and under platform exhaust.	As per addendum tender drawings.
46	46	General -	-	Please provide the foundation details of critical structures within the influence zone along the alignment.	As per tender condition.
47	47	Volume 3_Employers Requirement 2.1 Scope under Lump Sum Price(Schedule A)/ Pg. no. 19	The contractor will submit the method statement of tunnelling under existing railway tracks supported by design calculations and instrumentation and monitoring scheme. Work shall be executed in accordance with the approval and terms and conditions laid by the Indian Railways.	Please provide the allowable settlement under Railway Track.	As per Indian Railway requirement.
48	48	Vol_3_EmployersRequirement _KNPCC11 2.1 Scope under Lump Sum Price (Schedule A)/ Pg. no. 24	Scope under Lump Sum Price	Entire scope of work shall be included in the lump sum price (Schedule A of BOQ) except those items which have been included in the Schedule B, C in the item 2.2 of Employer's Requirement (Functional: Part 1 - Civil). Please confirm.	As per tender condition.

Sl. No.	Bidder's S.No.	Reference Volume / Clause	Existing Clause	Queries	UPMRC's Reply
49	49	Vol_6_Drawing_PartB Finishing Schedule/ Pg. no. 6 & 7	Finishing Schedule	Some items as listed in the finishing schedule KNPAGDDC01-TDR-TYP-ARC-SCH-39007 of Vol.6_KNPCC-11, Pg.No.6 to 7, are not reflected in the Architectural Finishing Works BOQ of DSR & Non-DSR items (Vol_7_KNPCC_1, Pg.No.47 to Pg.72 & Pg.No.82 to Pg.90). Please clarify. Items which are not listed in the finishing schedule, same shall be considered as per CPWD standard specifications. Please confirm or advise otherwise.	As per tender condition
50	50	Vol_6_Drawing_PartB Rawatpur Station AutoCAD Drawings/ Pg. no. 8 to 17	Rawatpur Station AutoCAD Drawings	Please share all **AutoCAD drawings for Rawatpur Station as listed in Vol_6_Drawing_PartB:** KNPAGDDC-01-TDR-RWT-ARC-ANC-41259, KNPAGDDC-01-TDR-RWT-ARC-ANC-41260, KNPAGDDC-01-TDR-RWT-ARC-CRS-41255, KNPAGDDC-01-TDR-RWT-ARC-LGS-41256, KNPAGDDC-01-TDR-RWT-ARC-PLN-41250, KNPAGDDC-01-TDR-RWT-ARC-PLN-41251, KNPAGDDC-01-TDR-RWT-ARC-PLN-41252, KNPAGDDC-01-TDR-RWT-ARC-PLN-41253, KNPAGDDC-01-TDR-RWT-ARC-PLN-41254, KNPAGDDC-01-TDR-RWT-ARC-PLN-41258	AutoCad version of all drawing is being provided by email. However, in case of any discrepancy between soft copy and hard copy, hard copy attached with tender will prevail.
51	51	Vol_6_Drawing_PartB Kakadeo Station AutoCAD Drawings/ Pg. no. 18 to 26	Kakadeo Station AutoCAD Drawings	Please share all **AutoCAD drawings for Kakadeo Station as listed in Vol_6_Drawing_PartB:** KNPAGDDC-01-TDR-KKD-ARC-ANC-42507, KNPAGDDC-01-TDR-KKD-ARC-CRS-42505, KNPAGDDC-01-TDR-KKD-ARC-ELE-42508, KNPAGDDC-01-TDR-KKD-ARC-LGS-42506, KNPAGDDC-01-TDR-KKD-ARC-PLN-42500, KNPAGDDC-01-TDR-KKD-ARC-PLN-42501, KNPAGDDC-01-TDR-KKD-ARC-PLN-42502, KNPAGDDC-01-TDR-KKD-ARC-PLN-42503, KNPAGDDC-01-TDR-KKD-ARC-PLN-42504	AutoCad version of all drawing is being provided by email. However, in case of any discrepancy between soft copy and hard copy, hard copy attached with tender will prevail.
52	52	Vol_6_Drawing_PartB Double Pulia Station AutoCAD Drawings/ Pg. no. 27 to 35	Double Pulia Station AutoCAD Drawings	Please share all **AutoCAD drawings for Double Pulia Station as listed in Vol_6_Drawing_PartB:** KNPAGDDC-01-TDR-DPL-ARC-ANC-43007, KNPAGDDC-01-TDR-DPL-ARC-CRS-43005, KNPAGDDC-01-TDR-DPL-ARC-ELE-43008, KNPAGDDC-01-TDR-DPL-ARC-LGS-43006, KNPAGDDC-01-TDR-DPL-ARC-PLN-43000, KNPAGDDC-01-TDR-DPL-ARC-PLN-43001, KNPAGDDC-01-TDR-DPL-ARC-PLN-43002, KNPAGDDC-01-TDR-DPL-ARC-PLN-43003, KNPAGDDC-01-TDR-DPL-ARC-PLN-43004 KNPAGDDC-01-TDR-DPL-ARC-PLN-43004	AutoCad version of all drawing is being provided by email. However, in case of any discrepancy between soft copy and hard copy, hard copy attached with tender will prevail.
53	53	Vol_7_KNPCC_11_BOQ Schedule B_Annexure-B-2/ Pg. no. 47 to 72 Schedule B, Annexure-B-4/ Pg. no. 80 to 81, Schedule B, Annexure-C.1.1/ Pg. no. 82 to 90	Architectural Finishing Works (DSR & Non-DSR Items)	Please share items consideration for the BOQ's listed in Vol_7_KNPCC_11, Pg.No.47 to Pg.72, Schedule B_Annexure-B-2, Architectural Finishing Works (Non-DSR Items), Vol_7_KNPCC_11, Pg.No.80 to Pg.81, Schedule B, Annexure-B-4, Fire Door Works (Non-DSR Items) and Vol_7_KNPCC_11, Pg.No.82 to Pg.90, Schedule B, Annexure-C.1.1, Architectural Finishing Work (DSR Items). Items such as Granite Stone Qty, Metal Works, etc. is listed both in DSR & Non-DSR items. Please share consideration for the same.	Please refer Annexure 17 of Addendum-05.
54	54	General Architecture -	AutoCAD Drawing	Kindly provide us Master plan (AutoCAD Dwg.) including all building layouts, services, utilities, proposed internal road network, proposed landscape areas (landscape scheme), etc.	AutoCad version of all drawing is being provided by email. However, in case of any discrepancy between soft copy and hard copy, hard copy attached with tender will prevail.
55	55	General Architecture -	Doors & Hardware Schedule	Kindly provide us the proposed finishing schedule for Doors, Partitions (Fixed/Movable), Windows, Louvers along with Fire-Rating & Hardware/ Ironmongery schedule.	It is not part of Lump sum shcedule, finishing schedule shall be provided during execution.

Sl. No.	Bidder's S.No.	Reference Volume / Clause	Existing Clause	Queries	UPMRC's Reply
56	56	General Architecture -	Doors & Windows indication in drawings	Kindly share AutoCAD drawings with openings (door/ window openings, etc.) annotations marked in the drawings. Shared PDF drawings doesn't reflect annotations for many doors (snap attached). 	It is not part of Lump sum shcedule, finishing schedule shall be provided during execution.
57	57	General Architecture -	Wayfinding & Signage Schedule	Kindly provide wayfinding & signage drawings & design manual with all sign types, locations & specifications for the same, for all stations in project scope.	Signage work not part of the present tender.
58	58	General Architecture -	Interior Finishes Flooring, Ceiling Internal Walls/ Partitions/ Toilet Cubicles, Skirting/Cladding/Dado Paint & Plaster, etc.	Kindly provide all drawings including Flooring plans, Ceiling Plans, Wall finishes/ partitions, Toilet partitions/ cubicles, etc. for all stations in project scope.	It is not part of Lump sum shcedule, finishing schedule shall be provided during execution.
59	59	General Architecture -	Furniture & Millwork	Please share with us the furniture & millwork specifications schedule which is to be considered for the office areas.	It is not part of Lump sum shcedule, finishing schedule shall be provided during execution.
60	60	General Architecture -	Green Building Approvals (GRIHA, IGBC, LEED, etc.) MRTS Green Building Rating	Kindly specify if any Green Building approval/ certification is required for the proposed structures (e.g. GRIHA, IGBC, LEED etc.)	As tender conditions
61	61	General Architecture -	List of Approvals	Kindly provide us the clarity on pre construction statutory approval status and our scope of work for the same.	As per tender condition.
62	62	General Architecture -	General Topography, Existing Utilities, Tree Layout Plan, etc.	Topography of the land, to assess the quantity and work involved in levelling and to know any existing buildings, trees, drains, water bodies, any underground services etc.	As per tender condition.
63	63	General Architecture -	Railing details	Kindly provide railing mark up in plan and railing detail drawings.	Refer to tender Addendum drawings and tender documents
64	64	General Architecture -	Egress Door Width	As per NBC.Vol.1, 3.1.5 Group D Assembly Buildings, the proposed station structures come under Subdivision D-7. And as per clause No. 4.4.2.4.1-Doorways of NBC Vol.2016, the exit door width shall be not less than 2 000 mm. Doorways shall be not less than 2000 mm in height. However, in the doors schedule shown in drawings (snip attached) many egress doors are indicated with door width less than 2m. Same shall be considered as per NBC. Please confirm.  DOOR SCHEDULE DOOR NO. / WIDTH (IN MM) / LINTEL HEIGHT FROM FFL (IN MM) / FIRE RATING D1 2000 2400 FS-90 D2 1500 2400 FS-90 D3 1500 2100 FS-90 D4 1500 2400 FS-120 D5 1200 2100 FS-90 D6 1200 2100 FS-120	As per addendum tender drawings.

CPM-4/Kanpur. CE/Contracts Chief Architect. CE/Design GM/Finance

Sl. No.	Bidder's S.No.	Reference Volume / Clause	Existing Clause	Queries	UPMRC's Reply
65	65	Vol_6_Drawing_PartD KNPAGDDC01-TDR-TYP-ARC-DET-39003 KNPAGDDC01-TDR-TYP-ARC-SCH-39007	Station Entry Façade	With reference to **Vol.6.Drawing_Part D, Dwg.No.KNPAGDDC01-TDR-TYP-ARC-DET-39003, KNPAGDDC-01-TDR-RWT-ARC-PLN-41258, KNPAGDDC-01-TDR-KKD-ARC-ELE-42508, KNPAGDDC-01-TDR-DPL-ARC-ELE-43008, ACP Cladding & Toughened Glass Cladding** is indicated for Station Entrance Canopy Façade. However, as per finishing schedule **KNPAGDDC01-TDR-TYP-ARC-SCH-39007**, 3 mm thick SS Sheet over S.S. Tubular Structure & Toughened Glass 13.5 mm thk is shown for Station Entrance Canopy facade (snip attached). Please confirm if ACP cladding or SS Sheet to be considered for Entrance Facade. 	Please refer Annexure 16 of Addendum-05.
66	66	Vol_6_Drawing_PartD KNPAGDDC01-TDR-TYP-ARC-DET-39003 KNPAGDDC01-TDR-TYP-ARC-SCH-39007	Station Entry Canopy	With reference to **Vol.6.Drawing_Part D**, **Dwg.No.KNPAGDDC01-TDR-TYP-ARC-DET-39003**, **KNPAGDDC-01-TDR-RWT-ARC-CRS-41255, KNPAGDDC-01-TDR-RWT-ARC-LGS-41256, KNPAGDDC-01-TDR-RWT-ARC-PLN-41258, POLYCARBONATE SHEET ROOFING** is indicated with Skylights at the **Station Entrance Canopy Roof.** However, as per finishing schedule **KNPAGDDC01-TDR-TYP-ARC-SCH-39007**, **SS Sheet** is also indicated for **Roof Canopy (**snip attached). Please share specifications for the **skylights as well.** 	Please refer Annexure 16 of Addendum-05.
67	67	Vol_6_Drawing_PartD KNPAGDDC01-TDR-TYP-ARC-SCH-39007	Toilet Finishes	In the finishing schedule **KNPAGDDC01-TDR-TYP-ARC-SCH-39007**, specifications for certain areas are not mentioned. such as: Toilets, UNA Room, etc. Please confirm for the finishes of the areas for which specifications are not included in the finishing matrix.	It is not part of Lump sum shcedule, finishing schedule shall be provided during execution.

Sl. No.	Bidder's S.No.	Reference Volume / Clause	Existing Clause	Queries	UPMRC's Reply
68	68	Vol_6_Drawing_Part B KNPAGDDC-01-PRD-DP1-STR-DWG-93010	Opening shown in CC Alignment (Sec B-B)	We Request employer to please confirm whether in case of fire this opening can be used as fire exit. 	This can not be used as fire exit. Also refer addendum drawing.
69	69	Vol 3, Employers Requirement Appendix-2B, Page65	**KD 10: (78 Weeks from LOA)** Completion of Civil work of ASS room for first two stations and handing over to start E&M work . **KD 11: (79 Weeks from LOA)** Completion of Civil work of ASS room for remaining stations and handing over to start E&M work.	Key Dates KD 10 & KD 11 are very stringent. We tried several options of Sequencing of works including TBM Launching and Retrievals. However, in all options, the intermediate key date KD11 fails for remaining station. Completion of Civil Works for ASS rooms for first two stations is 78 weeks and Completion of ASS Rooms for remaining stations is 79 weeks. Only 1 week time is available in between these two key dates and therefore the intermediate key dates are not in sync particulary because the civil works of rooms are also dependent on TBM Retrievals, as these rooms are located at shaft location. At Rawatpur station, ASS room is located at 2nd Floor of Ancillary building which is placed above Station roof. Hence we request employer to extend the intermediate KD 11 by atleast 20 weeks keeping overall completion date intact. Date for this intermediate Key date may kindly be made atleast 99 weeks.	Please refer Annexure 09 of Addendum-05.
70	70	Vol 3, Employers Requirement Appendix-2B, Page66	**KD 12: (80 Weeks from LOA)** Completion of Civil work of Ancillary buildings including its service galleries connecting to stations, Under-croft, Cable duct, cable and other service gallery at all stations and Handing-over to start E&M/ECS-TVS work including Cable/ Pipe laying work.	Ancillary Building is located on top of station roof of at Rawatpur station. The KD12 may please be made 96 weeks, as the ancillary building is located on 2nd floor above ground level. Alternatively, the Anicillary building of Rawatput stations can be located away from station on ground, in which case KD12 may be made 92 weeks.	Please refer Annexure 09 of Addendum-05.
71	71	Vol 3, Employers Requirement Appendix-2B, Page66	**KD 14: (82 Weeks from LOA)**Completion of Civil work of 1st TVF room at all stations and Handing -over to start TVS work including Cable/ Pipe laying work. **KD 17: (85 Weeks from LOA) :** Completion of civil work of 2nd TVF room at all stations and Handing -over to start TVS work including Cable/ Pipe laying work.	Key Dates KD 14 & KD 17 are very stringent & hardly 3 weeks' time is available in between Completion TVF room for first two stations & completing remaining balance Remanining TVF rooms for all stations. All TVF Rooms are placed over /adjoining shaft location and the completion of Civil works of Rooms is dependednt on closure of Openings in slabs. Completion of closure of openings is again dependent on TBM Launching and Reitrieval activities. We have worked out several work sequences and observed that the KD17 gets delayed for at least 1 no. station by any sequence adopted for TBM Launching and Retrieval. Hence we request the Employer to kindly extend intermediate KD 17 by atleast 16 weeks keeping overall completion date intact	Please refer Annexure 09 of Addendum-05.

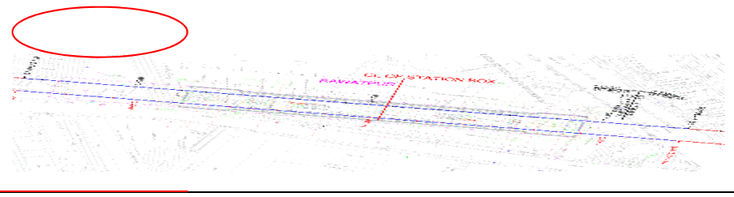
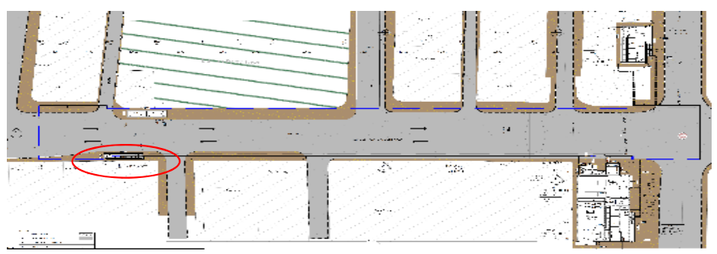
Sl. No.	Bidder's S.No.	Reference Volume / Clause	Existing Clause	Queries	UPMRC's Reply
72	72	Vol 3, Employers Requirement Appendix-2B, Page66	**KD 13: (81 Weeks from LOA)** :Completion of Civil work of ECS room at first two stations and Handing -over to start TVS work including Cable/ Pipe laying work **KD 16: (85 Weeks from LOA) :**Completion of Civil w ork of balance ECS rooms at all stations and Handing -over to start ECS work including Cable/ Pipe laying work.	Key Dates KD 13 & KD 16 are very stringent & hardly 3 week stime is available in between Completion rooms for first two stations & completing remaining balance Remanining rooms for all stations. Hence we request employer to extend intermediate KD 16 by atleast 16 weeks keeping overall completion date intact. Hence KD 16 should be made 91 weeks	As per tender conditions.
73	73	Vol 3, Employers Requirement Appendix-2B, Page66	**KD 19: (90 Weeks from LOA) :**Completion of Civil work of TER, SCR, SER, UPS, GSM, CDMA and all other operational rooms at all stations and Handing -over as per the level of finish required by System Contractors .	Some SER, TER Rooms are located in Ancillary Building which are placed above Station roof at Rawatpur station. Hence we request employer to extend intermediate KD 19 by atleast 8 weeks keeping overall completion date intact	As per tender conditions.
Bidder 2					
74	1	General Technical Query	AutoCAD drawings	Kindly provide - AutoCAD Drawings for alignment & lay-out for proper study, simulation and estimate.	AutoCad version of all drawing is being provided by email. However, in case of any discrepancy between soft copy and hard copy, hard copy attached with tender will prevail.
75	2	General Technical Query		Will there be any Structural Proof checker from employer side. If yes What will be the Design review Process.	Yes, General Consultant will be Structural Proof checker from employer side.
76	3	General Technical Query		Kindly Provide Tunnel, Ramp and C&C Cross section showing the 3rd rail for clarity of Clearances.	Please refer Annexure 16 of Addendum-05.
77	4	Vol. 1, Page 11 (Vol_1_NIT_ITT_FOT_KNPCC11)	1.1.6 - Key Staff	Key Position Education NOT Specified .Pl provide whether it shall be Degree or Diploma	Please refer Annexure 2 of Addendum-05.
78	5	Volume–1/NIT/Page no. 4	1.1.2 KEY DETAILS Date & Time Submission of tender - 05.04.2023 (15:00 hrs)	Kindly requested to extend the bid submission date by one (01) month from 5th April 22	Please refer Addendum 4 uploaded on CPP Portal.
79	6	Vol 1 ITT/1.1.2 Key Detail/Tender Security Amount/ Point (ii)/page 4	The instrument type for payment of tender security/ EMD shall be Demand Draft, Bank Guarantee, Insurance Surety Bond, RTGS, NEFT & IMPS. No other mode of payment will be accepted.	After Account details in Point (ii) it states doesn't include Payment of Tender Security as Insurance Surety Bond. Please Clarity if we can submit Tender security in the form of Insurance Surety Bond.	Please refer Annexure 5 of Addendum-05.
80	7	Vol 1/ Form of Tender-Appendix 1/S. No. (vii)	Clause 4.2 of the GCC and SCC	Amount of Performance security is 3% as per Vol1 ITT/Award of contract F5(page no. 53) but Performance Guarantee mentioned 5% of Contact Value in Amount of Professional Indemnity Insurance Pont (vii).	As per tender conditions.
81	8	VOLUME 1/ NOTICE INVITING TENDER, Page 7, 1.1.4.2 Minimum Eligibility Criteria	"Similar Work/s" for this contract shall be" Tunnelling work in urban environment which shall include minimum of 2.50 km of Tunnel length by Shield TBM (in case of twin tunnel each tunnel shall be counted as a separate Tunnel for calculation of length of tunnel) with finished internal dia of more than 5.0 mtr, along with or without underground station using cut & cover method which may include architectural finishing.	Please confirm whether 2.50 km of tunnel length by Shield TBM can be met by multiple contracts with accumulative works.	As per tender conditions.
82	9	VOLUME 1, NOTICE INVITING TENDER, Page 9, (iv) T4 - Annual Turnover	T4 - Annual Turnover: The average annual financial turnover of the bidder during the last three years ending 31st March of the previous Financial Years should be at least Rs.307.50 Crores. Note: Financial data for latest last five audited financial years has to be submitted by the tenderer in Annexure-2 of NIT along with audited balance sheets.	In term of Annual Turnover in T4, the average financial turnover will be considered in the last 3 years. However, in "Note" the bidders balance sheets of five years shall be submitted. Please confirm the aforesaid tender conditions.	As per tender conditions.

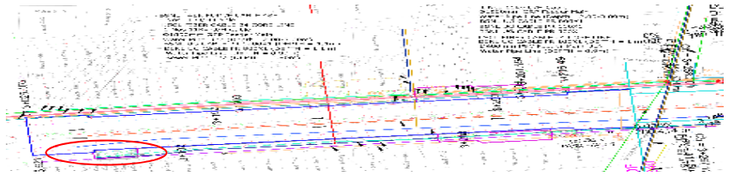
Sl. No.	Bidder's S.No.	Reference Volume / Clause	Existing Clause	Queries	UPMRC's Reply
83	10	Vol 2 GCC/Clause 2.2 Access to and Possession of the Site/Page 12	*Last Para* For any such delay in handing over of site, Contractors will be entitled to only reasonable extension of time and no monetary claims whatsoever shall be paid or entertained on this account.	Delay in handing over possession of site may inevitably lead to idling of Contractor's resources leading to incurred costs. Suggest to allow for substantiated monetary claims for such costs.	As per tender conditions.
84	11	Vol 2 GCC/Clause 4.11 Access Route/page 23	The Employer will not be responsible for any claims which may arise from the use or otherwise of any access route. The Employer does not guarantee the suitability or availability of any particular access route, and will not entertain any claim for any non-suitability or nonavailability for continuous use during the construction of any such route.	Bidder's request to amend: The Contractor should be entitled to delay and incurred Cost if non-suitability or non-availability of an access route arises **as a result of changes to that access route by the Employer, the Employer's Personnel, or any of their respective agent (s). and any third party.**	As per tender conditions.
85	12	Vol 2 GCC/Clause 8.3 Delay/Page 46	Failure or delay by the Employer or the Engineer, to hand over to the Contractor the Site necessary for execution of Works, or any part of the Works, or to give necessary notice to commence the Works, or to provide necessary Drawings or instructions or clarifications or to supply any material, plant or machinery, which under the Contract, is the responsibility of the Employer, shall in no way affect or vitiate the Contract or alter the character thereof; or entitle the Contractor to damages or compensation thereof but in any such case, the Engineer shall extend the time period for the completion of the Contract, as in his opinion is / are reasonable.	Under standard contract conditions, any delays, disruptions, actions and inactions attributed to the Employer/Engineer should entitle the Contractor to be compensated with time and cost. Kindly rephrase Clause 8.3 to include entitlement of Contractor to damages and compensation.	As per tender conditions.
86	13	Vol 2 GCC/Extension of Time Clause 8.4.1/Page 47	Contractor shall not be entitled to any extension of time where the instructions or acts of the Employer or the Engineer are necessitated by or intended to cure any default of or breach of Contract by the Contractor or where any delay is due to c. inclement weather conditions,	The Contractor should be entitled to an EOT as well as financial losses/damages as a result of adverse climatic conditions/ inclement weather conditions not affecting the Site only **but also where adverse weather elsewhere delayed delivery of key items of plant or materials.**	As per tender conditions.
87	14	Vol 2 GCC/Clause 8.8 Consequences of Suspension/Page 48	The Contractor shall not be entitled to extra cost (if any), incurred by him, during the period of suspension of Work., if such suspension is **b)** necessary for proper execution of Works or **by reasons of weather condition** or by some default on the part of the Contractor, or **f)** due to instructions of NGT/EPCA or any other statutory authority on account of high pollution.	The Contractor should be entitled to idling costs due to **adverse weather conditions or inclement weather conditions (at site and/or elsewhere affecting the Contractor's performance under the Contract)**, and Suspension due to NGT/EPCA or any other statutory authority's instruction due to high pollution. Both of the aforementioned conditions are beyond the Contractor's control, and the Contractor should be compensated for the incurred costs as well as EOT. Kindly amend this Clause.	As per tender conditions.
88	15	Vol 2 GCC/Clause 11.2.4 Recovery of Advances/Page 54	**(d) In case the Contract is terminated due to default of the contractor or rescinded/foreclosed due to any other reason,** the contractor shall return the unrecovered amount of all advances within 15 days of issue of notice of termination/rescission/ fore closer of the contract and if the contractor fails to do so due to any reason whatsoever, then interest at an interest rate equal to State Bank of India prime lending rate plus 2% per annum or 10% per annum whichever is higher shall be charged on the unrecovered amount of such advances from 16th day onwards till the same is returned by the contractor.	**Request for rewording as follows:** **In case the Contract is terminated or rescinded / foreclosed due to default of the Contractor**, the Contractor shall return the unrecovered amount of all advances within 15 days of Issue of notice of termination / rescission / foreclosure of the contract and if the Contractor fails to do so due to any reason whatsoever, then interest at an interest rate equal to State Bank of India prime lending rate plus 2% per annum or 10% per annum whichever is higher shall be charged on the unrecovered amount of such advances from 16th day onwards till the same is returned by the contractor.	As per tender conditions.

Sl. No.	Bidder's S.No.	Reference Volume / Clause	Existing Clause	Queries	UPMRC's Reply
89	16	Vol 2 GCC/Clause 12 Variation/Page 61	-	Bidder's request to include the Provision of "Value Engineering" and net saving share to the contractor for the Value Engineering proposed by the contractor.	As per tender conditions.
90	17	Vol 2 SCC/Sub Clause 10.0 Defect liability period/Page 100	Defect liability period shall be **104 Weeks (24 months)** from the date of issue of taking over certificate.	Bidder's request to replace with the following' "The defect liability period shall be **52 Weeks (12 months)** from the date of the issue of taking over the certificate."	As per tender conditions.
91	18	Vol 2 SCC/Clause 11.1.3 (v) Adjustment in Contract Price/Page 100/105	**Change in Taxes/Duty** Refer: Clause 11.1.4 of GCC a) "Change in Taxes/Duties/Levies" means the occurrence or coming into force of the following, at any time after the date of submission of tender. (i) Any new tax which is imposed on Composite Works Contracts applicable on Metro Project.	Bidder's request to add a new Provision i.e." **Adjustments for Changes in Legislation"** Risk of unexpected change in legal or regulatory frame work which is not foreseeable by the parties at the time of bidding shall affect the Contractor's performance of obligations under the Contract and impact the operating cost of the Project. In such case the Contractor should be entitled to claim for EOT and additional reimbursement in respect of or as a result of Changes in Legislation.	As per tender conditions.
92	19	Vol 2 SCC/Clause 8.5 Liquidated Damages for Delay/Page 99	Liquidated damages as per the rates given in the Appendix 2B shall be levied for any delay in completing these areas as per these key dates including an overall completion of the work. The maximum limit of liquidated damages on key dates shall be limited to **10%** of the lump sum price quoted in Schedule 'A' of BOQ. However, this limit of liquidated damage shall be 15% of the lump sum price after including any sums accepted by employer for payment to any designated contractor on account of default of contractor.	Bidder's request to include the following; "All levied Delay Damages (LD), if applicable, will be reimbursed by the Employer to the Contractor if the Contractor achieves subsequent milestones key dates and/or project completion date. If the delay in key dates is pertaining to interface due to reasons not attributable to the contractor then NO LD shall be imposed by the Employer to the Contractor (Bidder), if have already been imposed then it shall be refunded by the Employer to the Contractor.." Bidder also requests that maximum amount of liquidated damages be reduced to 5% of the lumpsum Contract Price. Bidder also requests that maximum amount of liquidated damages be reduced to 5% of the lumpsum Contract Price	As per tender conditions.
93	20	Vol 2 GCC/Clause 17.9 Arbitration/Page 79	Subclause 17.9.2 (i) ".....the Employer will forward a panel of 03 names to the Contractor. The Contractor shall have to choose one Arbitrator from the panel of three, to be appointed as Sole Arbitrator....." Subclause 17.9.2 (ii) ".....the Employer will forward a panel of 5 names to the Contractor. The Contractor will then give his consent for any one name out of the panel to be appointed as one of the Arbitrators ...."	In both instances, having to limit Contractor's choice of selecting an arbitrator from Employer's panel defeats the impartiality of the dispute resolution process. Contractor should be given the opportunity to recommend arbitrators for amicable consent by both parties in the case of sole arbitrator and select an arbitrator from Conractor's own panel/resources in the event of 3 arbitrators.	As per tender conditions.
94	21	Volume-2_GCC_SCC / Page No. 100	SCC / 11.1.3 - Adjust in Contract Price	The price variation will be payable only on the Indian currency component (no adjustment for Foreign currency component) of the Contract Price as per the follow price variation formula. **The price variation should be payable on Foreign currency component as well**	As per tender conditions.
95	22	Volume-2_GCC_SCC / Page No. 102	SCC / 11.1.3 - Adjust in Contract Price	The Price variation should be payable on Fixed component i.e.15% of gross value of work done	As per tender conditions.
96	23	Vol 2 SCC/Clause 9/page 87	Clause 4.2.1 of GCC	Performance Bank Guarantee can be submitted in the form of Insurance Surety Bond but Format not available.	Insurance Surety Bond may be submitted as per the guidelines of IRDA and acceptable to UPMRC.
97	24	Vol 2 SCC/Clause 11.1.1/page 100	Sub Clause 11.1.1 (i) of GCC	Please clarify that GST will be paid on the total contract price at the prevailing rate prescribed for this service on submission of specified documents.	As per tender conditions.
98	25	Vol 2 SCC/Clause 27/point(v) Change in Tax/Duty (b)(c)/page 105	Clause 11.1.3 (v) (c)- the Contract price shall not be adjusted on account of fluctuations in the rates of exchange between the foreign currencies of the Contract and Indian Rupees from the last date of submission of tender.	Please clarify this clause. If the contract price is in foreign currency then any change in exchange rate will not change the foreign currency contract value.	As per tender conditions.
99	26	Vol 2 SCC/Clause 11.2.2/page 107	Advance Against Plant & Machinery	Bank Guarantee against Plant & Machinery advance as well as cost of Hypothetication are asked to submit. Request to accept one of the two.	As per tender conditions.

<table>
<tr><th>Sl. No.</th><th>Bidder's S.No.</th><th>Reference Volume / Clause</th><th>Existing Clause</th><th>Queries</th><th>UPMRC's Reply</th></tr>
<tr><td>100</td><td>27</td><td>Vol 2 GCC/Clause 15.2/page 72</td><td>Insurance for Works and Contractor’s Equipment</td><td>Deductible for Contractor's works policy not specified in tender documents. provide the same</td><td>As per tender conditions.</td></tr>
<tr><td>101</td><td>28</td><td>Volume–3/Employer's Requirements/Appendices/Page no. 64</td><td>Appendix 2A - Work Areas</td><td>Kindly confirm if the land is available with UPMRCL and provide the land handover schedule.</td><td>As per tender conditions.</td></tr>
<tr><td>102</td><td>29</td><td>Volume–3/ Employer's Requirements/Section-D/Construction/Page no. 47</td><td>Trees</td><td>Kindly confirm if the relevant tree cutting permission is available with UPMRCL as there are many trees falling in the alignment mostly at Elevated Ramp, UG Ramp, Cut & Cover at the start and end of project, Rawatpur, Kakadeo and Double Pulia Station so that the same can be considered in program accordingly.</td><td>As per tender conditions.</td></tr>
<tr><td>103</td><td>30</td><td>Volume–3/ Employer's Requirements/ Section–B/Functional/Page no. 19</td><td>2.1 Scope under Lump Sum Price (Schedule A):Point 2</td><td>Kindly confirm if the relevant permission from the Indian Railway is available with UPMRCL as tunnel alignment is crossing below the railway lines.</td><td>As per tender conditions.</td></tr>
<tr><td>104</td><td>31</td><td>Volume–3/Employer's Requirements/Appendices/Page no. 65-67</td><td>APPENDIX 2B/CONTRACT KEY DATES AND COMPLETION DATE</td><td>Kindly consider the stretch between Rawatpur and Cut & Cover as KD-08 as the same can be used for rail lowering as well due to availability of space.</td><td>Please refer Annexure 9 of Addendum-05.</td></tr>
<tr><td>105</td><td>32</td><td>Volume–3/Employer's Requirements/Appendices/Page no. 65-67</td><td>APPENDIX 2B/CONTRACT KEY DATES AND COMPLETION DATE</td><td>Kindly requested to revise the following Key Dates: -
<table>
<tr><th>Sr. No.</th><th>Key Date</th><th>Description</th><th>Weeks from LOA</th><th>Requested Extension (Weeks)</th><th>Reasons</th></tr>
<tr><td>1</td><td>KD 10</td><td>Completion of Civil work of ASS room for first two stations and handing over to start E&M work.</td><td>78</td><td rowspan="2">26</td><td rowspan="2">All these rooms are falling at shaft location and it is clearly mentioned in tender that the shafts are located inside station. Hence, the rooms may be impacted.</td></tr>
<tr><td>2</td><td>KD 11</td><td>Completion of Civil work of ASS room for remaining stations and handing over to start E&M work.</td><td>79</td></tr>
<tr><td>3</td><td>KD 12</td><td>Completion of Civil work of Ancillary buildings including its service galleries connecting to stations, Under-croft, Cable duct, cable and other service gallery at all stations and Handing-over to start E&M/ECS-TVS work including Cable/ Pipe laying work.</td><td>80</td><td>13</td><td>At Rawatpur station, the ancillary building is directly above the shaft.</td></tr>
<tr><td>4</td><td>KD 13</td><td>Completion of Civil work of ECS room at first two stations and Handing-over to start TVS work including Cable/ Pipe laying work.</td><td>81</td><td rowspan="4">23</td><td rowspan="4">All these rooms are falling at shaft location and it is clearly mentioned in tender that the shafts are located inside station. Hence, the rooms may be impacted.</td></tr>
<tr><td>5</td><td>KD 14</td><td>Completion of Civil work of 1st TVF room at all stations and Handing-over to start TVS work including Cable/ Pipe laying work.</td><td>81</td></tr>
<tr><td>6</td><td>KD 16</td><td>Completion of Civil work of balance ECS rooms at all stations and Handing-over to start ECS work including Cable/ Pipe laying work.</td><td>85</td></tr>
<tr><td>7</td><td>KD 17</td><td>Completion of civil work of 2nd TVF room at all stations and Handing-over to start TVS work including Cable/ Pipe laying work.</td><td>85</td></tr>
<tr><td>8</td><td>KD 19</td><td>Completion of Civil work of TER, SCR, SER, UPS, GSM, CDMA and all other operational rooms at all stations and Handing-over as per the level of finish required by System Contractors.</td><td>90</td><td>14</td><td></td></tr>
</table></td><td>Please refer Annexure 9 of Addendum-05.</td></tr>
<tr><td>106</td><td>33</td><td>Volume–3/Employer's Requirements/Appendices/Page no. 65-67</td><td>APPENDIX 2B/CONTRACT KEY DATES AND COMPLETION DATE</td><td>The project duration i.e. 30 months is very less for an underground project with 03 stations. Kindly requested to increase the project duration to 36 months.</td><td>As per tender conditions.</td></tr>
<tr><td>107</td><td>34</td><td>Vol_3_Employers Requirement Appendix 2B</td><td>Key Date 21</td><td>As part of our bid, we have carefully considered the key dates and requirements for the completion of the 4656m tunnel.
Considering the the complexity and nature of the work involved, as well as the use of two TBM's. Based on our analysis, we earnestly request that you consider amending the reasonable time of completion for KD21 to 107 weeks. This will allow us to complete the project within the required timeframe while ensuring high-quality workmanship.</td><td>Please refer Annexure 9 of Addendum-05.</td></tr>
<tr><td>108</td><td>35</td><td>Vol_3_Employers Requirement Appendix 2B</td><td>Key Date 21
Completion of Track way Basic Structure for designated contractors access - Track way including construction of cross passages, 1st stage track bed concrete including drainage for 1st block section between 1st pair of stations (both up and down line)</td><td>Bidder request to change description to "Completion of Track way Basic Structure for designated contractors access - Track way including construction of cross passages, 1st stage track bed concrete including drainage for 1st block section between 1st pair of stations/ cut & cover ramp (both up and down line)"</td><td>Please refer Annexure 9 of Addendum-05.</td></tr>
</table>

Sl. No.	Bidder's S.No.	Reference Volume / Clause	Existing Clause	Queries	UPMRC's Reply
109	36	Vol_3_Employers Requirement Appendix 2B	Key Date	Bidder estimates, considering linear nature of the work, utilities, and habitations at Kakadeo Station. We propose that the TBM shall Drag-through/ Drive Through lag as required, and the station will be developed accordingly. We kindly request that you review our proposal and amending the reasonable time of completion of station key dates.	As per tender conditions & also refer Annexure 9 of Addendum-05.
110	37	Volume–3/ Employer's Requirements/ Section–B/Functional	The contractor will submit the method statement of tunnelling under existing railway tracks supported by design calculations and instrumentation and monitoring scheme.Work shall be executed in accordance with the approval and terms and conditions laid by the Indian Railways".	Pl.confirm that Permission from Railway for crossing below track is taken by employer.	As per tender conditions.
111	38	Volume–3/ Employer's Requirements/Section-D/Construction-Page 41	2. CHECKING OF THE CONTRACTOR'S TEMPORARY WORKS DESIGN The Contractor shall, prior to commencing the construction of the Temporary Works,submit a certificate to the Engineer signed by him certifying that the Temporary Works have been properly and safely designed and checked and that the Contractor has checked the effect of the Temporary Works on the Permanent Works and has found this to be satisfactory.	Temporary works will not be reviewed by Employer/Proof Checker of employer. Kindly clarify	As per tender conditions.
112	39	Volume–3/ Employer's Requirements/scope of Works,	Scope of Works, Clause 2.3 (iv)	Occupancy type , floor loading of PEB requirement to be clarified.Also the design code for PEB structural design	As per tender conditions.
113	40	Vol-4_OUTLINE DESIGN SPECIFICATIONS	2.10.4 Structure Condition Survey	Please provide Building Condition Survey Reports	As per tender conditions.
114	41	Vol-4_OUTLINE DESIGN SPECIFICATIONS	2.9.8 GENERAL	We requet to provide Instrumentation and Monitoring Detailed plan drawings	As per tender conditions.
115	42	ODS, Volume 4, Section 2	Geotechnical, foundations, and tunnel works.Section 2.1.2	Hierachy of design codes to be followed for the project to be clarified.	As per tender conditions.
116	43	Vol 4/OCS 5.2.10 Curing and Protection	1 Curing and Protection (iii) After 7 days the hessian and polythene shall be removed and an approved approved curing compound applied unless alternative method is agreed to by Engineer or provided for in Contract. The rate of application shall be as recommended by the manufacturer.	Requirements of curing compound after 7 days of curing shall be amended.	As per tender conditions.
117	44	Vol 4/OCS 5.2.10 Curing and Protection	(b) Vertical surfaces. Approved Curing compounds shall be used.	Water curing may also be adopted as per site condition	As per tender conditions.
118	45	Vol_6_Drawings_PartA	UPMRC/KNPDD-01/KNPCC-11/GAD/SHEET 05 of 07 ; UPMRC/KNPDD-01/KNPCC-11/GAD/SHEET 06 of 07 ;	The topography here shows only around 13.5 higher than the rail level, which is not matching with the station cross section.	As per tender conditions.
119	46	Vol_6_Drawings_PartA	KNPDD-01-TDR-KNPCC-11/work area/DPL/04 ;	It mentions that the T-2 land is for TBM launching purpose, is it compulsory or optional?	Please refer Annexure 16 of Addendum-05.
120	47	Vol_6_Drawings_PartA-Alignment	General Alignment Drawing	We request to provide General Alignment Auto-CAD drawing	AutoCad version of all drawing is being provided by email. However, in case of any discrepancy between soft copy and hard copy, hard copy attached with tender will prevail.

Sl. No.	Bidder's S.No.	Reference Volume / Clause	Existing Clause	Queries	UPMRC's Reply
121	48	Volume - 6/Drawings/Part A Volume - 6/Drawings/Part B Volume - 6/Drawings/Part C Volume - 6/Drawings/Part D		Kindly share the soft copy (CAD file) of all the drawings.	AutoCad version of all drawing is being provided by email. However, in case of any discrepancy between soft copy and hard copy, hard copy attached with tender will prevail.
122	49	Volume - 6/Drawings/Part A	General Alignment Drawing (Sheets 1 to 7)	It is mentioned that "Station location is only tentative". Kindly confirm whether the station location is subject to change in future.	Please refer Annexure 16 of Addendum-05.
123	50	Volume - 6/Drawings/Part A	UPMRC/KNPDD-01/KNPCC-11/GAD/SHEET 03 of 07	An Additional area is marked with pink colour beyond grid 12 at Rawatpur station. Kindly confirm whether this land is part of permanent land or temporary land. 	Please refer Annexure 16 of Addendum-05.
124	51	Volume - 6/Drawings/Part A	KNPDD-01-TDR-KNPCC-11/WORK AREA/RWT-02	It is observed in the drawing that permanent land provided is colliding with the existing buildings at Rawatpur station. Kindly confirm whether relevant building demolition permission is available with UPMRCL.Also clarify demolition is in whoise scope	Please refer Annexure 16 of Addendum-05.
125	52	Volume - 6/Drawings/Part A	KNPDD-01-TDR-KNPCC-11/UTILITY/SHEET-01	Drain is touching the ancillary building corner at Rawatpur station. Kindly confirm whether ROW & PWD land is available with UPMRCL to divert the same	As per tender conditions.
126	53	Volume - 6/Drawings/Part D	KNPAGDDC-01-TDR-RWT-ARC-LGS-41256	No columns are shown between grid 8 to 9 at PD 3 location of Rawatpur station. Kindly confirm.	Please refer Annexure 16 of Addendum-05.
127	54	Volume - 6/Drawings/Part D	UPMRC/KNPDD-01/KNPCC-11/GAD/SHEET 03 of 07 UPMRC/KNPDD-01/KNPCC-11/GAD/SHEET 04 of 07 UPMRC/KNPDD-01/KNPCC-11/GAD/SHEET 06 of 07	Nearby buildings and utilities are colliding with permanent land at many locations. Kindly provide soft copy (CAD files) of the drawings so that the exact distance between the buidings & permanent land can be verified.	AutoCad version of all drawing is being provided by email. However, in case of any discrepancy between soft copy and hard copy, hard copy attached with tender will prevail.
128	55	Volume - 6/Drawings/Part A		Utilities details of sewer pipeline, dark nallah, uncategorised cables are not provided. Kindly provide the same.	As per tender conditions.
129	56	Volume - 6/Drawings/Part D	KNPAGDDC-01-TDR-KKD-ARC-PLN-42501	It is observed that TVS shaft between grid 3 to 4 at Kakadeo Station is falling over station edge. It is requested to kindly shift the same inside station. 	As per tender conditions.

Sl. No.	Bidder's S.No.	Reference Volume / Clause	Existing Clause	Queries	UPMRC's Reply
130	57	Volume - 6/Drawings/Part A	KNPDD-01-TDR-KNPCC-11/UTILITY/SHEET-02	Drain is falling over the PROPOSED SPACE FOR TVS SHAFT & SVS,EVS SHAFT between grid 3 to 4 at Double Pulia station. Kindly Confirm whether the ROW is available with UPMRCL and is under permanent structure. 	As per tender conditions.
131	58	Volume - 6/Drawings/Part D		Cross Section not shown at Entry/Exits and Ancillary building location at Kakadeo station. Kindly provide the same.	Please refer Annexure 16 of Addendum-05.
132	59	Volume - 6/Drawings/Part A	UPMRC/KNPDD-01/KNPCC-11/GAD/SHEET 04 of 07	It is observed that Kakadeo station corner is falling on Deoki Chowk where the traffic congestion is high and Nagar Nigam Dark Nallah is crossing the station. Kindly confirm if we can shift Kakadeo station towards Double Pullia to avoid the Chowk so that traffic can move swiftly and dark nallah can be avoided.	As Per Tender conditions.
133	60	Volume - 6/Drawings/Part A Volume - 6/Drawings/Part D	UPMRC/KNPDD-01/KNPCC-11/GAD/SHEET 06 of 07 KNPDD-01-TDR-KNPCC-11/WORK AREA/DPL/04 KNPDD-01-TDR-KNPCC-11/UTILITY/SHEET-03	It is observed that the location of Double Pulia station is not matching in GAD, Work Area and Utility drawings. Kindly Confirm the exact location of Double Pulia station.	Please refer Annexure 16 of Addendum-05.
134	61	Volume - 6/Drawings/Part A	UPMRC/KNPDD-01/KNPCC-11/GAD/SHEET 06 of 07	Kindly requested to shift Double Pulia station towards the end of project as there is a temple adjacent to grid 01 due to which there is space constraint.	Please refer Annexure 16 of Addendum-05.
135	62	Volume - 6/Drawings/Part A	KNPDD-01-TDR-KNPCC-11/UTILITY/SHEET-02 KNPDD-01-TDR-KNPCC-11/UTILITY/SHEET-03 KNPDD-01-TDR-KNPCC-11/UTILITY/SHEET-04 KNPDD-01-TDR-KNPCC-11/UTILITY/SHEET-05	It is seen that many utilities are present in Kakadeo, Double Pulia, Cut & Cover, ramp (UG & Elevated) towards end of project. Kindly confirm whether ROW is available with UPMRCL as these utilities need to be diverted/supported before commencing the actual work.	As Per Tender conditions.
136	63	Vol_6_Drawings_PartA	UPMRC-DESIGN-UG-ST-120	Toe level of Elevation Corridor Piles are not mentioned. Kindly provide the toe level of an each pile.	Please refer Annexure 16 of Addendum-05.
137	64	Volume 08/5.3/11	Hierarchy of Risk / Impact Control	HIRA Matrix not defined/described (either 4*4 OR 5*5)	The contractor will prepare the Project Safety Plan incorporatiing all these requirements and will have to get the same approved by the Engineer.
138	65	Volume 08 / 7.8 / 17	Minutes of Meeting	MOM Format not defined / described in Appendix	As per the Engineers requirement.
139	66	Volume 08/ 9.2 (vi)/ 18	SHE Training Matrix	Training Matrix not defined/described (for Staff & Workmen)	The contractor will prepare the Project Safety Plan incorporatiing all these requirements and will have to get the same approved by the Engineer.
140	67	Volume 08/ 14.0/ 31	Accident Reporting & Investigation	Accident Investigation Format not defined/described in Appendix.	The contractor will prepare the Project Safety Plan incorporatiing all these requirements and will have to get the same approved by the Engineer.
141	68	Volume 08/ 36.9.4.1/74	Height of barricades	Dimensions (Height & Width) of barricades not defined	Please refer Annexure 16 of Addendum-05.
142	69	Volume 08 / 43.3/ 86	Occupational Noise	Noise Permissible Limits value not defined/described in Appendix	As per Government and relevant contract provisions.
143	70	Vol-9 Geotechnical Investigation	Geotechnical Investigation	only 8 nos. of Borehole data are available .We request to Provide the Geotechnical Borehole Location (X,Y coordinates) of those Borehole . kinldy provide the Existing underground ongoing project GIR report for our reference .	As Per Tender conditions
Bidder 3					

Sl. No.	Bidder's S.No.	Reference Volume / Clause	Existing Clause	Queries	UPMRC's Reply
144	1	Clause 2.2 ,GCC & SCC	The Employer shall grant the Contractor right of access to, and / or possession of, the Site progressively for the completion of Works. Site access schedule will be consistent with the resettlement plan for the section.	Please specify the timelines within which the site shall be handed over. Apart from this also provide resettlement plan.	As Per Tender conditions
145	2	Employer's Requirements/ Section–B/Functional – clause 1 (4), Page 18	The Contractor shall be responsible for obtaining all necessary approvals from the relevant Public/Government/Local/Statutory or any agencies in the design and construction of the works.	UPMRCL being the government Authority are in better position to take approval of from Public/Government/Local/Statutory or any agencies. Bidder request Employer to obtain all necessary approvals from the relevant Public/Government/Local/Statutory or any agencies for effective progress of work and avoid delays.	As Per Tender conditions
146	3	Clause 8.5(i) of SCC ,Page 99,	As various designated contractors have to start working in parallel to ongoing work, contractor has to complete and handover areas and plant rooms as per the key dates stipulated in Appendix 2B of Employers Requirement before the final completion date of the contract. Liquidated damages as per the rates given in the Appendix 2B shall be levied for any delay in completing these areas as per these key dates including an overall completion of the work. ii) The maximum limit of liquidated damages on key dates shall be limited to 10% of the lump sum price quoted in Schedule 'A' of BOQ. However, this limit of liquidated damage shall be 15% of the lump sum price after including any sums accepted by employer for payment to any designated contractor on account of default of contractor.	Bidder request the Employer to reimburse the LD levied towards a key date if the subsequent key date/completion of works is achieved timely.	As Per Tender conditions
147	4	Clause 11.1.3 (iii) of SCC, Page 104	The price variation shall be applicable only beyond 2 percentage of variation of the contract price i.e. where the resultant increase is lower than two per cent of the contract price, no price adjustment will be made in favour of the contractor. However, in case the resultant increase is more than 2 percent of the contract price, then full price variation shall be payable.	Bidder request Employer to delete this provision.	As per tender conditions.
148	5	Clause 11.1.3 (iii) of SCC, Page 104	The price variation shall be limited to 25 per cent of contract value (including variations in BOQ items).	Limiting the price variation will lead to the speculative bidding and Employer may not receive lowest competitive offer. Bidder request Employer to delete this provision	As per tender conditions.
149	6	Clause 11.1.3 (v) of SCC, Page 105	(v) Change in Taxes/Duty Refer: Clause 11.1.4 of GCC a) "Change in Taxes/Duties/Levies" means the occurrence or coming into force of the following, at any time after the date of submission of tender. (i) Any new tax which is imposed on Composite Works Contracts applicable on Metro Project.	Request you to provide for adjustment in Contract Price on account of change in rate of existing taxes and introduction of new taxes.	As per tender conditions.

Sl. No.	Bidder's S.No.	Reference Volume / Clause	Existing Clause	Queries	UPMRC's Reply
150	7	Clause 11.2.1 of SCC, Page 106 & Clause 11.2.4(a) of GCC , Page 54	- Recovery of advance shall be time bound and shall commence after completion of 6 months from the issue of Letter of Acceptance (LOA) and it will be completed within 24 months from the issue of Letter of Acceptance (LOA). The recovery of Advances shall commence when 20% of the Original contract value of the work has been paid and it will be completed by the time 85% of the Contract Value has been paid or the original completion date whichever is earlier. As far as possible the recovery of advances shall be limited to 30% of an account bill.	There is discrepancy in provision of GCC & SCC regarding recovery of mobilization advance. Please confirm which provision is applicable. If provision of clause 11.2.1 of SCC is applicable. Bidder understand that in case of Extension of time granted by Employer under clause 8.4, the time for recovery of advance shall be increased in the proportion of time extension granted. Please confirm.	Please refer Annexure 6 of Addendum-05.
151	8	Clause 11.2.2 of SCC page-107 & Clause 11.2.4 of GCC , Page-54	Recovery of advance shall be time bound and shall commence after completion of 6 months from the issue of Letter of Acceptance (LOA) and it will be completed within 24 months from the issue of Letter of Acceptance (LOA). a. The recovery of Advances shall commence when 20% of the Original contract value of the work has been paid and it will be completed by the time 85% of the Contract Value has been paid or the original completion date whichever is earlier. As far as possible the recovery of advances shall be limited to 30% of an account bill.	There is discrepancy in provision of GCC & SCC regarding recovery of advance payments. Please confirm which provision is applicable. If provision of clause 11.2.1 of SCC is applicable. Bidder understand that in case of Extension of time granted by employer under clause 8.4, the time for recovery of advance shall be increased in the proportion of time extension granted. Please confirm.	Please refer Annexure 6 of Addendum-05.
152	9	Clause 11.2.2 of GCC ,Page 54 & Clause 11.2.2 of SCC, Page 107	The total advance for Plant & Machinery shall be limited to 5%. This shall also be an interest free advance. Clause 11.2.2 of SCC- Interest on this advance shall be charged at rate equal to prime lending rate of SBI at the time of release of advance. - Interest on this advance shall be charged at rate equal to prime lending rate of SBI at the time of release of advance.	There is discrepancy in provision of GCC & SCC regarding interest on advance for Plant & Machinery. Please clarify. Bidder request authority to provide interest free advance for Plant & Machinery.	Special Conditions of contract supercedes/modifies corresponding clause of General Conditions of contract.
153	10	Clause 11.6.1(a) of GCC, Page 57,	After preliminary scrutiny and certification by the Engineer, payment of 80% of the certified interim amount shall be made by the Employer within 14 days. The amount certified shall account for all deductions, including statutory deductions, recoveries for advances and any amounts due from the Contractor. The balance 20% shall be paid within 28 days, from the date of the preliminary certification of the bill by the Engineer. (b) Next 80% interim payment shall be made only after 100% payment of preceding interim payment certified has been completed.	The time period for issuance of interim payment certificate by Engineer is 21 days, 80% payment would be released after 14 days from certification. Thus, the total time for release of 80% of bill amount is 35 days. Bidder request Employer to release 80% of interim payment within 10 days from date of submission of application to maintain smooth cash flow at site.	As per tender conditions.
154	11	Employer's Requirements/ Section–B/Functional – clause 2.1 (7) - SCOPE OF WORKS, Page 19	Besides utilities indicated in the tender drawing, all above ground utilities infringing with the work sites shall also be considered as Charted utilities.	Since the cost of shifting of charted utilities to be included in contractor's lump sum price (Schedule A), the scope of shifting of charted utilities should be sacrosanct. Bidder request Employer to provide the list/ drawing of all charted utilities to be shifted/ diverted for carrying out the work or the cost of shifting of all utilities shall be paid under schedule B & C.	As per tender conditions.

Sl. No.	Bidder's S.No.	Reference Volume / Clause	Existing Clause	Queries	UPMRC's Reply
155	12	EMPLOYER'S REQUIREMENTS APPENDIX 12 – clause 13 – UTILITIES Page 108	13. NOC & Approval of schemes of diversion of utilities from the concerned regulatory/statutory/ local authority is the responsibility of contractor and nothing extra is payable on this account.	rese	As per tender conditions.
156	13		Escalation/ Price Adjustment	Bidder understand that Escalation is payable on work done for the month.	As per tender conditions.
157	14	EMPLOYER'S REQUIREMENTS APPENDIX 2A - WORKS AREAS, Page 64	The employer will provide the work areas of Approx. 6 hectare of land for casting yard for construction of segments for Tunnel construction & stacking Depot within 20 Km radius of work site.	Please provide the tentative location of casting yard.	As per tender conditions.
158	15	Employer's Requirements/ Section–B/Functional – clause 10 - URBAN PLANNING FUNCTIONAL REQUIREMENTS,Page 26	The Station Site Plans are based on the urban planning design carried out by the Employer and specific land acquisition plans will be submitted to the Government of Uttar Pradesh (GoUP) and to the concerned land-owning agencies, for approval. The land acquisition proposed to be initiated to date is therefore based on the entrance, ventilation shafts, ancillary buildings and redevelopment of the site areas as shown on the site plans. The Contractor must therefore, if revising the tender drawings for any reason, develop his layouts to suit the available land provided for the metro works.	Please provide the status of land acquisition for the project.	As per tender conditions.
159	16	-	-	In the event the Project Completion Date occurs prior to the Scheduled Completion Date, the Contractor shall be entitled to receive a payment of bonus being a standard practice in the construction industry. Bidder request Authority to introduce bonus clause in the contract agreement.	As per tender conditions.
160	17	Employers Requirement's, Appendix 2A, Work Areas , Page-64		Location of Casting yard not mentioned. Please Clarify.	As per tender conditions.
161	18	Employers Requirement's, Appendix 2A, Work Areas , Page-64		Specific Location of Dumping Yard and its corresponding lead not mentioned. Please Clarify.	As per tender conditions.
162	19	General		Status of Permission for Demolition of Existing structures for Rawatpur Station not mentioned. Please Clarify	As per tender conditions.
163	20	Drawing No: KNPDD01-TDR-KNPCC-11/Work Area/RWT/02	Work Area Drawing Rawatpur Station	Status of Land Acquisition for Rawatpur station since land is currently occupied by UPSRTC and their workshop is operational. Please Clarify.	As per tender conditions.
164	21	Employer's Requirements, Appendix 2B, Page 67	Contract Key Dates and Completion dates	KD -21 Completion of Trackway basic structure is scheduled at 99 weeks from Date of commencement. This seems to be unfeasible and proposed to be rescheduled to 120 weeks or beyond.	Please refer Annexure 9 of Addendum-05.
165	22	General		Can we provide columns along center line of station in middle portion of station box?	Please refer Annexure 16 of Addendum-05.
166	23	General		Section of UG open ramp is not provided. Applicability of cut & cover box section given even in shallow ramp where covering is not possible. Please clarify.	Please refer Annexure 16 of Addendum-05.
167	24	General		Profile of depot line not provided. Please provide the same.	Please refer Annexure 16 of Addendum-05.
168	25	General		Length of depot connection in scope not mentioned. Please clarify.	Please refer Annexure 16 of Addendum-05.

Sl. No.	Bidder's S.No.	Reference Volume / Clause	Existing Clause	Queries	UPMRC's Reply
169	26	NIT, Page-04		EMD is mentioned as 20.5 Crs (2%) of contract value. Request you to consider the same to be reduced to 10.25 Crs (1%) of contract value.	As Per Tender conditions
170	27	Drawing No: KNPDD01-TDR-KNPCC-11/Work Area/DPL/03	Work Area Drawing Double Pulia Station	Please clarify the status of land handing over at Kakadeo station for T2 land (175.872 sqm) and P4 land (324.463 sqm).	As per tender conditions.
171	28	General Arrangement Drawing, UPMRC-Design-UG-ST-120		There are 16 nos. piles beside each tunnel shown in drawing no UPMRC-DESIGN-UG-ST-120. As understood these has been proposed for ground improvement purpose. Whether these piles are mandatory to driven? We propose: 1) Extensive instrumentation and real time monitoring while TBM drive through under existing operational viaduct corridor. 2) Mining during only non-operational hours of elevated corridor. Please clarify.	As per tender conditions.
Bidder 4					
172	1	Cls.1.12 Table of Key Details UPMRC/KNPCC-11/Volume–1/ NIT Page 8 of 117	Date &time of Submission of Tender Tender submission start date: 23.03.2023 (11:00 hrs). Tender submission end date: 05.04.2023 (15:00 hrs).	Since the tender is on Design & Build basis, bidder needs to engage designer for preliminary tender stage design and obtaining quantity, needs to co-relate various drawing and data with the Employer's requirements & specification and work on various logistic requirements. However time available is less and hence bidder earnestly requests to grant 4 weeks' extension of Tender Submission deadline till 03.05.2023.	Please refer Addendum 4 uploaded on CPP Portal.
173	2	Cls.1.12 Table of Key Details UPMRC/KNPCC-11/Volume–1/ NIT page 6 of 117	Tender Security amount - INR 20.50 Crores The instrument type for payment of tender security/ EMD shall be Demand Draft, Bank Guarantee, Insurance Surety Bond, RTGS, NEFT & IMPS. No other mode of payment will be	Bidder earnestly requests, to reduce the EMD from present requirement of 2% of Estimated Cost to **0.5% of Estimated Cost**, which is generally accepted by various Government / Public Sector Enterprise.	As per tender conditions.
174	3	Cls.1.12 Table of Key Details, Appendix-1 to GCC Cls. 8.2 UPMRC/KNPCC-11/Volume–1/ NIT & Form of tender - Appendix-1 to GCC & Appendix 2B to Employer's Requirements Page 7 of 117 Page 100 of 117	Completion period of the Work : **30 months**	Considering the scope, quantum and nature of work invloving design, interface and approvals by Railway for work under the Track, other various interfaces and utility works required and finishes required etc., completion period of 30 months appears to be stringent. Bidder requests to review and consider completion period of **36 months.**	As per tender conditions.
175	4	SCC Cls. 28 to GCC Cls. 11.2.1 Vol.2 of Tender Document - Conditions 110 of 125	<u>Mobilization Advance Payment</u> - Last Para - Recovery of advance shall be time bound and shall commence after completion of 6 months from the issue of Letter of Acceptance (LOA) and it will be completed within 24 months from the issue of Letter of Acceptance (LOA).	Bidder earnestly submit to consider recovery of mobilisation advance to commence after 6 months from release of advance (1st installment) amount and fully recovered within 4 months prior to completion date.	Please refer Annexure 6 of Addendum-05.
176	5	SCC Cls. 29 to GCC Cls. 11.2.2 Vol.2 of Tender Document - Conditions Page 110 of 125	<u>Advance Against Plant & Machinery::</u> Last Para - The advance should normally not be more than 50 (fifty) percent of the depreciated cost of such plants and machinery hypothecated to UPMRC, before the payment of advance is released. …..	Contractor is required to submit Bank Guarantee of equivalent amount against the advance amount of Plant / Equipment to be purchased for the project and hence the requirement of hypothecation may please be removed for ease of working and avoiding unnecssary documentation / taxation procedures. Kindly amend the clause.	Please refer Annexure 6 of Addendum-05.

Sl. No.	Bidder's S.No.	Reference Volume / Clause	Existing Clause	Queries	UPMRC's Reply
177	6	SCC Cls. 12 to GCC Cls. 4.9 & GCC Cls.4.9 Vol.2 of Tender Document - Conditions 92 of 125 & Page 25 of 125	The Geotechnical and other related data provided by the Employer are based on the investigation conducted by employer and are for reference purposes only. The Tenderer should satisfy himself with the data furnished and make his own investigations if required for submitting his offer. Any change in design or construction methodology later during execution.....	Bidder submits, 1. With various constraints, from time to access, it is hardly practicable to carryout any further investigation for tender purpose and bidder can submit his proposal on basis of factual interpretation of data provided by the Employer. 2. Data provided by the Employer in the tender will form the basis of consideration for any factual deviation. 3. If there is any major factual deviation, which could not be foreseen or interpreted from general reconnaissance of site or due interpretation of Data provided by the Employer, due consideration will be extended to the Contractor under GCC cls. 4.23. Kindly accept and confirm.	As per tender conditions.
178	7	APPENDIX 2B & GCC Cls.8.1 UPMRC/KNPCC-11/Volume–3/Employer's Requirements/Appendices - & GCC Cls.8.1 74 of 187 & Page 47 of 125	APPENDIX 2B CONTRACT KEY DATES AND COMPLETION DATE Starts from LOA	Bidder observes, there is contradiction, as all the key dates including completion is started from Date of LOA, However, Date of commencement will be the date mentioned in LOA or NTP, as mentioned in Appendix-1 to GCC as below - "Latest 'date for commencement' of the Works - Clause 8.1 of the GCC Date given in LOA or Employer's Notice to Proceed". Bidder understands, all the Key date will be observed from the date of commencement, which is 42 days from date of LOA or the date on which obstruction free site will be handed over to the Contractor, which ever is the latest. Kindly confirm.	As per tender conditions.
179	8	APPENDIX 2A UPMRC/KNPCC-11/Volume–3/Employer's Requirements/Appendices Page 73 of 187	WORKS AREAS Part A - The employer will provide the work areas of Approx. 6 hectare of land for casting yard for construction of segments for Tunnel construction & stacking Depot within 20 Km radius of work site.	Part-A : Work area of 6 Hectare - Bidder submits, for work area set-up including segment storage etc. an area of 9 hectare will be minimum requirement. Hence Bidder requests earnestly to consider work area for 9 hectare instead 6 hectare. Kindly accept and confirm	As per tender conditions.
180	9	APPENDIX 2A UPMRC/KNPCC-11/Volume–3/Employer's Requirements/Appendices Page 73 of 187	WORKS AREAS ..... Part C - All the work areas /land given to the contractor shall be handed over back to the Employer within 28 days from the date of issue of Take over Certificate.	Part - C : Return of work area - It is required by the Employer to return the work area within a period of 28 days. Bidder earnestly submit, after taking over certificate, dismantling of entire establishment, and arranging transport and dispatch of entire set-up is highly stiff target. Bidder request the Employer to allow 84 days and amend the provision accordingly.	As per tender conditions.
181	10	APPENDIX 2A UPMRC/KNPCC-11/Volume–3/Employer's Requirements/Appendices Page 73 of 187	WORKS AREAS Others	Bidder observes, there is no mention for work area for assembling the TBM at launching site. Bidder earnestly submit, an area of 5400 Sqm [90m x 60m] is required for assembly and launching of TBM at Launching site. Bidder earnestly requests to consider the same and arrange the required area there at launching site.	As per tender conditions.
182	11	Drawings, Vol ume -6		Bidder earnestly requests to provide the Cad files of all the tender drawings for accurate simulation study and estimation.	AutoCad version of all drawing is being provided by email. However, in case of any discrepancy between soft copy and hard copy, hard copy attached with tender will prevail.
183	12	Drawings, Volume- 6		During site visit, bidder has observed that on the tunnel alignment between Kakadeo and Rawatpur Station there is a building named 'Shiva Apartments', please arrange to provide it's foundation details as the building is in very close proximity of the tunnel.	As per tender conditions.

Sl. No.	Bidder's S.No.	Reference Volume / Clause	Existing Clause	Queries	UPMRC's Reply
184	13	Section-B Functional 2. Scope of Work Employer's Requirements, Volume -3 Page 18	"4. …Area available in medical college campus shall be used only for retrieval of TBM."	Bidder also wants to use this shaft for TBM launching purpose, please ensure that the required additional temporary land will be provided adjacent to the shaft during execution period.	As per tender conditions.
185	14	Section-B Functional 2. Scope of Work Employer's Requirements, Volume - 3 Page 20	"17. (b) Retrieved materials obtained from demolition/dismantling of Rawatpur UPSRTC Structures except T&P, Machineries etc shall be the property of the contractor."	Please provide us with the details of Structurers that to be demolished for the quantification of the same.	As per tender conditions.
186	15	Section-B Functional 2. Scope of Work Employer's Requirements, Volume - 3 Page 22	"35. Alignment passes below/through nallahs/drains/Railway/Metro structure and below/adjacent to basements and foundations of buildings/religious structures/pumping stations/petrol pumps/balconies/other structures. Contractor has to take adequate strengthening measures to ensure the safety of the existing foundation of the structures. The contractor should ensure that the design and construction should be carried out with adequate measures for the safety of these structures..."	Please provide us with the details of the foundations of the said structures/railway/metro lines/nallahs/drains/petrol pumps/ basements etc. for proper assessment.	As per tender conditions.
187	16	Section-B Functional 2. Scope of Work Employer's Requirements, Volume - 3 Page 22	"36. The alignment is passing below existing viaduct of corridor-I between Pier no 203 & C7 Rawatpur. The Contractor has to take adequate strengthening measures to ensure safety of viaduct including foundation."	Please provide us with the details of the foundations of the said structures.	As per tender conditions.
188	17	Appendix 2A Work Areas Employer's Requirements, Volume - 3 Page 64	"The employer will provide the work areas of Approx. 6 hectare of land for casting yard for construction of segments for Tunnel construction & stacking Depot within 20 Km radius of work site. Dumping ground/s within 20 km radius of worksite will be identified by Employer from time to time during execution of contract and made available to the contractor."	Bidder wants to know whether the exact location of Casting Yard and Dumping Yard land has been identified. If so, please provide us with the location details for more accurate estimation.	As per tender conditions.
189	18	Appendix 2B Key Dates Employer's Requirements, Volume - 3 65	Key Date 2 (6 Weeks) - Submission of the copy of the agreement /LOA /Purchase order for purchase of TBMs or a proof of availability of TBM's ready for deployment or combination thereof. This period will include two weeks for design review for Engineer.	Finalization of the TBM requires a lot of project specific data like GIR etc. which is a time taking job. Hence, bidder requests to extend the Key Date upto at least 15 Weeks.	Please refer Annexure 9 of Addendum-05.
190	19	Appendix 2B Key Dates Employer's Requirements, Volume - 3 Page 65	Key Date 6 (37 Weeks) - Start of Initial drive for TBM No.–1	Starting of 1st TBM in 37 weeks is very soon, bidder requests to extend the Key Date upto at least 52 Weeks.	Please refer Annexure 9 of Addendum-05.
191	20	Appendix 2B Key Dates Employer's Requirements, Volume - 3 Page 65	Key Date 7 (43 Weeks) - Start of Initial drive for TBM No.–2	Starting of 2nd TBM in 43 weeks is very soon, bidder requests to extend the Key Date upto at least 56 Weeks.	Please refer Annexure 9 of Addendum-05.

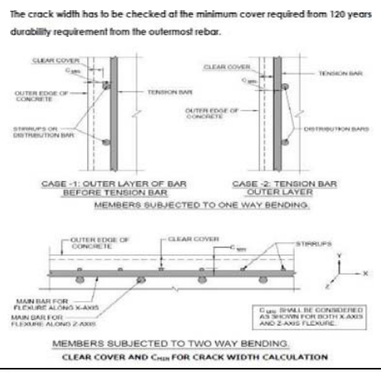
Sl. No.	Bidder's S.No.	Reference Volume / Clause	Existing Clause	Queries	UPMRC's Reply
192	21	Appendix 2B Key Dates Employer's Requirements, Volume - 3 Page 65	Key Date 8 (70 Weeks) - Completion of Track way Basic Structure for designated contractors access- Track way including construction of cross passages,1st stage track bed concrete including drainage for 1st block section between 1st pair of stations (both up and down line)	To achieve the Key Date 8 in only 70 Weeks is overly optimistic, bidder requests to extend the Key Date upto at least 90 Weeks.	Please refer Annexure 9 of Addendum-05.
193	22	Appendix 2B Key Dates Employer's Requirements, Volume - 3 Page 67	Key Date 21 (99 Weeks) - Completion of Track way Basic Structure for designated contractors access- Track way including construction of cross passages,1st stage track bed concrete including drainage for entire section including all stations (both up and down line)	To achieve the Key Date 21 in only 99 Weeks is overly optimistic, bidder requests to extend the Key Date upto at least 120 Weeks.	Please refer Annexure 9 of Addendum-05.
194	23	Dwg No: KNPAGDDC-01-PRD-DP1-STR-DWG-93010 Drawings, Volume-6	-	Bidder Understand Scope of Work for Depot Ramp is upto CH:(+) 438.405 for Depot Exit Line and CH:(+) 356.693 for Depot Entry Line.Access Slab is the scope of Depot Contractor.Please confirm.	Please refer Annexure 16 of Addendum-05.
195	24	KNPDD-01/KNPCC-11/GAD/SH 03 OF 07 AND KNPDD01-TDR-KNPCC-11/WORK AREA/RWT/01 Drawings, Volume-6	-	Some Mismatch is there in dwg near Upholstery Shop at Rawatpur Station between Work Area dwg and General Arrangement Dwg.Bidder wants to confirm the Scope of Work.	Please refer Annexure 16 of Addendum-05.
196	25	Clause no.2.7.5 Loading Conditions Outline Design Specification, Volume-4 Page 49	Ground Water Table assumed to be 4m above the maximum water. Level observed in the past 20 years from Central Water Commission in the vicinity of the site. If not available, it shall be based on pro-rata basis. However, additional check has to be performed for lowest water table also.	Bidder request Client if CWC data can be supplied.	As per tender documents.
197	26	Clause no.2.7.16 Temporary Access Shaft on road alignment Outline Design Specification, Volume-4 Page 56	It is brought to the Contractor's attention that the design and construction of temporary access shafts in conjunction with the permanent works may be necessary. The design shall aim to minimize long term traffic disruption at this location. The size, layout and period of occupation of road space at this access shaft shall be included in the Contractor's submissions for consent.	Bidder understands if any additional Land is required for Shaft construction that has to be supplied to Contractor.	Please refer Annexure 16 of Addendum-05.
198	27	Clause 2.7.9 , a) Outline Design Specification, Volume-4 Page 52	A segemtn shall be considered and desgnd as a short colum (as per IS456 proviion of columns) subjected to axial load with a load factor of 1.4……..	In the load combination table for tunnel design ULS load factor is mentioned as 1.5 , where as in clause it is 1.4 , Bidder wants to confirm which load factor to be used.	As per tender conditions.
199	28	Clause 14.1.3 Employers Requirements, Volume-3 Page 12	……. And the Contractors are required to consider in their porposal the cost of minimum recommended specilized software package licenses ……	Bidder wants to confirm wheter this BIM 360 modelling is under the scope of contractor or not.	As per tender conditions.
200	29	General	Alignement Drawings	Bidder requests to provide upline and downline chaninages for Station , C&c and shaft in the alignment seperately.	Please refer Annexure 16 of Addendum-05.
201	30	Annexure-4A, 4B, 4C & 4 and Appendices under Annexure-4 to ITT UPMRC/KNPCC-11/Volume–1/ NIT Page 61 to 79 of 117	Various forms under Annexure-4 (4A, 4B, 4C &4)	Bidder finds, various forms under various Apprndix is marked as "deleted" or "Not in use". Bidder understands, such forms are not required to be submitted. Kindly confirm.	"Deleted" or "Not in use" clauses are not relevant to the present tender.

Sl. No.	Bidder's S.No.	Reference Volume / Clause	Existing Clause	Queries	UPMRC's Reply
202	31	Appendix-L to Annexure-4 to ITT UPMRC/KNPCC-11/Volume–1/ NIT Page 79 of 117	APPENDIX L – ELECTRICAL CONTRACTOR LICENSE (To be enclosed)	Bidder understands, under Appendix-B (1), Bidder to submit a list of Subcontractor, identified for probable association. Hence Bidder requests to consider, after award of work and finalization of Electrical subcontract, contractor will submit the form - " ELECTRICAL CONTRACTOR LICENSE". Hence Bidder requests to amend the provision for such submission in post award stage. Kindly confirm.	Agreed
203	32	Cls.1.12 Table of Key Details UPMRC/KNPCC-11/Volume–1/ NIT Page 7 of 117	Last date of Seeking Clarification - 13.03.2023 @ 18:00 Hrs Tenderers to note that seeking clarification on the tender shall be done by sending it on e-tendering portal only. Seeking clarification by fax or post will not be considered.	Bidder earnestly requests, since in a DB tender of such statute, in depth study of specifiocation and logistic simulation is required, to allow atleast 10 more days for seeking clarificatiopn. Hence Bidder earnestly requests to amend the last date of seeking Clarification till 23.03.2023 @ 18:00 hrs. Kindly accept and confirm.	Please refer Addendum 4 uploaded on CPP Portal.
204	33	Appendix-12 UPMRC/KNPCC-11/Volume–3/Employer's Requirements Page 116 of 187	Responsibility of the Contractor and Payment- 1. The Contractor shall make his own enquiries and investigations, including excavating trial holes, to ascertain the existence, nature, location and size of utilities. A schedule of utility diversions and utilities to remain but to be supported (the utility diversion plan) will be prepared.....	Bidder understands, the Employer has already intimated to the relavent authority for occurrence of utility services, and a general plan is prepared. Based on which, the Contractor will exercise the confirmatory investigation for actual position of the utilities. Bidder requests to confirm, if the bidders understanding is not correct, as well as bidder requests the existing utility plan.	As per tender conditions.
205	34	Appendix-12 UPMRC/KNPCC-11/Volume–3/Employer's Requirements Page 116 of 187	Responsibility of the Contractor and Payment- 2. Contractor shall be responsible for liasoning with utilities owning department and taking approval for shifting of utilities. Employer may facilitate in this process.	Bidder understands, the Employer will extend intense support in the lialization process. Further, in accordance to preliminary study of drawings provided, some religious places is superimposed with the alignment. Bidder understands, the Employer will bear the entire responsibility in such case. Kindly confirm, if bidder's understanding is not correct.	As per tender conditions.
206	35	General	General Technical	Bidder submits, Bidder will assess the cost for a comprehensive bid on basis of cnsideration that obstruction and hindrence free work site will be prvided by the Emploer to the Contractor, immediately, Various data provied by the Employer are true and properly representing the actual condition in ground and Emloyer will facilitate for various perissions required. Such is the general requirement for proper and timely execution of the job, conforming to the Employer's requirement.	As per tender conditions.
Bidder 5					
207	1	Volume—1/ NIT / 1.1.4.2 Minimum Eligibility Criteria: Page No. 7	** “Substantial” completion shall be based on 80 (eighty) per cent (value wise) or more works completed under the contract as well as functional completion of the work. Client Certificate for ‘substantial completion' of project/work/asset should contain two parts. Part -I shall contain ‘financial value of work done' and part-II shall contain ‘certificate of functional completion of project/work/asset'.	Substantial completion of Design Build contract based on 80% (eighty) per cent (value wise) is in itself is a major completion of contract and hence, value wise 80% completion is followed in various similar contracts invited by metro organisations. As such we request to removie requirement of functional completion of work. Kindly consider and confirm.	As per tender conditions.
208	2	Volume—1/ NIT / 1.1.4.2 Minimum Eligibility Criteria: Page No. 7	** “Substantial” completion shall be based on 80 (eighty) per cent (value wise) or more works completed under the contract as well as functional completion of the work. Client Certificate for ‘substantial completion' of project/work/asset should contain two parts. Part -I shall contain ‘financial value of work done' and part-II shall contain ‘certificate of functional completion of project/work/asset’.	We understand that completion of civil works under the contract *(which is value wise 80% completion)* to handover to various system works contracts such as Track works, electrification etc. is nothing but “Functional completion of work”.	As per tender conditions.

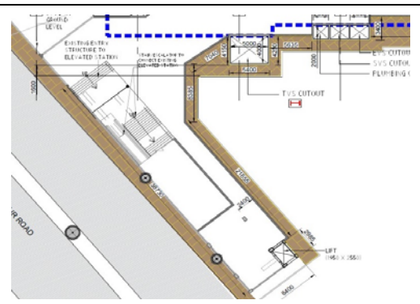
Sl. No.	Bidder's S.No.	Reference Volume / Clause	Existing Clause	Queries	UPMRC's Reply
209	3	Volume—1/ NIT / 1.1.2 KEY DETAILS: Last date of Seeking Clarification / Page No. 5	13.03.2023 @ 18:00 Hrs Tenderers to note that seeking clarification on the tender shall be done by sending it on e- tendering portal only. Seeking clarification by fax or post will not be considered. Queries/clarifications from tenderers after due date and time shall not be acknowledged.	The Joint site visit is schedule on 20/03/23. Basis the site visit and subsequent understanding of site conditions, bidder shall have additional queries for clarifications. As such, we request employer to allow bidders to submit additional queries upto **24/03/2022.** Kindly Consider and Confirm.	As per tender conditions.
210	4	Volume—1/ NIT / 1.1.2 KEY DETAILS: Date & time of Submission of Tender / Page No. 6	Tender submission start date: 23.03.2023 (11:00 hrs). Tender submission end date: 05.04.2023 (15:00 hrs).	Being Design & Build project, it involves substantial quantum of prebid work and coordination with specialist vendors and suppliers. Also, various clarifications and addendums yet to be issued by authority which will have impact on technical proposal. Hence, we request authority to extend the bid submission due date by at least 3-4 weeks from present bid submission date.	Please refer Addendum 4 uploaded on CPP Portal.
211	5	VoI_2_GCC_SCC KNPCC11/2.2/2	**Access to and Possession of the Site** If the Contractor suffers delay from failure on the part of the Employer to grant right of access to, or possession of the Site, the Contractor shall give notice to the Engineer in a period of 28 days of such occurrence. After receipt of such notice the Engineer shall proceed to determine any extension of time to which the Contractor is entitled and shall notify the Contractor accordin I . For any such delay in handing over of site, Contractors will be entitled to only reasonable extension of time and no monetary claims whatsoever shall be paid or entertained on this account	As delay in possession of site will hamper progress of work, request the authority to include monetary claims regarding any delay in possession of site. Kindly Consider and Confirm	As per tender conditions.
212	6	Vol 3 EmployersRequirement KNPCC11/2/19	The contractor will submit the method statement of tunnelling under existing railway tracks supported by design calculations and instrumentation and monitoring scheme. Work shall be executed in accordance with the approval and terms and conditions laid by the Indian Railways.	Request the authority to arrange permission from railway department. Kindly Consider and Confirm	As per tender conditions.
213	7	Vol_2_GCC SCC_KNPCC11/11.13/104	The price variation shall be limited to 25 per cent of contract value (including variations in BOQ items)	Request to authority to change this clause by removing capping 25 % variation. Kindly Consider and Confirm	As per tender conditions.
214	8	General -Relocation of structures	Temple in alignment at Entry — Exit at Kakadeo Station.	There is temple in project alignment at entry -exit at kakdeo station. Request authority to relocate for same.	As per tender conditions.
Bidder 6					
215	1.	Vol_3 Appendix 2B CONTRACT KEY DATES AND COMPLETION DATES + Vol_1 NIT, page – 5, Completion period of the Work		Since this is a design & build contract and there are lot of utilities along the stations, we request you to increase the contract duration to 36 months and increase the key dates accordingly	As per tender conditions.
216	2.	Clause: 11.1.3 of SCC (part 1), Vol-2 Equipment index, Pg no: 105	Wmo = Wholesale Price Index (Averages) for Machinery and Equipment as published in the RBI Bulletin, for the month in which the tender was opened.	We presume that “MANUFACTURE OF MACHINERY AND EQUIPMENT” Index published by RBI is applicable. Please confirm.	As per tender conditions.

Sl. No.	Bidder's S.No.	Reference Volume / Clause	Existing Clause	Queries	UPMRC's Reply
217	3.	Appendix -2A, Vol-3 WORKS AREAS, Pg no: 64	The employer will provide the work areas of Approx. 6 hectares of land for casting yard for construction of segments for Tunnel construction & stacking Depot within 20 Km radius of work site. Dumping ground/s within 20 km radius of worksite will be identified by Employer from time to time during execution of contract and made available to the contractor. All the work areas /land given to the contractor shall be handed over back to the Employer. within 28 days from the date of issue of Take over Certificate. In case of part takeover, the period of 28 days shall be counted from the last takeover certificate.	We presume that the Employer shall provide Work areas. free of cost. Please confirm.	As per tender conditions.
218	4.	Clause: 4.2.1 of SCC Performance Security, Pg no: 86	Within 30 days from date of issue of the Letter of Acceptance, the successful Tenderer shall furnish Performance Security, for an amount of three (03) per cent of the Contract value in types and proportions of currencies in which the Contract Price is payable either in the form of a Bank Draft, FDR or in the form of a Bank Guarantee from a branch in India of a scheduled foreign bank or from a scheduled commercial bank in India acceptable to the employer	We presume that Performance security shall be 3% of Contract Value/Price for the works under contract. We understand that the Performance Security can be proportionately reduced after completion of DLP for Civil works. Please confirm	As per tender conditions.
219	5.	Clause: 2.2 of SCC(part-1), Vol-2, Page no 85	Site access schedule will be consistent with the resettlement plan for the section.	Please provide the resettlement plan for the works and dates for possession of site.	As per tender conditions.
220	6.	Volume 2, Page 75, General Conditions of Contract, Clause 16.7, Optional Termination, Payment and Release	Entire Clause	Requesting Employer to delete this clause	As per tender conditions.
221	7.	Clause: 11.6.1 of GCC, Vol-2 Interim Payment Pg no: 57	a) After preliminary scrutiny and certification by the Engineer, payment of 80% of the certified interim amount shall be made by the Employer within 14 days. The amount certified shall account for all deductions, including statutory deductions, recoveries for advances and any amounts due from the Contractor. The balance 20% shall be paid within 28 days, from the date of the preliminary certification of the bill by the Engineer	The time for certification by the Engineer is 21days and payment would be released within 14days from certification. For better cashflow in a capital intrinsic project, we request you to provide 80% of interim. payment within 14 days from date of submission of application.	As per tender conditions.
222	8.	Volume-2, Page 56, General Conditions of Contract, Clause 12.5 (ii) b), Variation in Bill of quantities	(b) In case of foundation work, no variation limit applies, and Contractor shall carry out the Work, at rates stipulated in the Contract irrespective of any variation	The condition of Clause 12.5 (ii) a) should be applicable. in the case of foundations too. Hence, we request the employer to delete this sub-clause	As per tender conditions.
223	9.	Volume-2, Page 50, General Conditions of Contract, Clause 9.1, Taking Over Certificate	Entire Clause	Please confirm that Taking Over Certificate shall be issued on completion of Civil Works only and shall not be linked to Integrated Testing and Commissioning.	As per tender conditions.

Sl. No.	Bidder's S.No.	Reference Volume / Clause	Existing Clause	Queries	UPMRC's Reply
224	10.	Volume-2, Page 25, General Conditions of Contract Clause 4.7, Compensation for Breach	Any breach of Sub-clauses 4.5 to 4.6 shall entitle the Employer to rescind the contract under Clause 13.2 of these conditions and also render the Contractor liable for loss or damage arising due to such cancellation	We request employer to delete this clause	As per tender conditions.
225	11.	Volume-2, Page 24, General Conditions of Contract, Clause 4.12, Rights of way and Facilities	The Employer will acquire and provide land for Permanent works and right of way (within UPMRC's land) for access thereto over routes established by the Contractor. The Contractor shall bear all cost and charges for special or temporary rights of way which he may require including those for access to the Site. The Contractor shall also obtain, at his risk and cost, any additional facility outside the Site which he may require for the purpose of the Works. The Employer reserves the right to make use of these service roads/ rights of way for itself or for other Contractors working in the area, as and when necessary, without any payment to the Contractor.	We request employer to provide the expected date/schedule of handing over of land and right of way to the Contractor for permanent works (ROW).	As per tender conditions.
226	12.	Volume-2, Page 46, General Conditions of Contract, Clause 8.4.1, Extension of time	Entire Clause	Please add for the EOT due to delay in approvals from the authorities for: Utility diversion, Traffic & Tree cutting permission as the above is beyond the control of the Contractor.	As per tender conditions.
227	13.	Volume-3 Employer Requirements Page: 64 Appendix 2A – Work Areas	The employer will provide the work areas of Approx. 6 hectares of land for casting yard for construction of segments for Tunnel construction & stacking Depot within 20 Km radius of work site.	We request employer to provide Casting Yard Land dimensions to plan Yard Layout for casting and stacking of segments.	As per tender conditions.
228	14.	Volume-3 Employer Requirements Page: 64 Appendix 2A – Work Areas		Casting Yard handover by Employer shall be free of demolition works and tree cutting works. if any deviation please confirm.	As per tender conditions.
229	15.	Volume-3 Employer Requirements Page: 67 Appendix 2B– Key dates	Key date 25: Integrated testing and handed over and Peak Season Performance Testing & final system adjustment. Providing the Clearance Certificate from all Civil Agencies e.g., Fire Department, etc.	Since MEP works are not in the part of Scope of works, Integrated testing should not be a part of the work. Hence, we request employer to delete this key date.	Please refer Annexure 9 of Addendum 5.
230	16.	Volume-3 Employer Requirements Page: 107 Appendix 12	Utilities	As employer is much aware of the alignment ground condition, we request employer to provide list of mandatory utilities to be supported in place in station and Ramp location which helps the contractor to arrive at supporting arrangement quantities	As per tender conditions.
231	17.	Volume-6 Tender Drawings	Architectural, Alignment, Utilities, MEP	We request employer to provide CAD files of the drawings for ease to working and to plan the work area of the stations and Ramp.	AutoCad version of all drawing is being provided by email. However, in case of any discrepancy between soft copy and hard copy, hard copy attached with tender will prevail.
232	18.	Volume-6 Tender Drawings	Architectural	Kindly confirm whether station D-wall Layout can be modified to suit TBM drive through at some stations.	As per tender conditions.
233	19.	Volume-3 Employer Requirements Page: 27 11.Traffic Management	Contractor shall develop appropriate construction methodology and sequence so that at any stage of construction at least 2 lanes of carriageway remain open to traffic at all times.	1.Please confirm Whether one way of traffic can be diverted through parallel roads. 2.Please confirm the minimum Traffic width to be provided for allowing traffic during construction stage.	As per tender conditions

Sl. No.	Bidder's S.No.	Reference Volume / Clause	Existing Clause	Queries	UPMRC's Reply
234	20.	Volume 6 – Drawings Part A Tender Drawing – General Alignment drawing no. UPMRC/KNPDD-01/KNPCC-11/GAD/SHEET 01 of 07		Please provide bifurcation between open UG Ramp and cut & cover tunnel at start of project.	Please refer Annexure 16 of Addendum-05.
235	21.	Volume 6 – Drawings Part A Tender Drawing – General Alignment drawing no. UPMRC/KNPDD-01/KNPCC-11/GAD/SHEET 02 of 07		Whether contractor can use Shaft area provided in medical college campus for TBM Launching operation. Please clarify	Please refer Annexure 16 of Addendum-05.
236	22.	Volume 6 – Drawings Part A Tender Drawing – Work Area drawing no. UPMRC/KNPDD-01/KNPCC-11/work area/DPL/04		TBM Launching shaft is shown in Work area drawing whereas same has been not shown in Alignment drawings. Please clarify.	Please refer Annexure 16 of Addendum-05.
237	23	Volume 6 – Drawings Part A Tender Drawing – Work Area drawing no. UPMRC/KNPDD-01/KNPCC-11/work area/DPL/04		TBM Launching shaft shown in Park area is just 200m away from the Double Pulia Station box, whether 200m between LS and DP Station box can be considered as TBM Tunnel or Cut & Cover. Kindly clarify.	Please refer Annexure 16 of Addendum-05.
238	24	Volume 6 – Drawings Part A Tender Drawing – UPMRC-DESIGN-UG-ST- 111 & 112	TEMPORARY BARRICADING	Please confirm whether the barricading board members given in the drawing can be modified without affecting the design	Please refer Annexure 16 of Addendum-05.
239	25	Volume -4, Page No. 66 Cl 2.8.6		It is mentioned that the crack width shall be checked for minimum cover required for 120 years durability requirement from outermost rebar. Then there is a figure given showing Cmin for two way bending members to follow Cmin as shown for both X and z-axis flexure. We understand that the crack width shall be checked for minimum cover sufficing 120years durability criteria from the outermost rebar (including links) for both X-axis and Z-axis Flexure. Please confirm.	As per tender conditions.
240	26.	Volume -4, Page No. 33 1.15.14.3 (b)	If the future developments are planned in the vicinity of station box and when surcharge exceed 24kPa, deep foundation system with additional measures like debonding of piles etc. shall be adopted.	Please confirm for future development no provision in loading needs to be considered, Only the future structure to be constructed with additional measures.	As per tender conditions.
241	27.	Volume -4, Page No. 65-66 2.8.5	Guidance can be sought from CIRIA C660 -latest version on Early Age Thermal control of concrete in this matter.	We understand that CIRIA 660 has been superseded by CIRIA C766. Please confirm which code to be followed for EAT checks.	Latest code can be followed for the EAT checks as per ODS.

Sl. No.	Bidder's S.No.	Reference Volume / Clause	Existing Clause	Queries	UPMRC's Reply
242	28.	Volume -4, Page No. 79 2.9.2	In general, Temporary Works shall be designed in accordance with the same design standards/principles as the Permanent Works.	Please specify load factor to be considered for Temporary Structures design in Cut & Cover structures.	As per tender conditions.
243	29.	Volume -4, Page No. 80 2.9.4	The maximum allowed calculated displacement for diaphragm wall in urban environment will be 35 mm corresponding to 25 mm vertical displacement at ground.	Please specify whether horizontal deflection in D-Wall can exceed 35mm if ground settlements are within limit.	Not permitted.
244	30.	Volume -4, Page No. 55 2.7.14	The design shall incorporate two sealing gaskets in the segment design. Materials for sealing gaskets shall be one gasket of hydrophilic material and one gasket of elastomeric type. Materials shall have acceptable fire performance for use on an underground railway.	In waterproofing of tunnels, can a single composite gasket comprising of elastomeric and hydrophilic strip instead of 2 gaskets as mentioned in Cl 2.7.14 be permitted.	As per tender conditions.
245	31.	Volume -4, Page No. 49 & 52 2.7.5 & 2.7.8 (a)	A segment shall be considered and designed as a short column (as per IS 456 provisions for columns) subjected to axial load with a load factor of 1.4 applied to all loads (including seismic load). The design of the segments shall be adequate for all temporary loads during stacking, lifting, erection and impact. The design forces will be derived based on following load factors. Load Combination | Dead Load(DL) | Imposed Load(IL) | Ground and Water Loads | Seismic Loads[4] (EQ) Adverse | Beneficial | Adverse | Beneficial | Adverse | Beneficial 1. DL + IL | 1.5 | - | 1.5 | - | 1.5 | - | - 2. DL + EQ | 1.5 | 0.9 | - | - | - | - | 1.5 3. DL + IL + EQ | 1.2 | - | 1.2 | - | 1.2 | - | 1.2 4. Collision/ Accidental | 1.5 | 1.0 | 1.5 | - | 1.5 | 1.0 | -	In loading conditions for tunnels in Cl 2.7.5, load combination table given shows load factor of 1.5 for DL, IL and EQ loads. Whereas the Cl 2.7.9 mentions a load factor of 1.4 to be considered to all loads including seismic. Pls clarify what load factor shall be followed in design of segmental tunnel linings.	As per tender conditions.
246	32.	Volume -4, Page No. 56 2.7.18	The openings into the running tunnels shall be as specified in NBC 2016 or latest. The cross-passage floor screed shall be laid to fall and drain into the running tunnel drainage system. Floor level shall correspond with the level of the tunnel escape route. 2.7.21 Tunnel Emergency Evacuation Walkway The Contractor shall be responsible for the design, provision and installation of a tunnel emergency evacuation walkway throughout bored and cut and cover tunnels. The location of the walkway shall be determined to provide a generally continuous walkway to permit emergency evacuation at any point in the tunnel. For a tunnel linking a side platform station to a central platform station the tunnel walkway can only provide continuity at one end. At the other end a fixed stairway shall be provided to	As per the Cl 2.7.21, walkway shall provide a continuous route to permit evacuation at any point in tunnel. As per Cl 2.7.18 Cross Passages floor level shall correspond with the level of tunnel escape route whereas the CP's must be designed as per NBC 2016 or latest. As per NBC guidelines, the floor of CP shall be 70mm from rail level. There is an ambiguity in these provisions or requirements. Kindly clarify what shall be the floor level of the cross passage to be followed.	As per tender conditions.
247	33.	Drawing No. UPMRC-DESIGN-UG-ST-104		Length of segments shown in view A-A and view B-B is 1500mm, please clarify whether different segment lengths i.e., 1200mm or 1400mm can be adopted.	As per tender documents.
248	34.	KNPDD01-TDR-KNPCC-11/WORK AREA/DPL/04		In the work area drawing of Double Pulia Station, a launching shaft has been shown at Kanpur Nagar Nigam Park which is missing in alignment drawing. Please clarify whether a separate shaft must be made for launching at this location.	Please refer Annexure 16 of Addendum-05.
249	35.	Alignment & Architecture Drawings		AutoCAD files of the drawings are requested to be provided.	AutoCad version of all drawing is being provided by email. However, in case of any discrepancy between soft copy and hard copy, hard copy attached with tender will prevail.

Sl. No.	Bidder's S.No.	Reference Volume / Clause	Existing Clause	Queries	UPMRC's Reply
250	36.	Architectural drawing of Kakadeo Station Drawing No. KNPAGDDC-01-TDR-KKD-ARC-PLN-42504 & KNPAGDDC-01-TDR-KKD-ARC- PLN-42502	-	Some permanent columns have been shown in Grid 4,6,8,11,12,15 & 16 which are shown in Undercroft level plan, but these columns are missing in concourse level plan. Please confirm whether these columns can be raised upto roof slab level. Also, there are mismatches in column location in platform level and Undercroft level plan.	Please refer Annexure 16 of Addendum-05.
251	37.	Architectural drawing of Rawatpur Station Drawing No. KNPAGDDC-01-TDR-RWT-ARC-PLN-41252 & KNPAGDDC-01-TDR-RWT- ARC-PLN-41254	-	Some permanent columns have been shown in Grid 2,3,4,6,8,9,10 which are shown in Undercroft level plan, but these columns are missing in concourse level plan. Please confirm whether these columns can be raised upto roof slab level. Also, one column is shown at Grid 11 in the bellmouth area at concourse level but on the other side bellmouth no column is shown at concourse level. Please confirm the column locations.	Please refer Annexure 16 of Addendum-05.
252	38.	Architectural drawing of Double Pulia Station Drawing No. KNPAGDDC-01-TDR-DPL-ARC- PLN-43002 & KNPAGDDC-01-TDR-DPL-ARC-PLN-43004	-	Some permanent columns have been shown in Undercroft level plan, but these columns are missing in concourse level plan. Please confirm whether these columns can be raised upto roof slab level . Also, at the bellmouth location span is large so at roof level columns are required. Please confirm whether columns can be provided in between roof and concourse level.	Please refer Annexure 16 of Addendum-05.
253	39.	Architectural drawing of Rawatpur Station Drawing No. KNPAGDDC-01-TDR-RWT-ARC-PLN-41252		Please provide foundation details of the existing elevated station near Rawatpur station. Also detail of existing entry of the elevated station is required.	Please refer Annexure 16 of Addendum-05.
254	40.	Alignment Drawing Drawing No. UPMRC/KNPDD-01/KNPCC-11/GAD/SHEET 4 OF 7		The tunnel alignment in between Rawatpur and Kakadeo station is passing near to the Shiv Apartment which is shown as B+G+9 many other high rise buildings. Please provide foundation detail of the apartment for analysis.	Please refer Annexure 16 of Addendum-05.
255	41.	Alignment Drawing Drawing No. UPMRC/KNPDD-01/KNPCC-11/GAD/SHEET 4 OF 7		The tunnel alignment in between Rawatpur and Kakadeo station is passing below Railway line and Overburden is around 10.2m. Please confirm whether this overburden will be sufficient below the railway line.	Please refer Annexure 16 of Addendum-05.
256	42.	Cross Passage Details UPMRC-DESIGN-UG-ST-105		Cross Passages are shown as circular section. Please confirm whether any other shape can be proposed for Cross Passages for example D-Shape.	As per tender conditions.
257	43.	Architectural drawing of Rawatpur Station Drawing No. KNPAGDDC-01-TDR-RWT-ARC-PLN-41255	PEB Roof as per Vendor details	Kindly clarify whether the PEB scope of works is part of this package.	As per tender conditions.
258	44.	Alignment drawings		Alignment along UP line is provided but the same for Down (DN) line is missing in the tender drawings. Please provide the Down line Alignment.	Please refer Annexure 16 of Addendum-05.

Sl. No.	Bidder's S.No.	Reference Volume / Clause	Existing Clause	Queries	UPMRC's Reply
259.	45.	Alignment drawings Drawing No. UPMRC/KNPDD-01/KNPCC-11/GAD/SHEET 1 OF 7		At Chainage +700m under construction building is shown. Please provide the foundation details of the same. The rail level is only 12.5m below the ground so it is important to have the foundation details of the under-construction building	As per tender conditions.
260	46.	Alignment drawings Drawing No. UPMRC/KNPDD-01/KNPCC-11/GAD/SHEET 5 OF 7		Between Chainage 2200 to 2800m the Alignment passes below several buildings and the rail is at shallow depth 13- 18m below ground. Please provide the foundation details of these buildings if they have piles	As per tender conditions.
261	47.	Alignment drawings Drawing No. UPMRC/KNPDD-01/KNPCC-11/GAD/SHEET 4 OF 7		The Alignment passes below the existing elevated metro line at chainage 1130m. Please provide the alignment and foundation details of the existing elevated metro line.	Please refer Annexure 16 of Addendum-05.
262	48.	Vol-3, SECTION B EMPLOYER'S REQUIREMENTS – FUNCTIONAL page-19 2.1	Design and Construction of underground, elevated ramps, and tunnel by Cut & Cover method, in Soil/Rock Strata as shown in the tender drawings. The Girders of Elevated corridors at both end of contract boundary shall rest on abutment wall of elevated ramp. The contractor shall do necessary interface with contractors of elevator corridor.	As per the GAD drawings there are cross over shown in the drawings. Request you to provide cross section details. Also provide the clear scope bifurcation between this package and depot line.	Please refer Annexure 16 of Addendum-05.
263	49.	Tender Documents -	-	Kindly provide the key plan showing the exact demarcation of Ramps, Tunnels & Stations with start & end chainages.	Please refer Annexure 16 of Addendum-05.
264	50.	Tender Documents -	-	Kindly provide a summary indicating the locations of High rise (G+3 & above) or critical or heritage buildings, the types of foundations and their distance from the proposed alignment.	As per tender conditions.
265	51.	Volume–3/ Employer's Requirements/ Section–B/ Functional 2.1 (4)	Area available in medical college campus shall be used only for retrieval of TBM.	Kindly provide the dimensions and GAD for Retrieval shaft.	As per tender conditions.
266	52.	Volume–4/Outline Design Specifications /Section-2 2.7.9 Segmental Linings	At least two different methods shall be used for design values as one method will serve as independent check on other.	Kindly clarify the statement.	1)Analytical method and 2) Finite element methods , one which will get conservative result shall be considered for design.
267	53.	Volume–4/Outline Design Specifications /Section-2 2.8.4 Flotation	The Contractor shall check the cut and cover tunnels for the possibility of flotation due to differential water pressure and shall design the structure such that adequate factors of safety against flotation are provided as set out below. During service stage analysis ground water level shall be assumed to be coincident with the Ground Level	Kindly clarify for what differential water pressures the structures need to be checked for floatation. As per contract documents, water table to be considered for permanent design is existing ground water level + 4m. this level contradicts to the water level specified for floatation check.	As per tender conditions.
268	54.	Volume–4/Outline Design Specifications /Section-2 2.9.1 Types and Applications	Ground support in soft ground areas shall be provided with rigid support systems	Kindly clarify the term “soft ground”.	As per tender conditions.

Sl. No.	Bidder's S.No.	Reference Volume / Clause	Existing Clause	Queries	UPMRC's Reply
269	55.	Volume–4/Outline Design Specifications /Section-2 2.9.4 Ground Movements	Establishment of an appropriate zone of influence shall be accepted as 50m either side of the tunnel centerline or the base of the excavation plus a spread of 45° to the horizontal in areas where structures are located whichever is more.	Kindly specify the zone of influence for stations and other underground structures from the outside face of the ground support walls.	Please refer the Tender documents.
270	56.	Volume–5/Outline Construction Specification/ Section-2 /Earthwork 2.2.4 Backfill to Structures	The backfill material shall be selected excavated material or sand, thoroughly compacted in layers not exceeding 200 mm deep to achieve a density of at least 95% of the maximum dry density.	Compaction of sand in layers is not required, since it is a self- compacting material, which can be compacted by water jetting. Kindly confirm if 200mm layer wise compaction is required.	As per tender conditions.
271	57.	Volume – 6 - Drawings – Part A KNPDD-01-TDR-UG0-GEN-LIS-00001A	Drawing Index of Tender Drawings – Drawing List	Ground Water Level data is missing.	As per tender documents.
272	58.	Volume – 6 - Drawings – Part A UPMRC-KNPDD-01-KNPCC11-GAD-SHEET 01 to 07	General Alignment Drawing (Upline)	Kindly provide the General Alignment Drawing for Downline also.	Please refer Annexure 16 of Addendum-05.
273	59.	Volume – 6 - Drawings – Part A UPMRC-KNPDD-01-KNPCC11-GAD-SHEET 01	General Alignment Drawing (Upline)	Kindly provide the water tank details (including founding level) located at chainage -0+080.	As per tender conditions.
274	60.	Volume – 6 - Drawings – Part A KNPDD01-TDR-KNPCC11-WORK AREA-CC- 01	Work Area Drawing C & C	Kindly provide the work area drawings for UG Ramp and elevated ramp from start of package to cut & cover tunnel.	Please refer Annexure 16 of Addendum-05.
275	61.	Volume – 6 - Drawings – Part A KNPDD01-TDR-KNPCC11-WORK AREA-DPL-04	Work Area Drawing Double Pulia station	The purpose of land at Kanpur nagar nigam is mentioned as TBM launching shaft. Is it mandatory to use that land for TBM launching? Kindly confirm.	Please refer Annexure 16 of Addendum-05.
276	62.	Volume – 6 - Drawings – Part A KNPDD01-TDR-KNPCC11-WORK AREA-DPL- 04	Work Area Drawing Double Pulia station	The proposed tunnel alignment is crossing Drain from chainage 2800 to 2900. Kindly provide the drain details like depth, open or closed etc.	As per tender conditions.
277	63.	Volume – 6 - Drawings – Part A UPMRC-DESIGN-UG-ST-120	Box girder steel bridge – 45m span P-203 to STP / C7 Rawatpur - General Arrangement Drawing	In this drawing, contiguous piles of 31 (15+16) nos are shown between existing metro pier foundation and proposed tunnel alignment. However, in as built drawing no. KNPDD-01-DTD-EL0-VDC-DWG-07141 these details are not captured, and foundation details of pier modified. Contractor likes to understand if these piles are to be installed if so, kindly provide the pile details, (pile diameter, spacing, concrete grade and pile termination level).	Please refer Annexure 16 of Addendum-05.
278	64.	Volume – 6 - Drawings – Part A and Part B UPMRC-DESIGN-UG-ST-120 and KNPAGDDC-01-PRD-DP1-STR-DWG-93010	Cut and Cover - Kanpur Metro Corridor-2 General Arrangement Drawing	Kindly clarify the mismatch in the plan and sections of cut and cover General Arrangement Drawings provided in Part A and Part B. (Ex: In drawing UPMRC-DESIGN-UG-ST-120, section CC incates that Main line and depot line rail level are same but in drawing KNPAGDDC-01-PRD-DP1-STR-DWG-93010 those rail levels are at different elevation).	Please refer Annexure 16 of Addendum-05.
279	65.	Volume – 6 - Drawings – Part B KNPAGDDC-01-PRD-DP1-STR-DWG-93010	Cut and Cover - Kanpur Metro Corridor-2 General Arrangement Drawing Sheet 1 of 2	For elevated ramp – Refer separate drawings is mentioned in plan. Kindly provide the plan and section drawings for elevated ramp.	Please refer Annexure 16 of Addendum-05.

Sl. No.	Bidder's S.No.	Reference Volume / Clause	Existing Clause	Queries	UPMRC's Reply
280	66.	Volume – 6 - Drawings – Part B KNPAGDDC-01-PRD-DP1-STR-DWG-93010	Cut and Cover - Kanpur Metro Corridor-2 General Arrangement Drawing Sheet 1 of 2	Kindly provide the details like chainage, ground level, rail level and alignment for Depot entry line and exit line.	Please refer Annexure 16 of Addendum-05.
281	67.	Volume-1; Instructions to Tenderers (ITT); Page: 24-26; Cl: A3.9 Ground for Exclusion		We request you to check the grounds for exclusion	As per Tender conditions
282	68.	Volume-1; Instructions to Tenderers (ITT); Page: 27; Cl: A3.11 Eligible Source Countries for Materials, Plant, and Services		We request you to check that there are no restrictions on the country of origin of Plant, Materials, and services to be provided under the Contract, but tenderer is encouraged to maximize the Involvement of domestic sources	As per tender conditions.
283	69.	Volume-1; Instructions to Tenderers (ITT); Page: 39; Cl: C7 Designer		We request to provide the timelines for Approval of the proposed Designer by Employer	As per Tender conditions
284	70.	Volume-2; General Conditions of Contract; Page No 10-11; Cl 1.5 Priority of Documents		We request to include Geotechnical Investigation Report in priority of documents.	As per Tender conditions
285	71.	Volume-2; Special Conditions of Contract; Page No 85; S. No 3 Employer's Use of Contractor's Documents		We request employer to take contractor's consent before copying or communicating to a third party	As per Tender conditions
286	72.	Volume-2; General Conditions of Contract; Page No 12; Cl 1.10 Compliance with Statutes, Regulations and Laws		We request to clarity regarding the status of Approvals/clearances to be obtained by the Employer.	As per Tender conditions
287	73.	Volume-2; Special Conditions of Contract; Page No 85; S. No 4 Access to and Possession of the Site		We request for cost compensation in case of delay in handing over the site We request to clarity regarding timelines for access and possession of the Site.	As per tender conditions.
288	74.	Volume-2; General Conditions of Contract; Page No 12; Cl 2.3 Permits, Licences or Approvals		We request to give clarity regarding Permits/Approvals to be obtained by the contractor for the contract and consider in schedule. Raise a PBQ and request for EOT and Cost Compensation if any delay in obtaining Permits, Licences or Approvals for reasons which are not attributable to contractor.	As per tender conditions.
289	75.	Volume-2; General Conditions of Contract; Page: 19-21; Cl: 4.4 Facilities for and co-ordination with others		We request for EoT and Cost for any delays caused due to the other Contractor's which are not attributable to contractor. We request to give clarity regarding the scope of integrated testing and commissioning. We request you to confirm that Integrated testing and commissioning will be completed soon after the Contractor completes his scope of works. We request for time and cost compensation for the delay beyond the completion of work by the Contractor to conduct the integrated testing and commissioning.	As per tender conditions.
290	76.	Volume-2; Special Conditions of Contract; Page: 89; S. No 13 Access routes		We request for Encumbrance free Access routes.	As per tender conditions.

Sl. No.	Bidder's S.No.	Reference Volume / Clause	Existing Clause	Queries	UPMRC's Reply
291	77.	Volume-2; General Conditions of Contract; Page: 29; Cl: 4.29 Discoveries		We request for EOT and Cost compensation in case of any delay due to any discoveries at the site.	As per tender conditions.
292	78.	Volume-2; General Conditions of Contract; Page: 41; Cl: 7.5 Testing		We request for time and cost compensation in case of Testing is delayed due to the reasons not attributable to the Contractor.	As per tender conditions.
293	79.	Volume-2; General Conditions of Contract; Page: 44-45; Cl: 7.12 Integrated testing and system commissioning		We request to give clarity regarding the scope of integrated testing and commissioning. We request to confirm that Integrated testing and commissioning will be completed soon after the Contractor completes his scope of works. We request for time and cost compensation for the delay beyond the completion of work by the Contractor to conduct the integrated testing and commissioning.	Plesae refer to addendum.
294	80.	Volume-2; General Conditions of Contract; Page: 46; Cl: 8.3 Delay		We request to delete the same	As per tender conditions.
295	81.	Volume-2; Special Conditions of Contract; Page: 99; S. No 23 Liquidated Damages for Delay		We request to reduce delay damages cap to 5% of Contract Price. We request to refund the LD levied in case of achievement on subsequent Milestone/KD or overall completion on time.	Please refer Annexure 9 of Addendum 5.
296	82.	Volume-2; General Conditions of Contract; Page: 52; Cl: 8.8 Consequences of Suspension		We request for compensation of actual cost incurred in the entire duration of suspension of the works	As per tender conditions.
297	83.	Volume-2; General Conditions of Contract; Page: 52; Cl: 10.9 Performance Certificate		We request for timelines for release of Performance Certificate after expiry of DLP.	As per tender conditions.
298	84.	Volume-2; Special Conditions of Contract; Page: 106-107; S. No 28 & 29 Mobilization Advance and Advance against Plant & Machinery		We request for interest free advance against P&M. We request to give clarity regarding the timeline for recovery of advances as its mentioned “20% to 85% of invoicing” in GCC: 11.2.4 and “6 months from the issue of Letter of Acceptance (LOA) and it will be completed within 24 months from the issue of Letter of Acceptance (LOA)” in SCC S.no: 28 & 29.	Please refer Annexure 6 of Addendum-05.
299	85.	Volume-2; General Conditions of Contract; Page: 57; Cl: 11.6.1 Payment- Interim and Final		We request for timeline for the preliminary certification by the Engineer. We request employer to confirm that 80% payment will be done within 14 days of submission of Interim payment Application.	As per tender conditions.
300	86.	Volume-2; General Conditions of Contract; Page: 74; Cl: 16.1 Force Majeure		We request to include epidemic situations like Covid-19 as a compensable event	As per tender conditions.
301	87.	Volume- 1, pg 12 NIT 1.1.18	Employer reserves the right to accept or reject any or all proposals without assigning any reasons. No tenderer shall have any cause of action or claim against the employer for rejection of his proposal.	We request for deletion of the mentioned Clause	As per tender conditions.
302	88.	Volume- 1, pg 24 ITT Cl. A 3.6.	Tenderers shall provide such evidence of their continued eligibility satisfactory to the Employer, as the Employer shall reasonably request.	We request Employer to delete the mentioned Clause	As per tender conditions.

Sl. No.	Bidder's S.No.	Reference Volume / Clause	Existing Clause	Queries	UPMRC's Reply
303	89.	Volume- 1, pg 25 ITT Cl. A 3.9.	Any Tenderer that is in one of the situations referred to in the above paragraph may provide evidence to the effect that measures taken by the Tenderer are sufficient to demonstrate its reliability despite the existence of a relevant ground for exclusion.	We request “above paragraph” to be replaced with “Clause A 3.9 or this clause”	As per tender conditions.
304	90.	Volume- 1, pg 27 ITT Cl. A3.11.	There are no restrictions on the country of origin of Plant, Materials, and services to be provided under the Contract but tenderer is encouraged to maximize the involvement of domestic sources. However, that is not mandatory and shall not have bearing on tender evaluation provided tenderer meets other requirement. However, all Plant, Materials and services shall be to the satisfaction of the Employer and Engineer. The information on all Plant, Materials and Services included in the Tenderers Proposals and incorporated into the Contract Document shall not, be construed as a submission to the Engineer under the Contract.	We request the terms “to the satisfaction of the Employer and Engineer” shall be replaced with “as per the Contract”	As per tender conditions.
305	91.	Volume- 1, Pg 28 ITT Cl. A4.4.1.	Employer requires that Tenderers and Contractors observe the highest standard of ethics during the procurement and execution of such contracts. In pursuance of this policy, Employer:	We request the terms “Highest standard of Ethics” are undefined and accordingly to be defined. The following shall be added at the end “shall after hearing the tenderer”	As per tender conditions.
306	92.	Volume- 1, pg 30 ITT Cl. A 4.6.3.	The Tenderer/Contractor grant the Employer, the Funding Agencies and auditors appointed by either of them, as well as any authority or European Union Institution or body having competence under European Union law, the right to inspect and copy the books and records of the tenderer, contractor, supplier or consultant.	We request the following to be added at the end “only in relation with the execution of this project and as per the Contract terms”	As per tender conditions.
307	93.	Volume- 1, pg 31 ITT Cl. A7.1	It shall be deemed that the Contractor has undertaken a visit to the Site of Works and is aware of the site conditions prior to the submission of the tender documents.	If any site or local conditions was not reasonably foreseeable/examinable/practicable for consideration by an experienced contractor before bid submission (taking account of cost of examination and time for bidding), then the Contractor shall be entitled to due extension of time and costs arising out of such conditions.	As per tender conditions.
308	94.	Volume- 1, pg 31 ITT Cl. 4.6.4.	If it is established to the required standards that a project-related party has engaged in Prohibited Conduct in the course of a procurement process or implementation of a contract to be financed, the Funding Agency:	We request the following “and after hearing the Tenderer/Contractor” shall be added next to the word “standards”	As per tender conditions.
309	95.	Volume- 1, pg 33 ITT Cl. B 2.3.	The accuracy or reliability of the documents and reports referred to in this Clause B2 and of any other information supplied, prepared or commissioned at any time by the Employer or others in connection with the Contract is not warranted. The Tenderer's attention is drawn to sub-clauses 4.9 and 4.10 of GCC in this regard. The Tenderer should visit, examine and assess the Site including working conditions and will be deemed to have satisfied himself of the risks and obligations under the Contract	Since Tenderer prepares tender based on the reports disclosed by the Employer, this clause defeats the reliability of such reports. Accordingly, to be amended as follows, “The accuracy or reliability of the documents and reports referred to in this Clause B2 and of any other information supplied, prepared or commissioned at any time by the Employer or others in connection with the Contract is reliable and suitable extension of time and/or compensation shall be made to the Contractor if the reports disclosed found to be erroneous.”	As per Tender conditions

Sl. No.	Bidder's S.No.	Reference Volume / Clause	Existing Clause	Queries	UPMRC's Reply
310	96.	Volume- 1, pg 34 ITT Cl. B 4.1.	In case of delay beyond the last date of issuing addendum given in NIT, the date of submission, at its sole discretion may be extended by Employer under Clause D2 of ITT.	We request this clause to be amended as follows, "In case if the addendum is issued near the tender submission due date, then the Employer shall, based on the request made by the Tenderers, extend the due date for tender submission."	Please refer Addendum-4 uploaded on CPP Portal.
311	97.	Volume- 1, pg 34 ITT Cl. B 4.2.	Save as aforesaid, all such amendments or clarifications shall not have contractual effect.	We request this portion of the mentioned clause to be deleted.	As per tender conditions.
312	98.	Volume- 1 pg 37 ITT Cl. C 2.4.	In case of failure by the Contractor to remit such amounts, the same shall be recovered from amounts due for payment to the Contractor.	We request this portion of the mentioned clause to be amended as "In case of failure by the Contractor to follow the process advised to remit such amounts, the same shall be recovered from amounts due for payment to the Contractor.	As per tender conditions.
313	99.	Volume- 1, pg 38 ITT Cl. C 6.2.	Only those aspects of the Contractor's Technical Proposal that the Employer (at his sole discretion) considers clearly conforming, will form part of the Contract.	We request this part of the mentioned Clause to be deleted.	As per tender conditions.
314	100.	Volume- 1, pg 40 ITT Cl. C 11.2	For sub-contracts exceeding Rs.5 million, it will be obligatory for the Contractor to obtain a Notice of No Objection from the Engineer to the identity of the subcontractor.	We request this part of the mentioned Clause to be deleted.	As per tender conditions.
315	101.	Volume- 1, pg 42 ITT Cl. C 17	The Tender shall be valid for a period of 180 days from the latest Date of Submission of Tenders. In exceptional circumstances, prior to expiry of the original tender validity period, the Employer may request that the Tenderers extend the period of validity for a specified additional period. The request and the responses thereto shall be made in writing or by e-mail. A Tenderer may refuse the request. A Tenderer agreeing to the request will not be required or permitted to modify his tender but will be required to extend the validity of his Tender for the additional period.	We request the following "not greater than 90 days from the expiry date of tender" to be added next to the words "additional period". The following "without forfeiting its tender security" to be added next to the words "A Tenderer may refuse the request"	As per tender conditions.
316	102.	Volume- 1, pg 46 ITT Cl E 1.5.	The Financial Package(s) which tenderer(s) have uploaded online will be opened on a subsequent date at least seven (7) days after the evaluation results of technical bids are published on eProcurement portal.	Next to the words "7 days" , We request the following to be added "and within 14 days" or proper timeline within which the package will be opened to be stated there.	As per tender conditions.
317	103.	Volume- 1, pg 48 ITT Cl E 4.3	If a tender is not substantially responsive to the requirements as stipulated in tender documents, it will be rejected by the Employer, and will not subsequently be permitted to be made responsive by the Tenderer by correction or withdrawal of the non conformity or infirmity. The financial proposal of such Tenderer shall be returned unopened.	We request this part of the mentioned Clause to be modified as. . If a tender is found by the Employer as not in accordance with the above stated requirement of responsive tender, it will be rejected by the Employer, and will not subsequently be permitted to be made responsive by the Tenderer by correction. The financial proposal of such Tenderer shall be returned unopened.	As per tender conditions.
318	104.	Volume- 1, pg 48 ITT Cl E 4.4 (a)	which contains unauthorized changes to the Memorandum of Understanding from the Memorandum of Understanding accepted for Pre- qualification.	We seek clarification required to on what is the Memorandum of Understanding mentioned here.	As per tender conditions.
319	105.	Volume- 1, pg 49 ITT Cl. E 4.6.1	Unacceptable and unresponsive Tenders will be rejected	We seek clarification required to understand what constitutes an unacceptable tender.	As per tender conditions.
320	106.	Volume- 1, pg 49 ITT Cl E 4.9	The decision of the Employer as to which of the tenders are not substantially responsive in accordance to clause E4.3 shall be final.	We request, next to the word "Employer" the following to be added "after hearing the concerned tenderer"	As per tender conditions.

Sl. No.	Bidder's S.No.	Reference Volume / Clause	Existing Clause	Queries	UPMRC's Reply
321	107.	Volume- 1, pg 50 ITT Cl E 5.1.1	The Tenderer is to note that Financial Packages of only those tenderers whose submissions of Technical Package has satisfied the review in sub- paragraph E 4.6 will be opened. The list of qualified Tenderers whose Technical Packages have been found acceptable shall be uploaded on the website. There shall be a time gap of minimum 7 days between the notification of all tenderers as to the results of technical evaluation and the opening of the financial proposals. The financial proposal(s) will then be opened online through e-procurement portal.	We request, next to the words "7 days" the following to be added "and within 14 days" or any such concrete period of time to be stated here.	As per tender conditions.
322	108.	Volume- 1, pg 52 ITT Cl F 2.1	The Employer is not bound to accept the lowest or any tender and may at any time by notice in writing to the Tenderers terminate the tendering process. In case of termination, all tenders submitted and specifically, tender securities, shall be promptly returned to the Tenderers	We request this clause to be deleted	As per tender conditions.
323	109.	Volume- 1, pg 53 ITT Cl F 3.3.	Upon "Letter of acceptance" being signed and returned by the successful Tenderer as per Clause F3.1, the employer will discharge / return tender securities and unopened financial packages of the unsuccessful Tenderers.	We request this clause to be amended as follows, "Within 3 days of declaration of successful tenderer, the employer shall discharge / return tender securities and unopened financial packages of the unsuccessful Tenderers"	As per tender conditions.
324	110.	Volume- 1 pg 93 Form of Tender	Form of Tender: 5. We understand that you are not bound to accept the lowest or any tender you may receive.	We request this clause from the form to be deleted.	As per tender conditions.
325	111.	Volume- 1 pg 51 ITT Cl. E5.2.2	If a Tenderer does not accept the correction of errors as outlined above, his tender will be rejected, and the tender security shall be forfeited.	We request this clause to be deleted	As per tender conditions.
326	112.	Volume- 1 pg 79 ITT ANNEXURE-7 Cl.4(b)	if the Tenderer does not accept the correction of his tender price in terms of Clause E5.2 of the "Instructions to Tenderers".	We request this clause to be deleted	As per tender conditions.
327	113.	Volume- 1, pg 81 ITT ANNEXURE-8 ; Cl 7	. At any time during the period in which this Guarantee is still valid, if the Employer agrees to grant a time extension to the Contractor or if the Contractor fails to complete the Works within the time of completion as stated in the Contract, or fails to discharge himself of the liability or damages or debts as stated under Para 5, above, it is understood that the Bank will extend this Guarantee under the same conditions for the required time on demand by the Employer and at the cost of the Contractor.	We request this clause of the Annexure to be deleted	As per tender conditions.
328	114.	Volume- 1, 83 ITT, ANNEXURE-8A ;	ANNEXURE-8A ; We agree that the Guarantee herein contained shall be irrevocable and shall continue to be enforceable till the Employer discharges this guarantee.	We request this portion of third Paragraph of the Annexure to be modified as: We agree that the Guarantee herein contained shall be irrevocable.	As per tender conditions.
329	115.	Volume- 1, pg 96 Form of Tender	FORM OF TENDER – APPENDIX-1. Sr. No. 1. In the event of variations during the execution of the contract which result in payments to the Contractor over and above the contract price, the Performance Security shall be suitably adjusted.	We request this part of the mentioned provision to be deleted.	As per tender conditions.

Sl. No.	Bidder's S.No.	Reference Volume / Clause	Existing Clause	Queries	UPMRC's Reply
330	116.	Volume- 2, Pg 7 GCC 1.1.2.11	"Sub-contractor" means any person named in the Contract as a subcontractor, manufacturer or supplier for a part of the Works or any person to whom a part of the Works has been sub-contracted with the consent of the Employer and the legal successors in title to such person, but not any assignee of such person.	We request the following to be deleted from the mentioned clause, "with the consent of the Employer and the legal successors in title to such person"	As per tender conditions.
331	117.	Volume- 2, Pg 7 GCC 1.1.3.1	"Commencement Date" means the date on which the Contractor shall commence the Works on the written instructions of the Employer contained in the Notice to Proceed.	Please confirm that unhindered access to Site and approvals for the Project will be on place on the date of issuance of LOA or date of signing of the Contract Agreement whichever is earlier. If there is delay in handing over the Site or obtaining the required approvals by the Employer, the Contractor will be entitled to Extension of Time and additional payment.	As per Tender conditions
332	118.	Volume- 2, Pg 12 GCC 2.2	The Employer shall grant the Contractor right of access to, and / or possession of, the Site progressively for the completion of Works	We seek unhindered access to the Site and approvals for the Project will be on place on the date of issuance of LOA or date of signing of the Contract Agreement whichever is earlier.	As per Tender conditions
333	119.	Volume- 2, Pg 12 GCC 2.2	If the Contractor suffers delay from failure on the part of the Employer to grant right of access to, or possession of the Site, the Contractor shall give notice to the Engineer in a period of 28 days of such occurrence. After receipt of such notice the Engineer shall proceed to determine any extension of time to which the Contractor is entitled and shall notify the Contractor accordingly.	We request this portion of the clause to be modified as below: If there is a delay in grant of access to and possession of site to the Contractor, the Contractor shall be entitled for extension of time under the Contract.	As per tender conditions.
334	120.	Volume- 2, Pg 13 GCC 2.2	For any such delay in handing over of site, Contractors will be entitled to only reasonable extension of time and no monetary claims whatsoever shall be paid or entertained on this account.	We request, the phrases "no monetary claims whatsoever shall be paid or entertained on this account" to be replaced with "monetary claims shall be paid in actuals which the Contractor might incur on account of such delay"	As per tender conditions.
335	121.	Volume- 2, Pg 2.3 GCC 2.3	It shall be Contractor's exclusive responsibility to get approvals, permits or license required for the Contract. However, the Employer shall (where he is in a position to do so) provide reasonable assistance to Contractor at the request and cost of the Contractor in getting Permits, License or Approvals required during the Contract.	We seek clarity on the approvals, permits or license required for the Contract.	As per tender conditions.
336	122.	Volume- 2, Pg 2.3 GCC 2.3	The rendering of such assistance by the Employer shall not be interpreted as a pretext by the Contractor as condoning of any delay or non performance of any of the Contractors obligations. The following-up of all such applications shall be the responsibility of the Contractor.	We request this part of the mentioned clause to be deleted.	As per tender conditions.
337	123.	Volume- 2, Pg 14 GCC 3.4	The Engineer shall not, however, be bound to issue any instruction which, in his opinion, is unnecessary.	We request this part of the mentioned clause to be deleted.	As per tender conditions.
338	124.	Volume- 2, Pg 15 GCC 4.1	The Works shall include any work which is necessary to satisfy the Employer's Requirements, the Contractor's Proposal and Schedules, or is implied by the Contract, or arises from any obligation of the Contractor, and all works not mentioned in the Contract but which may be inferred to be necessary for stability, or completion, or the safe, reliable and efficient operation of the Works.	We request the following to be added at the end "and the cost for such works shall be considered and paid as additional cost under the Contract"	As per tender conditions.

Sl. No.	Bidder's S.No.	Reference Volume / Clause	Existing Clause	Queries	UPMRC's Reply
339	125.	Volume- 2, Pg 15 GCC 4.1	The Contractor shall take full responsibility for the adequacy, stability and safety of all Site operations, of all methods of construction, manufacture, and of all the Works, irrespective of any approval or consent by the Engineer.	We request employer to clarify the liability of the Contractor in case the Engineer alters the Contractor submissions.	As per tender conditions.
340	126.	Volume- 2, Pg 16 GCC 4.1	The Contractor shall whenever be required by the Engineer, submit details of the arrangement and methods which the Contractor proposed to adopt for the execution of the Works. No alteration to these arrangements or methods shall be made without the approval of the Engineer.	We request the phrases “whenever required by the Engineer” to be replaced with “at such period of time fixed mutually”	As per tender conditions.
341	127.	Volume- 2, Pg 18 GCC 4.3	Failure on part of the Contractor to comply with these provisions shall constitute a breach of Contract leading to action under Sub-Clause 13.2	We request this part of the mentioned Clause to be deleted.	As per tender conditions.
342	128.	Volume- 2, pg 20 GCC 4.4 (g)	If the Contractor shall suffer delay by reason of failure by any Designated Contractor to meet the specified installation interfacing and co-ordination, completion dates, which delay shall be caused otherwise than by fault of the Contractor, or, if compliance with sub-clause (f) herein shall involve the Contractor in delay beyond that which could be reasonably foreseen by an experienced contractor at the time of tender, then the Engineer shall take such delay into account in determining any extension of time to which the Contractor is entitled under the Contract.	We request the following to be added at the end “along with the payment for cost incurred by the Contractor”	As per tender conditions.
343	129.	Volume- 2, Pg 21 GCC 4.4	Cl 4.4 If any act or omission of the Contractor whether directly or indirectly results in the delay in the execution of the works of a Designated Contractor, the Contractor, in addition to his liability in respect of liquidated damages if they become due, shall pay to the Employer, or the Engineer may deduct from Interim Payment Certificates such amount as the Engineer shall have certified in respect of additional payments or costs to the Designated Contractor in respect of such delay, subject to the ceiling limit specified in Clause 8.5.	We request the following to be added at the end “provided that the Contractor was served with adequate opportunity to present its side”.	As per tender conditions.
344	130.	Volume- 2, Pg 21 GCC 4.5.2 (b)	The prior consent of the Engineer shall be obtained for other proposed Sub-contractors;	We request this part of the mentioned Clause to be deleted.	As per tender conditions.
345	131.	Volume- 2, Pg 21 GCC 4.5.4	The contractor shall ensure that their sub contractors, material/equipment suppliers, consultants and other agencies deployed by them in connection with execution of the contract do not make any claim or raise any dispute before UPMRC. For this, necessary provision is to be made in the agreement between contractor and their sub contractors/consultants/other agencies. Similarly the agreement should also incorporate the provision of dispute resolution.	We seek deletion of this sub-clause.	As per tender conditions.
346	132.	Volume- 2, Pg 23 GCC 4.8.2	If at any time during the execution of the Work, an error appears in the positions, levels, dimensions or alignment of any part of the Works, the Contractor on being required to do so by the Engineer shall, at Contractor’s cost, rectify such error to the satisfaction of the Engineer.	We request employer to delete the phrase “the satisfaction of the Engineer”.	As per tender conditions.

Sl. No.	Bidder's S.No.	Reference Volume / Clause	Existing Clause	Queries	UPMRC's Reply
347	133.	Volume- 2, Pg 23 GCC 4.9	The accuracy or reliability of the data/studies/reports and of any other information supplied at any time by the Employer or Engineer is not warranted with respect to the viability of his design and execution of Works and the Contractor shall be responsible for interpreting all such data. The Contractor shall conduct further investigations considered necessary by him at his own cost and any error, discrepancies if found in Employer's data at any stage will not constitute ground for any claim for extra time and costs.	We request employer to delete this clause	As per tender conditions.
348	134.	Volume- 2, Pg 23 GCC 4.23	The decision of the Engineer as to the additional cost shall be final and binding.	We request, this part of the mentioned Clause to be deleted.	As per tender conditions.
349	135.	Volume- 2, Pg 28 GCC 4.26	All expenses on such removal / clearance shall be debitable to the Contractor as loans due from the Contractor to the Employer, and the Employer shall be competent to recover the same from Contractor's onaccount or final bills, or from Performance Security amount or from any other amount payable to the Contractor in any other Contract.	We request, this part of the mentioned Clause to be deleted.	As per tender conditions.
350	136.	Volume- 2, Pg 29 GCC 4.31	If the Contractor or any partner of the Contractor or Director of the Contractor's company is closely related to any of the Officers of the Employer or the Engineer, or alternatively, if any close relative of an officer of the Employer or the Engineer has financial interest / stake in the Contractor's firm, the same shall be disclosed by the Contractor at the time of filing his tender. Any failure to disclose the interest involved, shall entitle the Employer to rescind the Contract, without payment of any compensation to the Contractor. The Contractor shall note that he is prohibited from developing such interest during the Contract period.	We request, this clause to be amended to remove Engineer from this clause, since Engineer is yet to be notified and without knowing the Engineer the Contractor cannot state the relationship if any exist at the time of tender filing.	As per tender conditions.
351	137.	Volume- 2, Pg 33 GCC 5.3.2 (b)	Payment of any such Cost-plus profit, which shall be included in the Contract Price.	We request, the phrase "included" to be replaced with "added"	As per tender conditions.
352	138.	Volume- 2, Pg 35 GCC 5.8	The Contractor shall indemnify the Employer and the Engineer from and against all claims and proceedings on account of infringement (or alleged infringement) of any patent rights, registered designs, copyright, design, trademark, trade name, know-how or other intellectual property rights in respect of the Works, Contractor's Equipment, machines, work method, or Plant, or Materials, or anything whatsoever required for the Works and from and against all claims, demands, proceedings, damages, costs, charges and expenses whatsoever in respect thereof or in relation thereto.	We request, the terms ", or anything whatsoever required for the Works" to be deleted from the mentioned clause.	As per tender conditions.
353	139.	Volume- 2, Pg 35 GCC 5.8	In the event of Contractor failing to act at Engineer's notice, the Employer shall be at full liberty to deduct any such amount of pending claim from any amount due to the Contractor under this Contract or any other Contract.	We request, the phrases "or any other Contract" to be deleted from the mentioned clause.	As per tender conditions.

Sl. No.	Bidder's S.No.	Reference Volume / Clause	Existing Clause	Queries	UPMRC's Reply
354	140.	Volume- 2, pg 36 GCC 6.2	During the Contract Period no extra amount in this regard shall be payable to the Contractor, for whatsoever reason including any revision of rates payable to the labour due to revision of rates payable in Minimum Wages Act.	With due regards to the Labour Codes, 2020 which are to be implemented at any time, we request, this part of the mentioned clause to be deleted.	As per tender conditions.
355	141.	Volume- 2, Pg 39 GCC 6.10.1	The Contractor shall be responsible for preservation of peace and orderly conduct at the site and its neighbourhood by Contractor's employees, Representatives, petty contractors, Sub Contractors etc. In case, deployment of a Special Police Force, becomes necessary at or near Site, during the tenure of Works, the expenses for the same shall be borne by the Contractor.	We request, the following to be added at the end "provided that the circumstance for deployment of such special police force aroused due to an act of the Contractor"	As per tender conditions.
356	142.	Volume- 2, Pg 41 GCC 7.6(ii)	If the Engineer requires such Plant, goods, Material, design or workmanship to be retested, the tests shall be repeated under the same terms and conditions. If such rejection and retesting cause the Employer to incur additional costs, such costs shall be recoverable from the Contractor by the Employer and may be deducted by the Employer from any sum due, or to become due, to the Contractor.	We request, the following to be added at the end "Notwithstanding the above, if the result of the Re-test discloses the same result as in the previous test, then the cost incurred for Re-test shall be to the account of the Employer and the same shall be paid to the Contractor by Employer"	As per tender conditions.
357	143.	Volume- 2, Pg 42 GCC 7.6 (iv)	In case of default on the part of the Contractor in carrying out such order, the Employer shall be entitled to employ and pay other parties, to carry out the same, and all expenses consequent thereof or incidential thereto, shall be recoverable from the Contractor or may be deducted by the Employer from any sum which may be due to the Contractor..	Next to the phrases "such order" we request the following to be inserted "within 14 days of notice"	As per tender conditions.
358	144.	Volume- 2, pg 44 GCC 7.11.5 (b)	payment of any such Cost plus profit, which shall be included in the Contract Price.	We request, the term "included" to be replaced with "added"	As per tender conditions.
359	145.	Volume- 2, pg 46 GCC 8.3	Failure or delay by the Employer or the Engineer, to hand over to the Contractor the Site necessary for execution of Works, or any part of the Works, or to give necessary notice to commence the Works, or to provide necessary Drawings or instructions or clarifications or to supply any material, plant or machinery, which under the Contract, is the responsibility of the Employer, shall in no way affect or vitiate the Contract or alter the character thereof; or entitle the Contractor to damages or compensation thereof but in any such case, the Engineer shall extend the time period for the completion of the Contract, as in his opinion is / are reasonable. However, If the Engineer's instruction on commencement of Works is not received by the Contractor within 180 days from his receipt of the Letter of Acceptance, the Contractor shall be entitled to terminate the Contract	We request, the following portions of the mentioned clause to be modified as "and entitle the Contractor to claims damages or compensation thereof"	As per tender conditions.
360	146.	Volume- 2, Pg 47 GCC 8.4.2	Any extension to a Key Date shall not by itself entitle the Contractor to an extension to any other Key Date.	We request, the following to be added at the end "provided the extended key date is independent and not indispensable to other key date"	As per tender conditions.

Sl. No.	Bidder's S.No.	Reference Volume / Clause	Existing Clause	Queries	UPMRC's Reply
361	147.	Volume- 2, Pg 50 GCC 8.9	After receipt of permission or of an instruction to proceed, the Contractor shall, after notice to the Engineer, and together with the Engineer, examine the Works, Plant, Rolling Stock and Materials affected by the suspension. The Contractor shall make good any deterioration or defect in or loss of the Works, Plant, Rolling Stock and Materials, which has occurred during the suspension.	We request, the following to be added at the end "the cost incurred thereof shall be on the account of Employer"	As per tender conditions.
362	148.	Volume- 2, pg 50 GCC 9.1	Taking Over Certificate	We request to add the below as sub clause (c): "If the Engineer deviates from these provisions or fails to give any communications after notice from Contractor, it shall be deemed that the Works are taken over by the Employer and it will be a deemed Taking Over."	As per tender conditions.
363	149.	Volume- 2, pg 53 GCC 11.1.2	ii) In case of Contractor's failure in availing the exemptions as stipulated above, the recovery of equivalent amount will be made from Contractor's dues.	We request, the following to be added at the end "Notwithstanding the above, Contractor shall not be liable for not getting the reimbursement provided the Contractorhas followed the Employer's procedure diligently"	As per tender conditions.
364	150.	Volume- 2, Pg 55 GCC 11.2.5	Should there be delay in the progress and completion of work, as a result of which it is not possible to recover the advance and interest thereon, before the date of completion stipulated in the Contract, then the interest to be charged from the Contractor on the remaining portion of the advance beyond the original completion date specified in the Contract, shall be the State Bank of India prime lending Rate plus 2% per annum or 10% per annum whichever is higher.	We request to add the following in the end "This clause shall be applicable only when such delay is caused due to Contractor's default"	As per tender conditions.
365	151.	Volume- 2, pg 60 GCC 11.17	ii) And further, unless the Contractor pays and clears immediately on demand any claim of the Employer, the Employer shall at all times be entitled to deduct the amount of the said claim from the moneys, securities and / or deposits which may have become or will become payable to the Contractor under these presents, or under any other Contract or transaction whatsoever between the Employer and the Contractor even if the matter stands referred to Arbitration. The Contractor shall have no claim for any interest or damage whatsoever in respect of any amounts withheld or treated as withheld under the lien referred to above and duly notified as such to the Contractor.	We request employer to delete the mentioned clause	As per tender conditions.
366	152.	Volume- 2, pg 61 GCC 11.20	All damages (including, without limitation, liquidated damages), costs, charges, expenses, debts, or sums for which the Contractor is liable to the Employer under any provision of the Contract may be deducted by the Employer from monies due to the Contractor under the Contract (including, without limitation, liquidated damages) and the Employer shall have the power to recover any balance not so deducted from monies due to the Contractor under any other contract between the Employer and the Contractor.	We request, the following to be deleted from the mentioned clause "and the Employer shall have the power to recover any balance not so deducted from monies due to the Contractor under any other contract between the Employer and the Contractor"	As per tender conditions.

Sl. No.	Bidder's S.No.	Reference Volume / Clause	Existing Clause	Queries	UPMRC's Reply
367	153.	Volume- 2, pg 61 GCC 12.2.1	The Contractor shall provide his variation proposal in a time limit prescribed by the Engineer. The Engineer's decision in this regard shall be communicated to the Contractor within a reasonable period of time. If by any reason the time limit specified by the Engineer is exceeded, the proposal may not be considered. The decision of the Engineer in this regard shall be final and binding	We request, the following to be added at the end "However such decision shall not be unreasonably withheld/delayed"	As per tender conditions.
368	154.	Volume- 2, Pg 62 GCC 12.2.3	The Employer may in his sole discretion, accept or reject the contractor's variation or any part thereof and determine the estimated net saving in the construction cost. The Employer shall not be liable for delays or damages to the Contractor due to any failure of the Employer to accept or act upon any such variation proposal submitted pursuant to this Clause.	We request, the following to be deleted from the mentioned clause "The Employer shall not be liable for delays or damages to the Contractor due to any failure of the Employer to accept or act upon any such variation proposal submitted pursuant to this Clause"	As per tender conditions.
369	155.	Volume- 2, Pg 63 GCC 12.2.5	The Contractor shall either accept or reject any proposed amendment executed by the Engineer pursuant to this section within 5 working days of its receipt date from the Employer.	We request, the phrase "5" to be replaced with "14"	As per tender conditions.
370	156.	Volume- 2, Pg 65 GCC 13.1	If the Contractor fails to carry out any of his obligations, or if the Contractor is not executing the Works in accordance with the Contract, the Engineer may give notice to the Contractor requiring him to make good such failure and remedy the same within such time as the Employer / Engineer may deem to be reasonable.	We request, the terms "and sufficient for the Contractor" to be added at the end.	As per tender conditions.
371	157.	Volume- 2, Pg 65 GCC 13.2.1(g)	fails to adhere to the agreed programme of work by margin of 10% of the stipulated period or 21 days, whichever is earlier, or fails to complete the Works or parts of the Works within the stipulated or extended period of completion, or is unlikely to complete the whole Work or part thereof within time because of poor record of progress; or	We request, the following to be added in the beginning "In all the mentioned cases without reasonable excuse"	As per tender conditions.
372	158.	Volume- 2, Pg 67 GCC 13.2.10	Provided always that in case any of the powers conferred upon the Employer by Sub-clause 13.1 and Sub-clause 13.2.1 above, shall have become exercisable, and the same may not have been exrcised, the non-exercise thereof shall not constitute waiver of any of the conditions thereof.	We request the following clause to be deleted	As per tender conditions.
373	159.	Volume- 2, Pg 67 GCC 13.3.1	The Engineer's decision on the amount payable on this account shall be final and binding	We request, this part of the mentioned clause to be deleted.	As per tender conditions.
374	160.	Volume- 2, pg 69 GCC 14.1	All sums payable by way of compensation under these conditions shall be considered reasonable compensation payable to the Employer, without reference to the actual loss or damage sustained, and whether or not any damage shall have been sustained. The decision of the Engineer as to compensation claimed shall be final and binding	We request, this part of the mentioned clause to be deleted.	As per tender conditions.
375	161.	Volume- 2, Pg 71 GCC 14.4 (b)	amount of such cost, which shall be included in the Contract Price.	We request, the term "included" to be replaced with "added"	As per tender conditions.

Sl. No.	Bidder's S.No.	Reference Volume / Clause	Existing Clause	Queries	UPMRC's Reply
376	162.	Volume- 2, Pg 71 GCC 14.6	Except as provided otherwise in these Conditions, neither party shall be liable to the other party for loss of use of any Works, loss of profit, loss of any Contract or any other indirect or consequential loss or damage which may be suffered by the other party in connection with the Contract. The total liability of the Contractor to the Employer under the Contract shall not exceed the Contract Price. Except that this Sub- Clause shall not limit the liability of the Contractor: (a) under Sub-Clauses 4.18, 4.19, 8.6, 7.10 and 7.11 (b) under any other provisions of the Contract which expressly impose a greater liability, (c) in cases of fraud, wilful misconduct or illegal or unlawful acts, or (d) in cases of acts or omissions of the Contractor which are contrary to the most elementary rules of diligence which a conscientious Contractor would have followed in similar circumstances.	We request, the sub-clause (a) (b) & (d) to be deleted from the mentioned Clause.	As per tender conditions.
377	163.	Volume- 2, Pg 73 GCC 15.5	If the contractor fails to effect and keep in force any of the insurances required under the contract, or fails to provide satisfactory evidence, policies and receipts in accordance with this sub-clause, the employer may, without prejudice to any other right or remedy, effect insurance for the coverage relevant to such default, and pay the premiums due. In such cases the premium paid by the employer plus overheads (equal to 50% of the premium paid) shall be recoverable from the contractor by the employer and may be deducted by the employer from any monies due, or to become due, to the contractor or recover the same as debt due from the contractor. The contractor shall not dispute the amount of premium paid by the employer or the overhead charges thereon.	We request, the following to be added at the end “Provided the Contractor was served with a Notice and asked for its explanation before exercising the action thereof”	As per tender conditions.
378	164.	Volume- 2, pg 74 GCC 16.1	Definition of Force Majeure	We request to include the following in the definition of Force majeure “Epidemic, Pandemic, Lockdown enforced, Travel Restrictions, any Act of Government and/or any local or central authorities/department of Govt., Cyclone, Volcanic eruption, Natural disasters.”	As per tender conditions.
379	165.	Volume- 2, 74 GCC 16.2	Neither the Employer nor the Contractor shall be considered in default or in contractual breach to the extent that performance of obligations is prevented by a Force Majeure event which arises after the date of Notice to Proceed Upon the occurrence of such Force Majeure, the affected party shall endeavour to continue to perform its obligations as far as reasonably practicable.	We request, the following to be deleted from the mentioned clause “which arises after the date of Notice to Proceed”	As per tender conditions.
380	166.	Volume- 2, Pg 77 GCC 17.5	Disputes shall be settled through two stages: a. Conciliation procedures as established by “The Arbitration and Conciliation Act-1996” (as amended from time to time) and in accordance with this Clause. In the event this procedure fails to resolve the Dispute then;	In order to expedite the dispute resolution process, it is preferable to directly invoke Arbitration. Thus, we request employer has to delete this part of the mentioned clause.	As per tender conditions.

Sl. No.	Bidder's S.No.	Reference Volume / Clause	Existing Clause	Queries	UPMRC's Reply
381	167.	Volume- 2, Pg 77 GCC 17.6, 17.7, 17.8	Cl 17.6, 17.7, 17.8	In order to expedite the dispute resolution process, it is preferable to directly invoke Arbitration. Thus, we request employer has to delete the mentioned clauses.	As per tender conditions.
382	168.	Volume- 2, Pg 79 GCC 17.9.1	Further, it is agreed between the parties as under: Number of Arbitrators: The arbitral tribunal shall consist of: (i) Sole Arbitrator in cases where the total value of all claims in question added together does not exceed Rs. 2.00 crores; (ii) 3 (Three) arbitrators in all other cases.	The phrases "(i) Sole Arbitrator in cases where the total value of all claims in question added together does not exceed Rs. 2.00 crores;" and We request "other" to be deleted.	As per tender conditions.
383	169.	Volume- 2, Pg 80 GCC 17.9.2 (i)	In case of Sole Arbitrator: Within 60 days from the day when a written and valid demand for arbitration is received by MD/UPMRC, the Employer will forward a panel of 03 names to the Contractor. The Contractor shall have to choose one Arbitrator from the panel of three, to be appointed as Sole Arbitrator within 30 days of dispatch of the request by the Employer. In case the Contractor fails to choose one Arbitrator within 30 days of dispatch of the request of the Employer then MD/UPMRC shall appoint anyone Arbitrator from the panel of 03 Arbitrator as sole Arbitrator.	We request this Clause to be deleted.	As per tender conditions.
384	170.	Volume- 2, Pg 80 GCC 17.9.2 (ii)	Sub- Clauses (a), (b), (c), (d), (e).	Considering the arbitration proceedings for domestic bidder shall be as per the Indian Arbitration & Conciliation Act, 1996 as may be amended from time to time, we seek to include a condition that the number of arbitrator(s) constituting the tribunal shall be 3 and the appointment procedure shall be that each party shall without reference to the panel maintained by the Employer, appoint one arbitrator and the two appointed arbitrators shall appoint the third presiding arbitrator, with mutual consent. In the event of failure to appoint the arbitrator by a Party or failure of two appointed arbitrator to appoint third and presiding arbitrator, the arbitrator shall be appointed as per the provisions of the aforesaid Act.	As per tender conditions.
385	171.	Volume- 2, Pg 81 GCC 17.9.3	Cl 17.9.3	We request, the mentioned clause to be deleted.	As per tender conditions.
386	172.	Volume- 2, Pg 81 GCC 17.9.4	No new claim shall be added during proceedings by either party. However, a party may amend or supplement the original claim or defence thereof during the course of arbitration proceedings subject to acceptance by Tribunal having due regard to the delay in making it.	We request, the mentioned clause to be deleted.	As per tender conditions.
387	173.	Volume- 2, pg 81 GCC 17.9.6	It is agreed by both the Parties that in the cases where Arbitral Tribunal is consist of sole Arbitrator, their disputes shall be resolved by fast track procedure specified in sub-section (3) of 298 of the Arbitration and Conciliation (Amendment) Act, 2015 or as amended up to date.	Since Clause 17.9.1 (i) is requested for deletion, we request, this mentioned clause to be deleted.	As per tender conditions.
388	174.	Volume- 2, pg 82 GCC 17.10	Where the arbitral award is for the payment of money, no interest shall be payable on whole or any part of the money for any period, till the date on which the award is made.	We request, the following to be added at the end "Unless the tribunal awards otherwise"	As per tender conditions.

Sl. No.	Bidder's S.No.	Reference Volume / Clause	Existing Clause	Queries	UPMRC's Reply
389	175.	Volume- 2, pg 83 GCC 18.2	All notices to the Employer or Engineer shall be served by post or telex or telefax, or by delivering by hand to the address nominated for the purpose.	We request, the following to be added at the end “In case of notices delivered by post, they will be deemed to have been delivered after 7 days of dispatch.”	As per tender conditions.
390	176.	Volume- 2 SCC 5	For assigning the whole or any part of the contract or any benefit or interest in or under the contract by the Employer to a third party, the Employer will try to obtain the consent of the contractor. However, in case such consent is not submitted by the Contractor, the Employer at his sole discretion may assign the whole or any part to the third party without the consent of the Contractor.	We request, the following to be deleted from the mentioned Clause “However, in case such consent is not submitted by the Contractor, the Employer at his sole discretion may assign the whole or any part to the third party without the consent of the Contractor”	As per tender conditions.
391	177.	Volume- 2, Pg 86 SCC 9	Within 30 days from date of issue of the Letter of Acceptance, the successful Tenderer shall furnish Performance Security.	We request, the phrase “issue” to be replaced with “receipt”	As per tender conditions.
392	178.	Volume- 2, pg 87 SCC 9	In case the Contract value exceeds beyond 25% of the Original Contract Value, the Contractor shall have to submit additional Performance Security as follows:. (a) If variation amount on plus side exceeds 25% of the Original Contract Value either due to Employer's variation or due to Contractor's variation, the Contractor shall submit additional performance security equal to an amount of 3% of the variation amount exceeding 25% of the Original Contract Value. (b) No additional Performance Security will be required to be submitted if the variation amount on plus side is within 25% of the Original Contract Value.	We request, this part of the mentioned Clause to be deleted.	As per tender conditions.
393	179.	Volume- 2, pg 88 SCC 11	However, for major subcontracts (each costing over Rs Five million), it will be obligatory on the part of the Contractor to obtain consent of the Employer. The Employer will give his consent after assessing and satisfying himself of the capability, experience and equipment resources of the sub-contractor. In case the Employer intends to withhold his consent, he should inform the Contractor within 15 days to enable him to make alternative arrangements to fulfil his programme.	We request, this part of the mentioned Clause to be deleted.	As per tender conditions.
394	180.	Volume- 2, pg 88 SCC 11	Notwithstanding any consent to sub-contract given by the Engineer, if in his opinion it is considered necessary, the Engineer shall have full authority to order the removal of any sub-contractor from the Site or off-Site place of manufacture or storage.	Next to the phrase “to order” ..We request, the following to be inserted “with valid reasons”	As per tender conditions.

Sl. No.	Bidder's S.No.	Reference Volume / Clause	Existing Clause	Queries	UPMRC's Reply
395	181.	Volume- 2, pg 88 SCC 12	Clause 4.9 Site Data Following is added to Clause 4.9 of GCC: The Geotechnical and other related data provided by the Employer are based on the investigation conducted by employer and are for reference purposes only. The Tenderer should satisfy himself with the data furnished and make his own investigations if required for submitting his offer. Any change in design or construction methodology later during execution on account of change of Geotechnical Data will be the responsibility of the Contractor and no addition cost or time shall be allowed. The Contractor shall not be relieved from any risk or obligation imposed on or undertaken by him under the Contract on any such ground or on the ground that he did not or could not foresee any matter which may affect or have affected the execution of the Works, or compliance with his other obligations under the Contract	We request, this Clause to be deleted and GCC to prevail with changes suggested.	As per tender conditions.
396	182.	Volume- 2, pg 99 SCC 24	Taking Over Certificate Following is added in the last of Clause 9.1 of GCC If some part of work is not completed along with rest of the works in the contract and the Employer agreed for such splitting of work in writing, the Taking Over Certificate can be issued for that part of work which has been completed and accepted by the Employer. However, such splitting of work for issue of taking Over Certificate is sole discretion of the Employer and the contractor have no right what so ever.	We request, the following to be added at the end, "Contractor shall be relieved of his obligations with respect to such taken over part of work"	As per tender conditions.
397	183.	Volume- 2, pg 108 SCC 33	Conditions Leading to Termination of Contract In addition to the conditions stipulated in the GCC, following condition shall also make the Employer entitled to terminate the contract and added at (k): (i) If the Contractor fails to adhere to the agreed programme of work by margin of 10% of the stipulated period or 21 days, whichever is earlier, or fails to complete the Works or parts of the Works within the stipulated or extended period of completion or is unlikely to complete the whole Work or part thereof within time because of poor record of progress. (ii) In such a case, the Employer at its sole discretion may terminate only part of the contract also by taking out some part of the total scope of work and may complete or arrange for any other entity through the process of open/limited/single tender or by calling quotations, to do so at the risk and cost of the contractor.	We request employer to delete this condition.	As per tender conditions.
398	184.	Volume- 2, pg 109 SCC 37	Conciliation Procedure	We request employer to delete this clause	As per tender conditions.
399	185.	Volume- 2, 110 SCC 38	Clause 17.11 of GCC is replaced as under: As regard the fee of the arbitrator (s), the employer shall fix the fee from time to time which shall be payable to the arbitrators. Any other expenditure shall be as agreed by both the parties	We request, the mentioned clause to be replaced with the following "The Arbitrators Fee and all other similar expenditure shall be as agreed by both the Employer and the Contractor."	As per tender conditions.

Sl. No.	Bidder's S.No.	Reference Volume / Clause	Existing Clause	Queries	UPMRC's Reply
400	186.	Volume- 2, pg 55 GCC Cl 11.2.5	Interest in case of delay in repayment of advances Should there be any delay in progress and completion of work, as a result of which it is not possible to recover the advance and interest thereon, before the original date ofcompletion stipulated in the contract, then the interest to becharged from the contractor on the remaining portion of advance beyond the completion date specified in the contract, shall be 2% above State Bank of India prime lending Rate or 10% whichever is higher.	We request to add the following in the end "This clause shall be applicable only when such delay is caused due to Contractor's default"	As per tender conditions.
401	187.	Volume- 2, pg 107 SCC 31	Withholding and Lien for Sums Claimed In addition to the entitlement of the employer as per Clause 11.17 of GCC, the employer shall have lien over all or any money that may become due and payable to the Contractor under the Contract, and / or over the deposit of Performance Security or other amount or amounts made under the Contract and which may become payable to the contractor.	We request employer to delete this clause	As per tender conditions.
402	188.	Volume- 2/ SCC 37	Conciliation Procedure	We request employer to delete this clause	As per tender conditions.
403	189.	Volume 2, pg 27 GCC 4.19	The decision of the Engineer as to the amount recoverable from the Contractor on this account shall be final and binding	We request employer to delete this condition	As per tender conditions.
404	190.	Vol 2, Pg 38 GCC 6.4	The decision of Engineer with regard to the merits of imposition of penalty, determination of non- compliance and amount of penalty shall be final and binding on Contractor.	We request employer to delete this condition	As per tender conditions.
405	191.	Vol 2, Pg 43 GCC 7.10.2	The decision of the Engineer in this regard shall be final and binding on the Contractor	We request employer to delete this condition	As per tender conditions.
406	192.	Vol 2, pg 48 GCC 8.5	The decision of the Engineer as to the compensation payable by the Contractor under this Clause shall be final and binding	We request employer to delete this condition	As per tender conditions.
407	193.	Vol 2, pg 69 GCC 14.1	The decision of the Engineer as to compensation claimed shall be final and binding.	We request employer to delete this condition	As per tender conditions.
408	194.	Volume–7/ Bill of Quantities (BOQ)-Pricing Document, Pg no: 72 SCHEDULE– B ANNEXURE–B3	WATER SUPPLY & DRAINAGE WORKS (NON DSR ITEMS)	Since there are no pumps mentioned in the corresponding BOQ. Bidder understands that pumps related to water supply, sewage, seepage are not in the scope of this contract. Kindly confirm	Supply and Installation of pumps is beyond the scope of the contract. However, provision of foundation, headers etc. for installation of pump is within the scope of the contract. Supply and installations of pumps in borewell are covered under schedule A
409	195.	Volume–7/ Bill of Quantities (BOQ)-Pricing Document, Pg no: 89 Annexure – C 1.2	WATER SUPPLY & DRAINAGE WORKS (DSR ITEMS)	Since there are no pumps mentioned in the corresponding BOQ. Bidder understands that pumps related to water supply, sewage, seepage are not in the scope of this contract. Kindly confirm	Supply and Installation of pumps is beyond the scope of the contract. However, provision of foundation, headers etc. for installation of pump is within the scope of the contract. Supply and installations of pumps in borewell are covered under schedule A
410	196.	Volume–3/ Employer's Requirements/ Section–B/Functional Pg no:-18 Clause 2.1	SUPPLY & INSTALLATION OF THE EMBEDDED PIPES OF WATER, SEWAGE AND DRAINAGE WORKS AS PER REQUIREMENT.	Bidders understand that design and drawings will be provided by other contractor/ client for embedded pipes. If yes, kindly provide the BOQ for the same.	As per tender conditions.

Sl. No.	Bidder's S.No.	Reference Volume / Clause	Existing Clause	Queries	UPMRC's Reply
411	197.	11/Volume–3/Employer's Requirements/Appendices, Pg no:-74 EMPLOYER'S REQUIREMENTS APPENDIX 2D, INTERFACE WITH INDIVIDUAL CONTRACTORS, H. CIVIL WITH E & M,	CONSTRUCTION OF PLANT ROOMS, ANCILLARY BUILDING, CABLE DUCTS, SUMPS FOR SEEPAGE AND SEWAGE, PROVISION OF SLOPES IN SLABS AS PER DRAINAGE REQUIREMENTS ETC. SHALL BE THE RESPONSIBILITY OF CIVIL CONTRACTOR. CIVIL CONTRACTOR SHALL INTERFACE WITH E & M / OTHER DESIGNATED CONTRACTORS REGARDING THIS.	Since sump to be designed based on emergency condition. Kindly confirm the how many numbers of hydrants discharge to be consider for the sump design.	As per tender conditions.
412	198.	Volume–3/ Employer's Requirements/ Section–B/Functional Pg no:-23 Clause 2.2, b	Supply, Installation & Fixing of pipes for water, sewage & drainage works and its connection to drainage and sewage of civic authority as per approved plan.	Bidders understand that design and GFC drawings will be provided by other contractor/ client for water supply, sewage & drainage works. Kindly confirm the scope of this work.	As per tender conditions.
413	199	1. Clause No. 2.1 (14) Volume–3 Employer's Requirements Section–B Functional/ Page 20 2. Drawing Number: UPMRC-DESIGN-UG-ST-117 Volume-6 Tender Drawings	WATER SUPPLY & DRAINAGE WORKS (NON DSR ITEMS)	Bidder understands that design of power and clean earth mats is not in the scope of this contract. However, only supply, installation, functional testing, and handover of earth mat to be done by the contractor i.e., earth mat and from earth mat to risers above under croft level slab. Please confirm and provide scope demarcation w.r.t to this contract in the drawing.	As per tender conditions.
414	200	Volume–7 Bill of Quantities (BOQ)-Pricing Document Annexure to Schedule 'A' Schedule of On Account Payment Sub-Head: 2–A2-Construction of Underground Stations Page 5 Item No. 3	WATER SUPPLY & DRAINAGE WORKS (DSR ITEMS)	As contractors' scope for earth mat limits to supply and installation only, Bidder understands that Employer shall pay as per approved design drawing and documents during detailed design engineering stage provided by employer to the contractor. Please confirm.	As per tender conditions.
415	201	Volume-6 Tender Drawings Drawing Number: UPMRC-DESIGN-UG-ST-117	SUPPLY & INSTALLATION OF THE EMBEDDED PIPES OF WATER, SEWAGE AND DRAINAGE WORKS AS PER REQUIREMENT.	1. Provide the conductor size of earthing electrode and horizontal conductor of both the main & clean earth mats 2. Provide riser cable details of clean earth mat. 3. Please provide technical specification of earthing electrode, horizontal conductor, and risers cables. 4. Provide the distance of spacing between two conductors along breadth wise(10000mm) for both clean and main earth mats.	Please refer Annexure 16 of Addendum-05.
Bidder 7					
416	1	NIT, 1.4.2 A Page—7	Substantial completion shall be based on 80 (eighty) per cent (value wise) or more works completed under the contract as well as functional completion of the worn. Client Certificate for 'substantial completion' of project/worx/asset should contain two parts. Part -I shall contain 'financial value of work done' and part-II shall contain 'certificate of functional completion of project/work/asset'.	As this being a part of Pre qualification ,we request you to please clarify the definition of Functional completion of the work.	As per tender conditions.
417	2	NIT, 1.1.4.2 , Notes- B (v) Page-9	Bid Capacity: The tenderers wilt we qualified only if their available bid capacity is more than the approximate cost of work as per NIT. Available bid capacity will be calculated based on the following formula: Available Bid Capacity 1.5*A*N — B	Considering the ongoing boom in the construction industry, we request to increase the value of coefficient of bid capacity to atleast 2.5 or more as per Central govt dept like MoRTH/NHAI/NHIDCL. Please modify formula for Bid capacity = (A"N*2.5) - B.	As per tender conditions.

Sl. No.	Bidder's S.No.	Reference Volume / Clause	Existing Clause	Queries	UPMRC's Reply
418	3	-	Alignment & Architecture Drawings	Please provide Drawings in AutoCAD format.	AutoCad version of all drawing is being provided by email. However, in case of any discrepancy between soft copy and hard copy, hard copy attached with tender will prevail.
419	4	Rawatpur Station Architectural drawings -	Drawing No. KNPAGDDC-01-TDR-RWT-ARC-PLN-41252 & KNPACDDC-01-TDR-RWT-ARC-PLN-41254	Permanent columns are shown in L noercroft level plan, but are missing tn concourse level plan. Please confirm whether these columns can be taken upto roof slab level.	Please refer Annexure 16 of Addendum-05, Columns shall not be allowed in public area
420	5	Drawing No. KNPAGDDC-01-TDR-RWT-ARC-PLN-41252 -	Architectural drawing of Rawatpur Station	Please provide details of the exisling elevated viaduct/station including foundation near Rawatpur station. Also detail of existing entry of the elevated station is required.	Please refer Annexure 16 of Addendum-05.
421	6	Drawing No. KNPAGDDC-01-TDR-KKD-ARC PLN-42504 & KNPAGDDC 01-TDR-KKD-ARC-PLN-42502	Architectural drawing of Kakadeo Station	Permanat columns are shown in undercroft level plan, but are missing in concourse level plan. Please confirm whether these columns can be taken upto roof slab level.	Please refer Annexure 16 of Addendum-05.
422	7	Drawing No. KNPAGDDC-01-TDR-DPL-ARC PLN-43002 & KNPAGDDC 01-TDR-DPL-ARC-PLN-43004	Architectural drawing of Double Pulia Station	Some permanent columns have been shown in Undercroft level plan,but these columns are missing in concourse Level plan. Please confirm whether these columns can be raised upto roof slab level Also, at the bellmouth location span is large so at roof level columns are required. Please confirm whether columns can be provided in between roof and concourse level.	Please refer Annexure 16 of Addendum-05.
423	8	Volume 4. Page No. 23 - 1.5	Nominal Loads- Note tnat the loading due to Rolling Stock may be modified after the proposed rolling stock design has been finalized . The design vehicle is shown in Figure 1.5.1 .	No clear indication is given for the floor finish. In drawings is is shown as 50mm/12mm for platform Slab and 50mm/100mm for concourse/midlevel slabs. Please confirm tne actual finish load to be taken.	Please refer Annexure 16 of Addendum-05.
424		Volume 4, Page No. 23 - 1.5	nominal Loads- Note that the loading due to Rolling Stock may be modified after the proposed rolling stock design has been finalized. The design vehicle is shown in Figure 1.5.1.	No indication is given for the partition and Ceiling loads Please confirm the actual loading to be taken.	As per tender conditions.
425	10	Volume -4, Page No. 66 - CI 2.8.6	Crack Width- Clauses 2.2.3.4.1 of Part I and 3.2.4 of Part 2 of BS 8110 shall be modified such that for member face exposed to earth and ground water, the calculated maximum crack width shale not exceed 0.2 mm irresoective of whether any additional protections, such as waterproofing membrane, are provided to the members at the exposed face of the structure.	It is mentioned that the crack width shall be checked for minimum cover required for 120 years durability requirement from outermost rebar. Then there is a figure given showing Cmin for two way bending members to follow Cmin as shown for both X and Z-axis flexure. We understand that the crack width shall be checked for minimum cover sufficing 120 years durability criteria from the outermost rebar (including links) for both X-axis and Z-axis F\exure. Please confirm.	As per tender conditions.
426	11	Volume -4, Page No. 33 - 2.8.3	Minimum grade of concrete shall be M40	Please confirm if M40 is the mnimum grade for all the elements or grade of concrete as per durability requirement can be adopted.	As per tender conditions.
427	12	Volume -4, Page No. 65-66 -2.8.5	Guidance can be sought from CIRCA C660 -latest version on Early Age Thermal control of concrete in this matter.	CIRIA 660 nas been superseded by CIRIA C766. Please confirm which code to be followed for EAT checks.	Latest code can be follow for the EAT checks as per ODS.
428	13	Volume -4, Page No. 65-66 -2.8.10	Couplers shall be checked for 100mm cover [vertical tolerance +/- 50mm and cover in stab 45/50mm) including tolerance.	As per Clause 1.4.4.1 cover to internal slabs is 25mm. Please conform that couplers for these slabs will be designed for 75mm cover.	As per tender conditions.
429	14	Volume-4, Page No. 79 - 2.9.2	In general, Temporary Works shall be designed in accordance with the same design standards/principles as the Permanent Works.	Please specify load factor to be considered for Temporary Structures design in Cut & Cover structures.	As per tender conditions.

Sl. No.	Bidder's S.No.	Reference Volume / Clause	Existing Clause	Queries	UPMRC's Reply
430	15	Volume -4, Page No. 80 - 2.9.4	The maximum allowed calculated displacement for diaphragm wall in urban environment will be 35 mm corresponding to 25 mm vertical displacement at ground.	Please specify whether horizontal deflection in D-Wall can exceed 35mm if ground settlements & building damage assessment are within limit.	Not allowed.
431	16		General	Drawing "UPMRC-Design-UG-ST-120" is showing elevated metro (steel box girder) is crossing tunnel. Kindly inform chainage at which location it is passing. In alignment drawing it is not found anywhere.	Please refer Annexure 16 of Addendum-05.
432	17		General	Water table data is given for corridor 1 & corridor 2. Values are in very vast range. Kindly provide water table values for individual station design. In case water table lowest value needs to consider for all station design, Kindly confirm.	As per tender conditions.
433	18		General	Kindly confirm whether contractor can propose permanent intermediate columns in stations. Present grid span is very large.	As per tender conditions.
434	19		General	Grid locations in drawing "41251" is not matching with drawing "41252". Please provide correct drawings.	Please refer Annexure 16 of Addendum-05. drawings and Tender documents
435	20		General	Horizontal alignment shall be modified to suit the requirement of TBM operation and station construction and operation which may require additional work areas. Please confirm if such additional work areas to be provided.	As per tender conditions.
436	21		General	In drawing "43002" for Double pulia Station a utility galary is shown in plan between grid 09 & 10. kindly provide details (length,sction,height) of same for clarity.	As per tender conditions.
437	22		General	The SOD details are not available in bid document. Please provide the SOD.	As per tender conditions.
438	23		General	Kindly confimn walkway width. It is 600mm or 610mm.	Please refer Annexure 16 of Addendum-05.
439	24		General	Will soldier plie with lagging be allowed to be used as temporary retention structure for UG ramp and C&C box stretch, Please confirm.	As per tender conditions.
440	25		General	Please provide future planning of development of buildtngs over station zone so that Surcharge loading can be considered accordingly.	As per tender conditions.
441	26		General	Bidder requests for sharing the status of Statutory Clearance from various authorities (NGT, Environment, Utility, Electricity, BSNL etc.).	As per tender conditions.
442	27		General	Bidder observes, Tunnels are passing beneath a very densely populated multistorey building area. Bidder seeks clarification on- 1. Foundation details of those buildings 2. Whether evacuation of residence will be taken care by UPMRC during the Tunnelling works? 3. If the foundation of these buildings are encountered in Tunnelling process, what will be the remedy?	As per tender conditions.
443	28	Cut & cover and Elevated Ramp	Drawing No. KNPAGDDC-01-PRD-DP1-STR-DWG-93010	Extent & details of Cut & cover and elevated ramp along with extent of scope for main & depot line is not clear, Please provide drawings with clear details and scope.	Please refer Annexure 16 of Addendum-05.
Bidder 8					

Sl. No.	Bidder's S.No.	Reference Volume / Clause	Existing Clause	Queries	UPMRC's Reply
444	1	1.1.4.2 Minimum Eligibility Criteria:	* “Substantial” completion shall be based on 80 (eighty) per cent (value wise) or more works completed under the contract as well as functional completion of the work. Client Certificate for substantial completion’ of project/work/asset should contain two parts. Part -I shall contain ‘financial value of work done’ and part-II shall contain ‘certificate of functional completion of project/work/asset’	The Functional Completion terminology needs to be explained.	As per tender conditions.
445	2	Bid Submission date	05.04.2023	We need extension for around 4 weeks from the date of actual bid submission date.	Please refer to Addendum-4 uploaded on CPP Portal.
Bidder 9					
446	1	NIT Cl. 1.1.2	Contract Duration - 30 months	The project duration of 30 months is not enough for the scope of work as stipulated in the Employer's Requirement viz. tunneling by TBM, Cut&Cover, Ramps, Cross passages, Architectural finishing work incl. PEB works, 3 UG stations (1 no Off road and 2 nos - On Road), utilities shifting, etc. Therfore, it is requested to revise the duration from 30 months to **42 months and accordingly revise the Key Dates.** Please refer proposed Key dates Annexure-1.	As per tender conditions.
447	2	Employer's Requirement - Appendix 2B	KD-06 Start of initial drive TBM 1 - 37 weeks (8.5 months) KD-07 Start of initial drive TBM 2 - 43 weeks (9.9 months) KD-08 Completion of tunnel incl. Cross passages & 1st stage of track bed concrete - 70 weeks (16.1 months)	KD 06 & KD 07 - It is impossible for any TBM manufacturer to deliver the TBMs in such a short duration. They usually take minimum 12 months for the delivery of TBMs at EX work after the purchase order is placed. Delivery to EX work - 12 months Delivery to site - 1.5 months Assembly of TBM - 1.5 months Total months - **15.0 months** Keeping in view of the above, we have proposed revised Key dates in Annexure-1. Please accept the same.	Please refer Annexure 9 of Addendum-5.
448	3	Employer's Requirement - Appendix 2B	**KD-01 to KD-23:** 0.01% of the fixed lump sum price quoted in schedule ‘A’ per week of delay for the key date. **KD-25:** 0.01% of the fixed lump sum price quoted in schedule ‘D’ per week of delay for the key date **KD-24 & KD-26**: 0.01% of the fixed lump sum price quoted in schedule ‘A’ per week of delay for the key date relating to taking over on the completion of the entire works. Max. 10% of Schedule A (Value - 92.45 Crores)	It is requested to the Authority to include clause related to refunding of the liquidated damages to Contractor after achieving progress in the subsequent KDs.	Please refer Annexure 9 of Addendum-5.
449	4	Volume 7		As payment schedule are not in proportion with the actual work done, therfore we have proposed modified payment schedule as in Annexure-2. Please accept the same.	As per tender conditions.
450	5	Employer's Requirement Functional - Appendix 2A	The employer will provide the work areas of Approx. 6 hectare of land for casting yard for construction of segments for Tunnel construction & stacking Depot within 20 Km radius of work site.	Request to provide Casting yard area location from project site.	As per tender conditions.

Sl. No.	Bidder's S.No.	Reference Volume / Clause	Existing Clause	Queries	UPMRC's Reply
451	6		**Contract is silent on the Bonus for Early Completion.**	In order to motivate the Contarctor to complete the work early, it is requested to include bonus clause for completion of works including approved extension period **@ .083% per day maximum upto of 5% of CV**.	As per tender conditions.
452	7	Clause 4.11 of SCC Part-1	**Following is added to Clause 4.11 of GCC:** All operations for the execution of the Works shall be carried out so as not to interfere unnecessarily with the convenience of the public or the access to public or private roads or footpaths or properties owned by the Employer or by any other person. The Contractor shall select routes, choose and use vehicles so that movement of Contractor's Equipment, Plant and Materials from and to the Site is limited so that traffic is not delayed and damage to highways and bridges is prevented. If there is any delay or damage or injury, the cost of rectification or reconstruction of highways or bridges shall be borne by the Contractor. The Contractor shall indemnify the Employer in respect of all claims, demands, proceedings, damages, costs, charges and expenses whatsoever arising out of or in relation to any such matters.	In city area mostly alternate routes are not available and thus Contractor is bound to use public or private roads. The execution of works may cause inconvenience to public,delay in traffic and wear and tear to highway and bridges used in connection with execution of the project. **Request to kindly make suitable provision in the Contract for rectification of such works separately in order to avoid cost loading/extra cost to the Employer in Bid Price for such unforeseen items.**	As per tender conditions.
453			If during the execution of the Works the Contractor shall receive any claim arising out of the execution of the Works in respect of damage to highways or bridges, he shall immediately report the facts to the Engineer. The Contractor shall negotiate a settlement in respect of such claims and indemnify the Employer in respect of all claims, proceedings, damages, costs, charges and expenses in relation thereto.		As per tender conditions.
454	8	GCC Cluase 17.9.2	(i) In case of Sole Arbitrator: Within 60 days from the day when a written and valid demand for arbitration is received by MD/UPMRC, the Employer will forward a panel of 03 names to the Contractor. The Contractor shall have to choose one Arbitrator from the panel of three, to be appointed as Sole Arbitrator within 30 days of dispatch of the request by the Employer. In case the Contractor fails to choose one Arbitrator within 30 days of dispatch of the request of the Employer then MD/UPMRC shall appoint anyone Arbitrator from the panel of 03 Arbitrator as sole Arbitrator.	It is requested to amend the clause, the present cluase doesnot provide for autonomy and restrict the Contractor to freely choose any arbitrator from a broad based panel, Appointment of Arbitrators shall be from the borad based panel/SAROD empanelled list of Arbitrators	As per tender conditions.

Sl. No.	Bidder's S.No.	Reference Volume / Clause	Existing Clause	Queries	UPMRC's Reply
455	9		(ii) In case of 3 Arbitrators: a) Within 60 days from the day when a written and valid demand for Arbitration is received by MD/UPMRC, the Employer will forward a panel of 5 names to the Contractor. The Contractor will then give his consent for any one name out of the panel to be appointed as one of the Arbitrators within 30 days of dispatch of the request by the Employer. b) Employer will decide the second Arbitrator. MD/UPMRC shall appoint the two Arbitrators, including the name of one Arbitrator for whom consent was given by the Contractor, within 30 days from the receipt of the consent for one name of the Arbitrator from the Contractor. In case the Contractor fails to give his consent within 30 days of dispatch of the request of the Employer then MD/UPMRC shall nominate both the Arbitrators from the panel...		As per tender conditions.
456	10	Volume 6 - Tender Drawings		Please provide Depot line GAD separately indicating the start CH. Also request you define the scope related to Depot connection.	Please refer Annexure 16 of Addendum-05.
457	11	Volume 6 Tender Drawings GAD		We presume that the Contractor is free to plan launching or retrieval shaft within the project alignment. Please confirm.	As per tender conditions.
458	12	Tender Drawing GAD Ch. 3+310 Km	There are existing temples along the alignment at Ch. 3+000 km and at Ch. 3+310 Km	We presume that the permission for demolition of the temples and dismantling of mobile towers will be arranged by the Employer. Please confirm.	As tender conditions
459	13	Tender Drawing		The station box bell mouth portion at Ch. 2+050 km is very close to the existing buildings and shops, therefore request you to provide the foundation details of the existing buildings.	As per tender conditions.
460	14	Tender Drawing GAD	GAD alignment at Ch 0+200 - Ramp	As the alignment of the ramp passes in between the buildings therefore request you to provide details of that buildings.	As per tender conditions.
461	15	GCC Clause 2.3	It shall be Contractor's exclusive responsibility to get approvals, permits or license required for the Contract. However, the Employer shall (where he is in a position to do so) provide reasonable assistance to Contractor at the request and cost of the Contractor in getting Permits, License or Approvals required during the Contract.	We request Authority to obtain necessary permissions & approval from the Utility owning agencies and from private land owner well in advance so that Contractor can start the work as per the schedule programme.	As per tender conditions.
462	16	General		Request to you provide the status of land acquired by the Employer till date.	As per tender conditions.
463	17	General Alignment Drawing. Drawing No:UPMRC/KNPDD-01/KNPCC-11/GAD/Sheet 01 of 07 to Sheet 07 of 07	General Alignment Drawing. Drawing No:UPMRC/KNPDD-01/KNPCC-11/GAD/Sheet 01 of 07 to Sheet 07 of 07	Only Alignment UP Line GAD is provided in the Tender. Please provide GAD for DN Line for correct estimation for bidding.	Please refer Annexure 16 of Addendum-05.
464	18	General Alignment Drawing. Drawing No:UPMRC/KNPDD-01/KNPCC-11/GAD/Sheet 01 of 07 to Sheet 07 of 07	General Alignment Drawing. Drawing No:UPMRC/KNPDD-01/KNPCC-11/GAD/Sheet 01 of 07 to Sheet 07 of 07	Please provide the Acad Drawing of the Alignment	AutoCad version of all drawing is being provided by email. However, in case of any discrepancy between soft copy and hard copy, hard copy attached with tender will prevail.

Sl. No.	Bidder's S.No.	Reference Volume / Clause	Existing Clause	Queries	UPMRC's Reply
465	19	General Alignment Drawing. Drawing No:UPMRC/KNPDD-01/KNPCC-11/GAD/Sheet 01 of 07 to Sheet 07 of 07	General Alignment Drawing. Drawing No:UPMRC/KNPDD-01/KNPCC-11/GAD/Sheet 01 of 07 to Sheet 07 of 07	CP location may be shown in GAD along with Sump	As per tender conditions.
466	20	General Alignment Drawing. Drawing No:UPMRC/KNPDD-01/KNPCC-11/GAD/Sheet 01 of 07 to Sheet 07 of 07	General Alignment Drawing. Drawing No:UPMRC/KNPDD-01/KNPCC-11/GAD/Sheet 01 of 07 to Sheet 07 of 07	Fluctuation in ground level found From CH:1130 to CH:1150, please rectify or clarify the reason	Please refer Annexure 16 of Addendum-05.
467	21	General Alignment Drawing. Drawing No:UPMRC/KNPDD-01/KNPCC-11/GAD/Sheet 01 of 07 to Sheet 07 of 07	General Alignment Drawing. Drawing No:UPMRC/KNPDD-01/KNPCC-11/GAD/Sheet 01 of 07 to Sheet 07 of 07	As per the Scope of work SL No 36, alignment is passing below the existing viaduct of the corridor between Pier no 203 & C7 Rawatpur. This information is missing in the Alignment drawing. Please provide a separate drawing for this part with existing Pier Details(marking on plan, depth, dia etc)	Please refer Annexure 16 of Addendum-05.
468	22	General Alignment Drawing. Drawing No:UPMRC/KNPDD-01/KNPCC-11/GAD/Sheet 01 of 07 to Sheet 07 of 07	General Alignment Drawing. Drawing No:UPMRC/KNPDD-01/KNPCC-11/GAD/Sheet 01 of 07 to Sheet 07 of 07	Alignment is crossing the Indian Railway Live track at CH: 1170-1190, where the clear cover is close to 10m. The ground level mentioned in the Alignment drawing will be considered as ground level or railway track level, please clarify. One drain is also running along the railway track. Please provide the details of that also.	Please refer Annexure 16 of Addendum-05.
469	23	Utility Drawing. Drawing No:KNPDD-01-TDR-KNPCC-11/Utility/Sheet-01, Utility Drawing Rawatpur Station Area	Utility Drawing. Drawing No:KNPDD-01-TDR-KNPCC-11/Utility/Sheet-01, Utility Drawing Rawatpur Station Area	1800m dia GRP Feeder Main Water pipe Line crossing Tunnel Alignment at a depth of 2-3m. Depth mentioned it is top of the pipe or the bottom, please clarify	Please refer Annexure 16 of Addendum-05.
470	24	Utility Drawing. Drawing No:KNPDD-01-TDR-KNPCC-11/Utility/Sheet-02, Utility Drawing Kakadeo Station Area	Utility Drawing. Drawing No:KNPDD-01-TDR-KNPCC-11/Utility/Sheet-02, Utility Drawing Kakadeo Station Area	Sewer Line going along the Tunnel Alignment at a depth of 4-4.2m. Please provide dia of pipe.	The said sewer line will be treated as chartered utility.
471	25	2.9.4, Ground Movements	During the Preliminary Design phase, all existing structures that may be influenced by construction of the works shall be investigated to establish allowable settlement criteria for each structure or group of structures. Establishment of an appropriate zone of influence shall be accepted as 50m either side of the tunnel center-line or the base of the excavation plus a spread of 45° to the horizontal in areas where structures are located whichever is more. In Railway Station/ areas this zone shall be as agreed with Indian Railways for the safety of trains.	Please consider the influence zone as 30m from the tunnel centerline or 45° to the horizontal. We also request to share railway station/areas influence zone requirement at this stage for risk involvement along with cost estimation	Please refer the Tender Conditions.
472	26	Clause 2 - Scope of Works. Sub Clause 2.1.5	Any diversion/strengthening/protection works of the drain/nallah passing across the alignment	Please mention CH and details, if any, as we cannot find anything from the alignment GAD PDF.	AutoCad version of all drawing is being provided by email. However, in case of any discrepancy between soft copy and hard copy, hard copy attached with tender will prevail.
473	27	Clause 2 - Scope of Works. Sub Clause 2.1.2	Tunneling under existing railway tracks of IR - Works shall be executed in accordance with the approval and terms of condition laid by the India Railways	Please provide monitoring requirements along with settlement and transversal movement allowed on a railway track as per IR and tenure of monitoring at this stage as Tunnel Alignment is passing under the Railway Line	As per tender condition and requirements of Indian Railway.

Sl. No.	Bidder's S.No.	Reference Volume / Clause	Existing Clause	Queries	UPMRC's Reply
474	28	Utility Drawings	Utility Drawings	Please provide utility drawings of the Tunnel stretch or mention, if any, major utility or services above the tunnel drive	As per tender conditions
475	29	Utility Drawings	Utility Drawings	Please provide the acad version of the utility drawings	AutoCad version of all drawing is being provided by email. However, in case of any discrepancy between soft copy and hard copy, hard copy attached with tender will prevail.
476	30	2.7.3, Design Considerations	Instrumentation and monitoring to demonstrate performance of the installed linings.	Please Clarify, if any instrumented segment needs to install. If yes, then, please mention the area of requirement	As per design requirement.
477	31	Bored Tunnel- Dimension of twin bored tunnel 2 of 2, UPMRC-DESIGN-UG-ST-103, R0	Bored Tunnel- Dimension of twin bored tunnel 2 of 2, UPMRC-DESIGN-UG-ST-103, R0	Dimension shown 700mm for D1 (depth from rail level to invert of the circular tunnel, as per SOD), as per KNPCC06 SOD(as KNPCC11 SOD, not available) D1 is 630mm. Please Clarify	Plesae refer to addendum.
478	32	Cross Passage, UPMRC-DESIGN-UG-ST-105, Sheet 01 to 03, R0	Cross Passage, UPMRC-DESIGN-UG-ST-105, Sheet 01 to 03, R0	Dimension shown 2175mm from rail level to tunnel axis, as per KNPCC06 SOD(as KNPCC11 SOD, not available) D1=630mm, when R=2800, which makes this height 2170. This will also affect the TOR requirement. Please Clarify	Distance between bored tunnel axis and top of rail shall be maintained as 2100. Bidders are advised to evaluate TOC level of base slab for all station and cut & cover tunnel accordingly.
479	33	Section-B/Functional Part-1, Clause 4 - Clearances	Railway Clearances: Various clearances shall be provided as per the schedule of dimensions approved for the this MRTS	Please provide details with required clear height requirement(From IR Rail Top to Tunnel Crown) and other clearance from IR as per guidelines	As per tender conditions.
480	34	Appendix 19 - Schedule of Dimensions	Schedule of Dimensions	The schedule of Dimensions(SOD) is not found in the tender document. Please, Provide	Refer Vol 3 Page 125 onwards.
481	35	Appendix 15, Clause 9 - Real Time Monitoring	SL No 9. With regards to Railway Crossing in addition to the Real Time Monitoring, the contractor is required to review the requirement of extra temporary measures for the available cover from tunnel crown to rail track level via a technical risk assessment	Please provide a real-time scheme with the requirement of IR and tenure of monitoring at this stage as Tunnel Alignment is passing under Railway Line, Crossing-1 from CH:14770 to CH:15150 (380m) after Kanpur Central Station and Crssing-2 from CH:15850 to CH:15960(110m) after Jhakarkati Bus Terminal Station	Any document pertaining to any other contract is not relevant to the present tender.
482	36	Appendix 15, Clause 8 - Real Time Monitoring	SL No 8. Confirm the method of instrumentation and monitoring. Identifying structures for real time monitoring as per clause 2.9.8 of volume 4 ODS	Please provide a real-time scheme with the requirement at this stage for cost estimation	As per tender conditions.
483	37	2.7.19, Sumps in running tunnel	Sumps in Running Tunnel	"Sumps shall be located at every low point within each running tunnel" as mentioned under the clause may be avoided as Localised Sump inside tunnel other than CP, difficult from the maintenance point of view	Crosspassage with sump shall be provided at the lowest pont in tunnel.
484	38	Annexure I (Part A)	Borehole logs	Coordinates of individual boreholes are not mentioned in borehole logs. Please provide.	As per tender conditions.
485	39	Clause 9.5.4	Permanent lining grade of NATM Tunnel	The minimum grade of concrete is not mentioned for the permanent lining of the NATM Tunnel. Please check.	Minimum grade of RCC shall be M 35 unless otherwise already specified for any member.
486	40	Clause 2.7.5 (j)	Load Combinations	Load factors for all load combinations are given in clause 2.7.5 (j), therefore, a load factor of 1.4 as mentioned in clause 2.7.9 (a) including seismic to be removed.	As per tender conditions.
487	41	Clause 2.7.5 (f) & (k)	Ground water table assumed to be 4 m above the maximum water.	Please define the extreme water level to be considered in the design	As per tender conditions.
488	42	Clause 2.7.6	Flotation	Please specify the FOS for flotation for bored tunnel.	As per tender conditions.
489	43	Clause 2.7.18	Cross Passage	For the allowable crack width for the NATM tunnel, reference shall be made to IS-456, please confirm.	As per tender conditions.

Sl. No.	Bidder's S.No.	Reference Volume / Clause	Existing Clause	Queries	UPMRC's Reply
490	44	UPMRC-Design-US-ST-105 (2 of 2)	Left & right tappered ring arrangement	Can a universal segment ring arrangement be considered? Please confirm.	As per tender conditions.
491	45	UPMRC/KNPDD-01/KNPCC-11/GAD/SHEET 04 OF 07 & KNPAGDDC-01-TDR-KKD-ARC-CRS-42505	At Kakadeo Station, In alignment drawing difference between Rail level and ground level is 13.532m(avg.), however in Typical drawing difference between RL and GL is 14.640m.	Kindly confirm which levels are to be followed	Please refer Annexure 16 of Addendum-05.
492	46	UPMRC/KNPDD-01/KNPCC-11/GAD/SHEET 06 OF 07	At Double Pulia Station, In alignment drawing difference between Rail level and ground level is 13.645m(avg.), however in Typical drawing difference between RL and GL is 14.640m.	Kindly confirm which levels are to be followed	Please refer Annexure 16 of Addendum-05.
493	47	Cl. 2.7.5, Pg 48	**Groundwater** Ground Water Table assumed to be 4m above the maximum water. Level observed in the past 20 years from Central Water Commission in the vicinity of the site. If not available, it shall be based on pro-rata basis.	Kindly provide data published by Central Ground Water Board (CGWB)	As per tender documents.
494	48	Cl. 1.5.15, Pg 33	**One Strut Failure** The temporary structures shall be checked for the effects of a 'One-Strut failure' condition. A condition of Single Strut failing at any location when all strut and Wallers are installed, shall be evaluated in Ultimate limit state condition with Load factor of 1.05	1. Incase of splayed strut, is the failure considered for whole strut or the single splay. It is not possible to design the waler If the whole strut including splayed strut is consireder as failure. Kindly clarify. 2. Does one strut failure system applies for anchor/bolts system also?	1) Single strut failure only checked for all cases. 2) No, both can be check independently if not combinedly anchored.

CPM-4/Kanpur. CE/Contracts Chief Architect. CE/Design GM/Finance