



उत्तर प्रदेश मेट्रो रेल कॉर्पोरेशन लि०
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/KNPAGBIM-01/2020-21

Date: 04.08.2020

To,

All Bidders,

Subject: - Reply to Pre-bid queries & Addendum-01 for the tender KNPAGBIM-01.

Ref: - Tender KNPAGBIM-01: Installation & Support of Digital Project Management System (DPMS) using Building Information Modeling (BIM) Technology.

Dear Sir,

Please find enclosed herewith the Reply to Pre-bid queries & Addendum-01 to the tender KNPAGBIM-01. Further, the tender submission/opening dates are revised as follows:

- Last date of issuing addendum : 04.08.2020
- Date & time of submission of tender : 25.08.2020 @ 15:00 Hrs
- Date & time of opening of tender : 25.08.2020 @ 15:30 Hrs

Enclosures: As above

Deepak Gupta
Chief Engineer/Contract



(AN ISO 9001:2015, ISO 14001:2015, OHSAS 18001:2007 Certified Company)

Administrative Building, Near Dr. Bhimrao Ambedkar Samajik Parivartan Sthal, Vipin Khand, Gombi Nagar, Lucknow 226010

Tel: +91 522 2364014 | Fax: +91 522 2364013

Reply to Pre-Bid Queries KNPAGBIM-01

Contract KNPAGBIM-01: Supply, Installation & Support of Digital Project Management System (DPMS) using Building Information Modeling (BIM) Technology

S. No.	Reference Clauses	Employer Requirement	Details / Clarifications Required	UPMRC's Reply
1	Section 1, Point 5, Vol-1, Page No 1 of NIT	The Tenderer (s) / Applicants may be a single entity, JV or a consortium. In case of a JV/Consortium the number of partners shall be limited to 3 and each partner must have minimum 26% partnership. The members shall be jointly and severally liable to the UPMRC, its successors and assigns for all obligations, duties and responsibilities arising from or imposed by any contract subsequently entered into between the UPMRC and Applicant. A member of the JV/Consortium, which participates in more than one proposal, will cause all the proposals in which the member has participated to be disqualified.	As the project is very complex which involve a) Multiple IT application (implementation & Support) b) Supply of license and implementation c) Supply of H/W d) OSO service e) Infrastructure management such as office establishment etc. For the efficient management of the project we need to engage expert of each type of work area. So request you to amend the clause as: The Tenderer (s) / Applicants may be a single entity, JV or a consortium. In case of a JV/Consortium the number of partners shall be limited to 4 and each partner must have minimum 5% partnership. The members shall be jointly and severally liable to the UPMRC, its successors and assigns for all obligations, duties and responsibilities arising from or imposed by any contract subsequently entered into between the UPMRC and Applicant. A member of the JV/Consortium, which participates in more than one proposal, will cause all the proposals in which the member has participated to be disqualified.	As per Tender Conditions.
2	Point 7, Key Details,EMD Amount, Vol-1, Page No 2 of NIT	INR 0.5 Million (5 Lakhs) in the form of Demand Draft / Bank Guarantee.	We request department to clarify. In both document KNPAGBIM01_nit_knpagbim-01 & Combined Volume-1, EMD amount is miss matched. Request department to clarify which EMD amount we should consider.	EMD amount is Rs. 5 Million (50 Lakhs). Also kindly refer para 7-Key Details of NIT, Vol-01
3	Point 7, Key Details, EMD Amount, Page No. 2 of Vol-1	INR 5 Million (50 Lakhs) in the form of Demand Draft / Bank Guarantee.	We request department to clarify. In both document KNPAGBIM01_nit_knpagbim-01 & Combined Volume-1, EMD amount is miss matched. Request department to clarify which EMD amount we should consider.	EMD amount is Rs. 5 Million (50 Lakhs). Also kindly refer para 7-Key Details of NIT, Vol-01
4	Point 7, Key Details, EMD Amount, Page No. 2 of Vol-1	Place for purchase of tender documents, seeking clarifications and submission of completed tender documents and submission of completed tender documents.	Considering the prevailing scenario due to corona, request you to allow the online submission of the tender.	As per Tender Conditions.
5	Volume-1, Section 3.1 Tenderer's/ Applicant's Profile & Financial Standing, Sr. no 4, Page No. 9	Does the applicant have minimum average annual turnover of Rs.100 Crores in last three financial years ending March 31,2019 or as considered in the bidder's country of origin.	We request department to change as. Does the applicant have minimum average annual turnover of Rs.50 Crores from IT Services business which includes Software Development, Customization, Implementation and Post - Implementation support in last three financial years ending March 31,2020 or as considered in the bidder's country of origin. In case the balance sheet for FY 2020 is not available, bidder can submit the balance sheet of the last 3 year ending March 31,2020	Turnover requirement remains as per tender Conditions. However, in case audited/C.A certified balance sheet for FY. 2019-2020 is available, then average annual turnover shall be based on 17-18, 18-19 & 19-20.
6	Volume-1, Section 3.2 Professional Strength, Sr. no 1, Page No. 11	Does the Applicant have more than 5 years of experience in Building Information Modelling (BIM) services including 3D BIM/4D-5D BIM services, implementation and support as on as on the due date of submittal.	As SD BIM is comparatively a new concept and most of the projects has been implemented in last 2-3 year, we request department to change as. Does the Applicant have more than 3 years of experience in Building Information Modelling (BIM) services including 3D BIM/ 4D-5D BIM services, implementation and support as on as on the due date of submittal.	As per Tender Conditions.
7	Volume-1, Section 3.2 Professional Strength, Sr. no 3, Page No. 11	Has the Applicant proposed deployment of at least 5 OEM certified 5D BIM software professionals.	We request department to change as. Has the Applicant proposed deployment of at least 5, 5D BIM software professionals with the experience of minimum one project experience. As most of the 5D BIM OEM doesn't work on the reselling model, we request department to change the clause as.	As per Tender Conditions.
8	Volume-1, Section 3.2 Professional Strength, Sr. no 3, Page No. 11	Is the Applicant (directly or in consortium with Agencies) a value added reseller or certified system integrator or agency with the principal of the OEM solutions proposed for a minimum period of 1 years as on 31st March 2020.	Is the Applicant (directly or in consortium with Agencies) a value added reseller or certified system integrator or agency with the principal of the OEM solutions proposed for a minimum period of 1 years as on bid date or have got Manufacturer's Authorisation Form(MAF) for at least one project in the last one year from the bid submission date. Certificate/MAF from OEM or Proof of solution supply/ implementation of the proposed solution by the same OEM during last 5 years should be submitted.	As per Tender Conditions.



<p>Volume-1, SECTION 3: REQUEST FOR PRE-QUALIFICATION</p> <p>3.1. Tenderer's/ Applicant's Profile & Financial Standing</p> <p>Page no-11</p>	<p>As the OSO is the most critical part of the project, we request the authority to add OSO experience in the pre-qualification requirement.</p> <p>The Applicant should have experience of OSO implementation in infrastructure projects including Metros/ Railways/ Residential/ Commercial/ Institutional building etc. during last 5 years as on the due date of submittal.</p>	<p>As per Tender Conditions.</p>																					
<p>10</p> <p>3.1. Evaluation of Technical Proposal</p> <p>Page no-4</p>	<table border="1"> <thead> <tr> <th>Criterion No.</th> <th>Criterion Weightage(%)</th> <th>Marks</th> </tr> </thead> <tbody> <tr> <td>I Specific experience of the firms relevant to this type of Assignment.</td> <td>20</td> <td>1600</td> </tr> <tr> <td>II Proposed Solution</td> <td>20</td> <td>1600</td> </tr> <tr> <td>III Adequacy of Proposed Methodology & work plan in responding to the TOR</td> <td>15</td> <td>1200</td> </tr> <tr> <td>IV Qualifications, experience and competence of the Key Staff to be deployed for the Assignment</td> <td>45</td> <td>3600</td> </tr> <tr> <td>TOTAL</td> <td>100</td> <td>8000</td> </tr> </tbody> </table>	Criterion No.	Criterion Weightage(%)	Marks	I Specific experience of the firms relevant to this type of Assignment.	20	1600	II Proposed Solution	20	1600	III Adequacy of Proposed Methodology & work plan in responding to the TOR	15	1200	IV Qualifications, experience and competence of the Key Staff to be deployed for the Assignment	45	3600	TOTAL	100	8000	<p>As per Tender Conditions.</p>			
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<p>11</p> <p>Volume-2, Criterion I: Specific experience of the firms relevant to this type of Assignment, Sr no 1, Page No.7</p>	<table border="1"> <thead> <tr> <th>Criterion No.</th> <th>Criterion Weightage(%)</th> <th>Total Marks</th> </tr> </thead> <tbody> <tr> <td>I Specific experience of the firms relevant to this type of Assignment.</td> <td>20</td> <td>1600</td> </tr> <tr> <td>II Proposed Solution</td> <td>20</td> <td>1600</td> </tr> <tr> <td>III Adequacy of Proposed Methodology & work plan in responding to the TOR</td> <td>15</td> <td>1200</td> </tr> <tr> <td>IV Qualifications, experience and competence of the Key Staff to be deployed for the Assignment</td> <td>35</td> <td>2800</td> </tr> <tr> <td>OSO Experience</td> <td>10</td> <td>800</td> </tr> <tr> <td>TOTAL</td> <td>100</td> <td>8000</td> </tr> </tbody> </table>	Criterion No.	Criterion Weightage(%)	Total Marks	I Specific experience of the firms relevant to this type of Assignment.	20	1600	II Proposed Solution	20	1600	III Adequacy of Proposed Methodology & work plan in responding to the TOR	15	1200	IV Qualifications, experience and competence of the Key Staff to be deployed for the Assignment	35	2800	OSO Experience	10	800	TOTAL	100	8000	<p>In the given clause there is no mention of the value of 5D BIM project implemented by the bidder. Considering the critically and complexity of the assignment, bidder should have the similar project experience, which should be at par in terms of complexity as well as financial value. So we request the department to change the clause as,</p> <p>Experience in 5D BIM deployment/ implementations in infrastructure projects including Metros / Railways / Residential/ Commercial/ Institutional Building projects etc. during the last five (5) years as on 30.04.2020. Value of each project being more than Rs 500 crores. Bidder having 3 or more deployments/ implementations will get 100% of the maximum marks for this sub-criterion. Other bidders having lesser number of deployments / implementations carried out/being carried out.</p> <p>For example, if bidder A, B & C have 4, 3 and 2 nos of deployments / implementations respectively, then they will be awarded marks under this sub criteria as under-</p> <p>Bidder A= 100% Marks (since no. of deployments done >3)</p> <p>Bidder B = 100% Marks (Since no. of deployments done=3)</p> <p>Bidder C = 0.67 x100 =67% Marks</p> <p>Proportion= (No. of deployments done)/3</p> <p>The project experience will only be considered if it involve the following:</p> <p>a) Out of the above projects the value of one project should greater than 10 cr.</p> <p>b) Out the project experience shown, at least one project should be in railways/metro domain</p> <p>c) All the project cited above should involve 5D BIM visualization implemented in it</p> <p>Note: If the bidder is showcasing one project, it should comply with all the above conditions.</p> <p>As per Tender Conditions.</p>
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12	Volume-2, Criterion II: Proposed Solution, Sr no 1, Page No. 8	<p>Bidders will be evaluated as per their prior experience of deploying solution proposed for this project. Bidder having done 3 or more deployments of the solution proposed by them will get 100% of the maximum marks for this sub-criterion. Other bidders having done lesser number of deployments of the proposed solution will be awarded with respect to 3, based on proportion of number of deployments of the proposed solution carried out/being carried out by them.</p> <p>For example: If bidder A, B and C have done 4, 3 and 2 nos of deployments respectively, then they will be awarded marks under this sub criteria as under- Bidder A= 100% Marks (since no. of deployments done >3) Bidder B = 100% Marks (Since no. of deployments done=3) Bidder C = 0.67 x100 =67% Marks (Proportion= No. of deployments done /3</p>	<p>In the given clause the scope of proposed solution is not given. So, to define the scope of the project, request you to amend the clause as Bidders will be evaluated as per their prior experience of similar solution for this project. Bidder having done 3 or more deployments of the similar solution by them will get 100% of the maximum marks for this sub-criterion. Other bidders having done lesser number of deployments of the proposed solution will be awarded with respect to 3, based on proportion of number of deployments of the proposed solution carried out/being carried out by them.</p> <p>For example If bidder A, B and C have done 4, 3 and 2 nos of deployments respectively, then they will be awarded marks under this sub criteria as under- Bidder A= 100% Marks (since no. of deployments done >3) Bidder B = 100% Marks (Since no. of deployments done=3) Bidder C = 0.67 x100 =67% Marks (Proportion= No. of deployments done /3</p> <p>The project experience will only be considered if it invoke the following: a) Out of the above projects the value of one project should be greater than 10 cr. b) Out of the project experience shown, at least one project should be in railways/metro domain Note: If the bidder is showcasing one project, it should comply with all the above conditions. At least one implementation project should cover the following: a) Supply of license b) 5D BIM visualization c) Integration with BIM and scheduling software d) Owner support office(OSO) service</p>	As per Tender Conditions.
13	Volume-2, Documentary Evidence, Page No. 8	<p>Documentary Evidence: For ongoing projects to be eligible, progress attained should be 80% or more.</p>	<p>As it is difficult to measure the progress of the project, request you to amend the clause as: For ongoing projects to be eligible, if the start date of the project is minimum 6 month from the bid submission date and at least 2 key milestones of the project has been completed.</p>	As per Tender Conditions.
14	Volume-2, Criterion II: Proposed Solution, Sr no 1, Page No. 8	<p>Key Professional: Project Director cum Team Leader (OSO) Relevant Experience & Eligible Assignments: Minimum 4 years of experience as head /senior management in setting up of new teams / OSO setup. Above experience shall include BIM and cloud collaboration works only.</p>	<p>Experience in OSO implementations in infrastructure projects including Metros / Railways / Residential/ Commercial/ Institutional Building projects etc. during the last seven (7) years as on 30.04.2020. Bidder having 3 implementations will get 100% of the maximum marks for this sub-criterion. 1 Project = 20% Marks 2 Project = 40% Marks 3 Project = 60% Marks In addition out of the above 3 project 1 project should be in metro will get additional 20 % Marks. out of the above 3 project 1project OSO value should have not less than 10 cr will get additional 20% Marks.</p>	As per Tender Conditions.
15		<p>Key Professional: BIM Strategy Specialist & BIM Head Relevant Experience & Eligible Assignments: Minimum 5 years of BIM services management experience including supervision, strategy & guidance experience in implementation of at least three 5D BIM projects.</p>	<p>As key experience of the project director is project management and handle complex IT project, request you to amend the clause as: Key Professional: Project Director cum Team Leader (OSO) Relevant Experience & Eligible Assignments: Minimum 2 years of experience as head /senior management in setting up of new teams / OSO setup. Above experience shall include project management/BIM/implementation of complex IT systems of project of value more than 10 crores.</p>	As per Tender Conditions.
16	Volume-2, Criterion II: Criterion IV:	<p>Key Professional: BIM Strategy Specialist & BIM Head Relevant Experience & Eligible Assignments: Minimum 5 years of BIM services management experience including supervision, strategy & guidance experience in implementation of at least three 5D BIM projects.</p>	<p>As 5D BIM is the new concept, request you to amend the clause as: Key Professional: BIM Strategy Specialist & BIM Head Relevant Experience & Eligible Assignments: Minimum 2 years of BIM services management experience including supervision, strategy & guidance experience in implementation of at least three 5D BIM projects.</p>	As per Tender Conditions.
17	Qualifications, experience and competence of the Key Staff to be deployed for the Assignment. Key Professionals Page No. 8	<p>Key Professional: Digital Project Implementation Specialist Relevant Experience & Eligible Assignments: Minimum 5 years of BIM project coordination & supervision experience including experience in developing EIR/ BEP/ BIM standards/ BIM Guidelines etc.</p>	<p>As SD BIM/CDE is the new concept, request you to amend the clause as: Key Professional: Digital Project Implementation Specialist Relevant Experience & Eligible Assignments: Minimum 2 years of BIM project coordination & supervision experience including experience in developing EIR/ BEP/ BIM standards/ BIM Guidelines etc.</p>	As per Tender Conditions.
18	Key Professional: CDE Specialist Relevant Experience & Eligible Assignments: Minimum 5 years of BIM collaboration / CDE implementation experience.	<p>Key Professional: CDE Specialist Relevant Experience & Eligible Assignments: Minimum 5 years of BIM collaboration / CDE implementation experience.</p>	<p>As SD BIM/CDE is the new concept, request you to amend the clause as: Key Professional: CDE Specialist Relevant Experience & Eligible Assignments: Minimum 2 years of BIM collaboration / CDE implementation experience.</p>	As per Tender Conditions.



19		<p>Key Professional: 4D/ 5D BIM Specialist Relevant Experience & Eligible Assignments: Minimum 5 years of extensive BIM experience including hands-on experience in implementation of at least 2 nos. of 5D BIM projects/ assignments.</p>	<p>As per Tender Conditions.</p>								
20	<p>Volume-2, CV evaluation criteria, Page No. 10</p>	<p>CV Evaluation Criterion I: Educational Qualification & Certification (Weightage 30%) a) Educational Qualifications (Weightage: 20%) b) Professional Training/ Attachments/ Membership (Weightage: 10%) OEM certification relevant to BIM and CDE technology (1 mark per certification). Short term training course not less than a month relevant to BIM / CDE (1 mark per course) Membership of local reputed institutions, foreign institutions/bodies (1 mark per institution; subject to maximum of 10marks)</p>	<p>As per Tender Conditions.</p>								
21	<p>Volume-2, CV evaluation criteria, Page No. 10</p>	<p>Request you to amend the clause as: OEM certification relevant to BIM and CDE technology (5 mark per certification). Short term training course not less than a month relevant to BIM / CDE (5 mark per course) Membership of local reputed institutions, foreign institutions/bodies (5 mark per institution; subject to maximum of 10 marks)</p>	<p>As per Tender Conditions.</p>								
22	<p>Volume-2, CV evaluation criteria, Page No. 11</p>	<p>Request you to amend the clause as: CV Evaluation Criterion III: Experience in similar / relevant assignment (Weightage:40%). Minimum Relevant Work Experience as stated for the key professional will earn 80% of full marks. Relevant experience of up to 2 years beyond than Minimum Relevant Experience as required for the key professional will earn 90% of full marks. Relevant experience of more than 2 years beyond the Minimum Relevant Experience as required for the key professional will earn full marks</p>	<p>As per Tender Conditions.</p>								
23	<p>Volume-2, b. IT Infrastructure Support and Maintenance Page No. 41</p>	<p>We request you to clarify the following a) Whether the application will be hosted on Cloud or it will be on-premise ? b) In case it is on-premise, bidder has to engage the cloud service provider(CSP) and the CSP will manage all the IT infrastructure part. So request you to modify the RFP accordingly/in case the deployment is on cloud</p>	<p>Bidder has to propose solution.</p>								
24	<p>Combined Volume-2, Backup/Restore/Archival Page No. 45</p>	<p>For purpose of initial estimations of storage/media/Tools etc., UPMRC proposes online data for 3 years and archival of data (on low cost storage) older than 3 years for next 6 years i.e. total 9 years from date of data creation before any data/Media is purged from the system. However the policy shall be finalized with the Bidder/Agency after placement of PO. It is expected that the data in the archive remains non-editable by any means</p>	<p>As per Tender Conditions.</p>								
25	<p>Combined Volume-3, COST OF SOFTWARE & LICENSES Page no-10</p>	<p>The requirement of the licenses for UPMRC and GC staff is mentioned below:</p> <table border="1" data-bbox="311 324 446 851"> <thead> <tr> <th>Software</th> <th>Requirement of Licenses by UPMRC</th> </tr> </thead> <tbody> <tr> <td>1. 3D BIM Software i.e. Trimble</td> <td>5 Licenses</td> </tr> <tr> <td>2. Common Data Environment i.e. Autodesk</td> <td>5 Licenses</td> </tr> <tr> <td>3. 3D Modeling Software i.e. Revit</td> <td>5 Licenses</td> </tr> </tbody> </table> <p>The no. of license mentioned in the RFP is too low. For efficient working of the solution the platform should be accessed by UPMRC staff, GC staff as well as EPC contractor. So as per our estimate below should be the minimum license quantity 1. 5 D BIM software: 30 2. Common data environment: 500 3. 3D Modeling software: 30</p>	Software	Requirement of Licenses by UPMRC	1. 3D BIM Software i.e. Trimble	5 Licenses	2. Common Data Environment i.e. Autodesk	5 Licenses	3. 3D Modeling Software i.e. Revit	5 Licenses	<p>These are the licenses the bidder has to provide free of cost. Any additional license required by GC/UPMRC/ Contractor to be procured by GC / UPMRC/Contractor at their own cost.</p>
Software	Requirement of Licenses by UPMRC										
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The requirement of the licenses for UPMRC and GC staff is mentioned below:

Software	Requirement of Licenses by UPMRC Staff - GC Staff
1) 3D BIM Software (Eg. Trimble Vico office suite or similar)	5 Licenses
2) Common Data Environment (Eg. Autodesk BIM 360 or similar)	10 Licenses
3) 3D Modeling Software (Eg. Revit or similar)	5 Licenses

In the license requirement, the requirement of the Scheduling software such as Primavera is not mentioned. We are assuming that:
a) UP metro/GC/EPC contractor will procure the Project software on their own and use in the project
b) The bidder is not required to procure any Project management software
Please validate

These are the licenses the bidder has to provide free of cost. Any additional license required by GC/UPMRC/ Contractor to be procured by GC / UPMRC/Contractor at their own cost. The term 5D BIM software includes any software (including project management software) that is required for implementation of 5D BIM software.

In addition to above, the bidder shall procure number of licenses sufficient to meet requirement of OSO. In case UPMRC is of the opinion that number of Licenses proposed/ procured by tenderer/applicant are not adequate to meet the requirements, the tenderer/applicant shall be bound to procure additional licenses as instructed by UPMRC without any additional cost to UPMRC. Decision of UPMRC in this regard shall be final and binding on the tenderer/applicant.

As per the RPP, the quantity of the Software license is not clearly defined. As a result it is on the discretion of the bidder to procure the license quantity, which may lead to mismatch in the required quantity and quantity procured by the bidder.
To remove the ambiguity, request you to define the exact number of license that will be used by different project stakeholder such as
a) UPMRC
b) GC
c) OSO team
d) EPC contractor(if they are given access)
e) Any other stakeholder

There will be about 10 Contractors + 1 No. GC + 2 No. JDC (1 each for Kampur and Agral. Bidder is required to estimate their solution sizing accordingly.

S. No.	Description
1	Servers
2	Storage
3	SAN Switches
4	Hosting Charges
4.1	DC
4.2	IDR
5	Additional item proposed by tenderer/ applicant
6	Additional item proposed by tenderer/ applicant
7	Additional item proposed by tenderer/ applicant

As per the "APPENDIX - XVIII-3-III", the hardware is to be procured by the bidder. Request you to provide the following details
a) Whether the application be hosted on-premise or it will be on-cloud.
B) What will be the ratio of DC and DR sizing
c) In case the application is hosted on the cloud, please provide the details of the requirement of cloud service provider(CSP)
We suggest that UP metro should go for the cloud hosting as it provide many benefits over the on-premise hosting:
a) **Capex Cost:** The Capex expenditure will decrease
b) **Scalability:** It has got scalability, as the capacity can be enhanced as and when required, while in case of On-premise the maximum H/W sizing need to be procured as the beginning. As UP metro has plan of starting number of new metro in different cities, it should go for the Cloud hosting
c) **Data Security:** The data hosted on cloud is more secure as compared to on-premise, as it is being stored and monitored by the cloud service provider, who have dedicated industry experts for the data management.

Bidder has to propose the solution and is free to choose on-premise / cloud hosting or a combination thereof.

Page No : 12, Section 3: Is the Applicant (directly or in consortium with Agencies) a value added reseller or certified system integrator or agency with the qualification, Vol 1, Clause 3.3 - BIM Implementation Experience

Generally system integrators or Implementation agencies are required to work as a neutral agency for Project assignments and such associations are not established in general. Request to please reconsider the phrasing of this statement and remove such restriction to enable all experienced entities to participate in the bidding process.

As per Tender Conditions.

Does the proposed Commercial Off The Shelf (COTS) 5D BIM products (i.e. each of the COTS software proposed as part of proposed BIM solution) have at least 10 implementations in infrastructure projects including Metros/ Railways/ Residential/Commercial/ institutional building project etc. Self declaration supported by Certificates from Client(s) of the OEM

Request to please accept as Customer References published in public domain in cases where available. Published customer references are the best testimony of success.

Self-declaration by the bidder mentioning software version details, brief scope of work and Value of the Eligible work(s), supported by relevant documents like work order, bill of quantities, bill wise details of payment received (certified by CA) and copy of final bill paid by client will also be considered.

Does the Proposed Solution substantially comply with LOD 300 specifications as mentioned in [https:// bimforum.org/ wp-content/uploads/2013/08/2013-LOD-Specification.pdf](https://bimforum.org/wp-content/uploads/2013/08/2013-LOD-Specification.pdf)

Since the project is around 5D BIM where quantities and cost estimates are driven from models, LOD 300 specifications will not suffice the purpose. Higher LOD (may be 450) is required for this purpose. Request to please increase the LOD level from 300 to LOD 450

As per Tender Conditions.



32	7. Key Details, Section - 1 LETTER OF INVITATION (LOI), Vol-1	Date & time of Submission of tender: 23.06.2020 @ 15.00 hrs.	At this Pandemic situation where partial offices & work has been resumed from this week only, Bidder request for extension of time for Bid submission by at least 6 weeks from the date of response of pre-bid queries.	Please refer Annexure-1 of Addendum-1
33	Conflict of interest, Vol 1 Clause Page 14, Vol 2 Clause 3.2 Page 122	Several conflict of interest related obligations on bidder.	We wish to highlight that we are a large organization providing various services to various state and central government departments, PSUs, international organizations and private clients. We wish you to note that while we have a mechanism in place to identify patent and direct conflict of interests, it may not always be possible to identify any or all indirect or remote conflict of interests. Kindly appreciate that our no conflict confirmations will be subject to the foregoing.	As per Tender Conditions.
34	Time is of essence/ expeditiously conclude the project, Vol 1 Clause 5 Annexure 3 Page 21; Vol 2 Section 6 Page 97; Vol 2 Clause 'f' Page 129		By making time of essence of the contract, you retain the right to void the contract ab initio in case timelines are not met. There are various dependencies on the client and other third parties for completing the project. There may be delays on part of client and other parties also. Thus, contract can be voided by you even if the fault is not entirely ours. We understand that it is not the intention to make the agreement void ab initio in case of any delay in achieving the timelines. You may exercise your right to terminate the contract in case of material breaches. Thus, request you to kindly delete this clause.	As per Tender Conditions.
35	3.3. BIM Implementation Experience: SI No- 2 SECTION 3: REQUEST FOR PRE QUALIFICATION, Point 2 Page 12 Annexure 7, Page 27 Annexure 13, (iii), Page 34, Vol 2 Clause 1.5 Page 3 (Pre-qualification requirement regarding blacklisting / debarment), Vol-1		The Client is requested to revise the pre-qualification regarding blacklisting/ debarment. Entities that are not blacklisted / debarred at the time of the submission of bid should be allowed to participate in the tender process. Further, entities whose blacklisting was subsequently revoked / set aside should also be allowed to participate in the tender process. We request clarity from the client as the language is the description speaks of "has been debarred or blacklisted" whereas the language in bold places the requirement of not being DEBARRED as on date of submission of the bid. The bidder confirms that PwC is not debarred as on date of submission of the bid and our declaration is subject to such clarity and forgone. The language describing the requirement is contradictory at the multiple locations and hence this clarity is sought	As per Tender Conditions.
36	Declaration with respect to prior debarment / blacklisting is sought, Vol. 1 Annexure 7 and Page 31; Vol 1 Annexure 13 Point (iii) at page 34; (Declaration on blacklisting / debarment)		The Client is requested to allow us to submit the blacklisting declaration based on the present status of our blacklisting / debarment as on date of submission of the bid. We request clarity from the client as the language is the description speaks of "has been debarred or blacklisted" whereas the language in bold places the requirement of not being DEBARRED as on date of submission of the bid. The bidder confirms that PwC is not debarred as on date of submission of the bid and our declaration is subject to such clarity and forgone. The language describing the requirement is contradictory at the multiple locations and hence this clarity is sought	As per Tender Conditions.
37	Previous transgressions/ understanding for personnel, Annexure 6 Clause 2/3 Page 26; Annexure 8 Paragraph 3 Page 28; Annexure 11 Page 32, Vol-1		We request client to consider the proposed modifications "2. The undersigned also hereby certifies that, to the best of knowledge and belief, neither our firm M/s _____ nor any of its directors/ constituent partners have abandoned any work of UPMRC nor any contract awarded to us for such works has been rescinded for poor performance/failure to complete work for which the reasons directly and solely attributable to PwC, during last five years prior to the date of this application. 3. The undersigned also furnish (s) to the best of knowledge and information available with the firm, an understanding that none of the directors/ constituent partners of our firm which are involved in the said project/proposal have been declared by any court of law as proclaimed offenders and also that neither our firm nor any of its directors/ constituent partners have been convicted under any law for the offences punishable under Indian Penal Code, Negotiable Instruments Act or any Labor / employee beneficial legislation."	As per Tender Conditions.
38	SI No - 1 - Experience in SD BIM deployment and implementation. Criterion I: Specific experience of the firms relevant to this type of assignment., Vol-2	Experience in SD BIM deployment/Implementations in infrastructure projects including Metros / Railways / Residential/ Commercial/ Institutional Building projects etc. during the last five (5) years as on 30.04.2020. Value of each project being more than Rs 500 crores. Documentary Evidence - Copy of work orders & Completion Certificates / current status (in case work is ongoing) from the client / Auditors of the company. For ongoing projects to be eligible, progress attained should be 80% or more.	We believe that Copy of Work orders would be sufficient for ongoing works. We request client to allow ongoing projects where progress attained should be 50% or more, as 50% progress would be enough to proof experience in both supply & implementation works. Customer Success Stories available in public domain shall be allowed.	As per Tender Conditions.



39	SI No -1 - Solution / Product deployment / experience of the bidder. Criterion II: Proposed Solution, Vol-2	Bidders will be evaluated as per their prior experience of deploying solution proposed for this project. Bidder having done 3 or more deployments of the solution proposed by them will get 100% of the maximum marks for this sub-criterion. Other bidders having done lesser number of deployments of the proposed solution will be awarded with respect to 3, based on proportion of number of deployments of the proposed solution carried out/being carried out by them. Documentary Evidence - Copy of work order + Completion certificate from the client or the current status (in case work is still in progress or not completed). For ongoing projects to be eligible, progress attained should be 80% or more.	We believe that Copy of Work orders would be sufficient for ongoing works. We request client to allow ongoing projects where progress attained should be 50% or more, as 50% progress would be enough to proof experience in both supply & implementation works.	As per Tender Conditions.
40	Key Professionals 6. Metro Rail Expert, Criterion IV: Qualifications, and experience of the Key Staff to be deployed for the Assignment, Vol-2	B Tech/ BE in Civil Engineering. Experience of at least 5 years in rail/ metro rail projects in technical position.	Metro expert is a technical role therefore working experience should be taken into consideration and allow B Tech/ BE in Civil / Mechanical/ Electrical Engineering.	As per Tender Conditions.
41	2.2 Track Implementation of 5D BIM 2.2.1 The Process Overview; Section - 1 Scope of Work, Vol-2	b. The process will start with developing individual intelligent 3D models in an engineering modeling and design application catering to various disciplines as agreed with UPMRC. d. DDCs & EPC contractors will be developing BIM models of the buildings / structures / systems during design phase either using 2D design drawings or directly working on 3D BIM platform from the design of elements and extracting 2D design drawings from 3D BIM models for usage at project site.	We want to confirm whether developing 3 D models is in the scope of bidder or Client shall provide the same. As both the sub scope are contradictory and confusing. Client please clarify?	Developing 3D model is in the scope of DDC.
42	SLA Parameters, Section - 5 SLA, Page 94 - Interpretation & General Instructions, Vol-2	2. Change in named key personnel-Target No Deviation	Bidder request Client to consider the case where there could be a delay / lag in issuing of LOA to bidder or delay in commencement of engagement from Client's side and in the mean time of the proposed resource resigns from the services / left the organisation. However, bidder confirm that resource would be replaced with the same competency prior approval from Client.	As per Tender Conditions.
43	SLA Parameters, Section - 5 SLA, Page 94 - Interpretation & General Instructions, Vol-2	3. Delay in any of the project milestones & 4. Delay in overall Go-Live date	Bidder shall be dependent on inputs / clearances/ approvals / documents etc. from Client / GC / DDC and other various stakeholders for timely completion of milestones. Therefore, bidder request Client to ensure the timely availability of all the pre-requisites on time and bidder shall not be responsible for any delays attributable to Clients / GC / DDC and other various stakeholders	As per Tender Conditions.
44	SLA Parameters, Page 95 - Interpretation & General Instructions, Vol-2	Training and capacity building - >75% of training audience to give a satisfactory or above rating [per training]	Bidder request Client to please clarify on the framework for assigning the ratings on trainings. Without any quantifiable parameters it would be very subjective and lead to a wrong assessment of training performance.	As per Tender Conditions.
45	4.1 Project Timeline, Page 97 - Timelines and implementation, Vol-2	a. T - Project start date i.e. the date of receipt of Letter of Acceptance of Award from Bidder Or Seven (14) days after issuance of Letter of award to Bidder by UPMRC whichever is earlier.	There is a mis-match in the definition of Project Timelines for No's of days mentioned in "Numerical" and "Word form", Client to please confirm the correct one.	Please refer Annexure-2 of Addendum-1
46	4.1 Project Timeline, Page 97 - Timelines and implementation, Vol-2	Deployment of key personnel - T+5		
47	2.1. Effectiveness of Contract, GCC Page no 117 - 2. Commencement, Completion, Modification and Termination of contract, Vol-2	Substantial mobilization of the professional personnel and staff as required should be completed within the first forty-five days period.	In earlier clause, deployment schedule mentioned is T+5 weeks and in the later GCC clause it is mentioned as within 45 days i.e. T+6. Please confirm which one is correct?	Please refer Annexure-3 of Addendum-1



48	Force majeure, 2.6.1 GCC Page no 118, Vol-2	Definition a & b	Bidder request Client to please include COVID- 19 pandemic & epidemic force majeure condition which might impact bidder's delivery as well as any related travel. If there are any circumstances that reasonably restrict travel or physical presence of our personnel at your office / location, then without prejudice to your payment obligations, you shall allow such personnel to work from home or other remote location till the time such reasonable restrictions exist. Any delay / default in performing our obligations arising from such restrictions, shall not be attributable to us and shall not be considered a breach of contract on our part and no consequent. Provision for Work from Home for the portion of work to be mutually discussed.	The Definition itself is self explanatory. However, provision for work from home shall be discussed and considered depending on prevailing situation provided such an arrangement does not compromise the deliverables and milestones of the project.
49	Conflict of interest, 3.2.4 GCC Prohibition of Conflicting Activities, Vol-2	Prohibition of Conflicting Activities Neither the Consultant nor their sub-consultants nor the Personnel of either of them shall engage, either directly or indirectly, in any of the following activities: a) during the term of this Contract, any business or professional activities in the Government's country which would conflict with the activities assigned to them under this Contract; or b) after the termination of this Contract, such other activities as may be specified in the SCC.	Personnel should be excluded considering the fact that it is difficult to control employee from changing jobs. It would be difficult for bidder to control the personnel post exit from current organization.	As per Tender Conditions.
50	Conflict of interest, 3.2.5, Vol-2	For a period of one year after the expiration of this Contract, the Consultants shall not engage, and shall cause their Personnel as well as their Sub-consultants and their Personnel not to engage, in the activity of a purchaser (directly or indirectly) of the assets on which they advised the Employer under this Contract nor in the activity of an adviser (directly or indirectly) of potential purchasers of such assets.	Bidder request Client to exempt from this clause, as bidder is a reputed seller / consultant of such services.	As per Tender Conditions.
51	Serious Hindrances , 3.8.2 GCC Page no 124, Vol-2	The consultants shall report to the employer and Bank promptly the occurrence of any event or condition which might delay or prevent completion of any significant part of the project in accordance with the schedules and to indicate what steps shall be taken to meet the situation.	This clause will be helpful when timely & periodic flow of information from all types of contractors are maintained. (Contractors for like Design, civil, structural, MEP works etc.) Employer support & bank push will always be helpful in critical analysis.	As per Tender Conditions.
52	Working Hours and Leave, 4.6 GCC Page no 126, Vol-2	Working hour as applicable to the UPMRRC employees will be applicable to Consultants also. No leave will be allowed as the payment is on man- month basis considering the month as of 30 days taking into account the holidays and rest days.	Relaxation on organizational policy related to leaves on medical grounds or PL or any other equivalent or mandatory leave policy or " Unreasonable for personnel". Unless the critical milestone is impacted any personnel leave should not be taken into account.	As per Tender Conditions.
53	Change in the Applicable Law, 5.3 GCC Page no 127 , Vol-2	If, after the date of this Contract, there is any change in the Applicable Laws with respect to taxes and duties levied in India which increases or decreases the cost or reimbursable expenses incurred by the Consultant in performing the Services, then the Consultant under this Contract shall be increased or decreased accordingly based on actuals, and corresponding adjustments shall be made to the ceiling amounts specified in Clause 6.	Changes in applicable laws should be not only limited to taxes or duties. Any changes in applicable laws impacting the sequence of work, work productivity or available duration should also be taken care.	As per Tender Conditions.
54	Mode of billing & payments, 6.4 GCC Page no 129 Point f, Vol-2	Time is the essence of the Contract.	1. Delays not attributable to performing organization should be excluded. How to evaluate concurrent delays? Any procedure or guideline to calculate the same ? Or- it will not be factored during delays calculation? 2. The maximum limit of liquidated damages shall be 10% of the total contract value, which seems high as compared to the industry practices. This may result in conservative bidding by bidders.	As per Tender Conditions.
55	Mode of billing & payments, 6.4 GCC Page no 129 Point g, Vol-3	At any time after the Employer has become entitled to liquidated damages, the Engineer may give notice to the Consultant, requiring the Consultant to complete the Works within a specified reasonable time. Such action shall not prejudice the Employer's entitlements to recovery of liquidated damages, under this Clause and to terminate under Clause 2.8.	What would be the process for defining the reasonable time? Quantification not available this may lead to risk on consultants at later stage.	As per Tender Conditions.



56	Remuneration rates, SCC Clause - 11, 6.2 b, Page no 147, Vol-2	Remunerations for periods of less than one month shall be calculated on an hourly basis for actual time spent in the consultant's home office and directly attributable to the services (one hour equivalent to 1/240th of a month) and on a calendar day basis for time spent away from home office (1 day being equivalent to 1/30th of month)	Work from home under given condition arises due to COVID-19 or equivalent or any other events which results in personnel to work from home should also be taken into account.	As per Tender Conditions. However, provision for work from home shall be discussed and considered depending on prevailing situation provided such an arrangement does not compromise the deliverables and milestones of the project.
57	Dispute resolution, SCC - Clause - 13, 8.2, Page no 148, Vol-2	Clause is silent on expenses related to hiring of arbitrators & other personnel as per Sole Arbitrator or Arbitration panel	<ol style="list-style-type: none"> 1. Generally, expenses are equally distributed at the initial stage. Who so ever wins the claims, whole expenses related to conducting the arbitration process should be passed on to the party who loses the claims. 2. Secondly, provision for 75% payment of the disputed amount during the process. Remaining 25% payment based on interest accrued after final decision. 3. If claimant loses the claim, whole amount should be returned back as per the applicable interest mutually discussed. 4. All expenses related to arbitration process should be paid within 30 days from the date of appointment of arbitrators 	Please refer Annexure-5 of Addendum-1
58	Advance payment, 13 SCC Page no 148, Vol-2	No provision. Deleted	Bidder request client to consider minimum 10% of total ceiling value as advance payment for mobilisation & set up; which will help in managing project upfront cashflow required for office set up at three locations, mobilisation resources, arrangement for other facilities incl. staff and other procurements.	Please refer Annexure-4 of Addendum-1
59	Confidentiality Obligations, Clause 3.3 Page 123, Vol-2	Exceptions to confidential information are not provided	Client is requested to allow standard exceptions to confidential information, which is industry standard and reasonable. Not all information can be regarded as confidential. For eg., if the information is in public domain, we cannot be expected to keep it confidential at our end. Similarly, if any information is liable to be disclosed under the RTI, giving it a confidential status and obliging us to keep such information confidential is not correct. We request inclusion of following clause: Confidential information does not include any information which (i) is rightfully known to the recipient prior to its disclosure; (ii) is independently developed by the recipient without use of or reliance on confidential information; or (iii) is or later becomes publicly available without violation of this agreement or may be lawfully obtained from a third party; or (iv) which would be required to be disclosed under the (Indian) Right to Information Act.	As per Tender Conditions. UPMRC shall suitably considers such requests based on type of information and parties with which it is proposed to be shared.
60		Parties to whom information can be disclosed is not documented	Client is requested to consider that we may have to disclose information for successful accomplishment of work and for regulatory and internal compliance purposes. However, to the extent legally permissible, we will ensure that even if the information is disclosed to any third party, such parties maintain confidentiality of such information. Client is therefore requested to kindly include the following clause: Consultant may disclose confidential information: (a) to subcontractors, on a need to know basis, as required for performance of services, provided such employees, directors, officers and subcontractors are bound by confidentiality obligations; (b) where required by applicable law or regulation or for regulatory and compliance (both internal and external) purposes.	As per Tender Conditions. UPMRC shall suitably considers such requests based on type of information and parties with which it is proposed to be shared.
61		Duty of care is very high - i.e. we need to maintain confidentiality using highest/strictest/best efforts standards	We request client to kindly confirm that we will be obliged to protect Confidential information using the same degree of care as we use to protect our confidential information of similar nature, and in any event, by using at least reasonable degree of care.	As per Tender Conditions.
62		Obligations to survive for more than a year post expiry or termination of contract	We request client to reduce the survival period of confidentiality obligations to one year post expiry or termination.	As per Tender Conditions.
63	Confidentiality Obligations, Clause 3.3 Page 123, Vol-2	No right to disclose client name or project for citation / reference purposes	Please appreciate that this is a prestigious project for us and we would like to showcase this project in our future proposals. We request client to allow us to refer to you and the services we have performed for you for citation / reference purposes, as long as we do not disclose your confidential information.	As per Tender Conditions. UPMRC shall suitably considers such requests based on type of information and parties with which it is proposed to be shared.
64			Client is requested to limit consultant's liability to 1X of the total contract value. This is as per GFR and the guidelines issued by Meity. It is also the normal industry practice.	As per Tender Conditions.
65	Limitation of Liability, Clause 3.4, Page 123, Vol-2		Client is requested to delete exceptions to the limitation of liability. The exceptions render the limitation of liability ineffective and make the liability unlimited.	As per Tender Conditions.



66		Client is requested to limit consultant's liability to 1X of the total contract value. This is as per GFR and the guidelines issued by Melyi. It is also the normal industry practice.	As per Tender Conditions.
67	Termination	To uphold the principles of natural justice, we request client to notify us and give us a rectification period of at least 30 days, prior to invoking this clause.	Kindly refer to para 2.8.1 of GCC wherein notice period is mentioned.
68		To uphold the principles of natural justice and to bring party in the contract, we request client to give us the right to terminate the contract in case client breaches any of its material obligations under the contract, provided a notice for such breach is given to client along with a rectification period of 30 days.	Kindly refer to para 2.8.2 of GCC.
69	Termination, Page 94 SLA General T&C; Clause 2.8 (g) Page 120, Vol-2	We request client to delete this ground for termination as it is unreasonable and there are several remedies in contract and law available to the client for such breach.	As per Tender Conditions.
70		LD should be imposed if solely attributable to the bidder and should be tightly aligned to a well laid consultative process and ascertaining the cause of the delay in question. We request client to cap the liquidated damages/penalties cumulatively to 5% of the total contract value with 0.5% per week	As per Tender Conditions.
71	Liquidated damages, Page 94 SLA General T&C/, Vol-2	We understand that as per Contract Act, where LDs are stipulated, generally any other damages cannot be claimed. Therefore we request you to kindly make imposition of liquidated damages as sole and exclusive remedy for corresponding breaches.	As per Tender Conditions.
72		We understand that we would be liable to pay liquidated damages to the extent corresponding breach is solely attributable to us. Kindly confirm.	As per Tender Conditions.
73	Intellectual Property Right (IPR), Clause 3.9 Page 124, Vol-2	There are innumerable IPRs that exist with us which we would like to use to your benefit while delivering our services to you. These are our pre-existing IPRs and we use it for all clients. We will not be able to give ownership in such IPRs to you just because we are using them for providing services to you, like we use these for other clients. We request that we are allowed to retain ownership of our pre-existing IPRs, else we might be not be able to use these in providing services to you in order to protect our ownership in them. We request you to kindly include the below clause. This is also the standard mentioned by Melyi in its guidelines. Notwithstanding anything to the contrary in this agreement, Consultant will retain the ownership of its pre-existing intellectual property rights (including an enhancement or modification thereof) even if such IPRs are used for creating deliverables, are incorporated in the deliverables, etc. To the extent such pre-existing IPRs are included/incorporated in the deliverables, upon receipt of all due and payable payment in full, the Consultant shall grant a non-exclusive, perpetual and fully paid up license to the Purchaser/Client to use such pre-existing IPRs for use of deliverables for the purpose for which such deliverables are meant for client's internal business operations.	Clause 3.9 do not restrict use of pre-existing IPRs. However all plans, drawings, specifications, designs, reports and other documents prepared by the Consultants in performing the Services of company shall become and remain the property of the Employer, and the Consultants shall, not later than upon determination or expiration of this Contract, deliver all such documents to the Employer, together with a detailed inventory thereof
74	Insurance, Clause 3.5 Page 123; Clause 3.5 Page 146, Vol-2	We wish to clarify that we maintain insurances, at the firm level, which are required to be maintained by us as per the provision of laws. Separate insurances for this project may not be required in light of such firm level insurance. We can provide you with a confirmation about our firm level insurance and that to the extent required by law, this project will also be covered under that insurance. We hope that should suffice. Please confirm.	Agreed. Bidder to provide confirmation under that insurance.
75	Arbitration, Clause 8.2(d) Page 148, Vol-2	In order to uphold the principles of natural justice (Nemo iudex in causa sua- no one should be judge in ones own case) and the provisions of the Arbitration and Conciliation Act, we request that the arbitrator(s) be appointed with mutual consent of both the parties. Alternatively, a panel of three arbitrators may be set up in which one arbitrator is appointed by Consultant, one by the client and the two arbitrators appoint third arbitrator. Please confirm.	Please refer Annexure-5 of Addendum-1
76	Audit, Clause 3.6 Page 123, Vol-2	We wish to clarify that we will retain our records as per our records retention policies. Upon reasonable notice, we will allow Client to inspect our invoicing records under this engagement; such inspection shall be done in a pre-agreed manner and during normal business hours. For avoidance of doubt, such inspection should not cause us to be in breach of our organizational confidentiality requirements. Please acknowledge that our audit related obligations will be subject to foregoing statement.	As per Tender Conditions.
77	Survival obligations, Clause 2.8.3 Page 120, Vol-2	We request that any obligation arising under the agreement shall survive for a period of 12 months, post termination/expiry of the Contract	As per Tender Conditions.



78	No third party disclaimer, No clause in RFP. Please include in pre-bid.	There is no restriction on the usage of deliverable. No third party disclaimers.	We will be providing services and deliverables to you under the contract. We accept no liability to anyone, other than you, in connection with our services, unless otherwise agreed by us in writing. You agree to reimburse us for any liability (including legal costs) that we incur in connection with any claim by anyone else in relation to the services. Please confirm our understanding is correct.	Successful bidder needs to provide services & deliverables to UPMRCL and their contractually bound contractors/consultants as per scope of this work. Hence the successful bidder shall be liable to services and deliverables provided under this work to UPMRCL and their contractually bound contractors/consultants only.
79	Appendix III.7 Page 110; Clause 4.4 (c) Page 125, Vol-2		There may be circumstances beyond the reasonable control of the Consultant, where a replacement of personnel may be necessary, such as illness, death, resignation or disciplinary action against the concerned personnel, etc. In such cases, Client is requested to allow exceptions to this clause and make penalties inapplicable. The Consultant shall exercise reasonable efforts to provide a suitable replacement to the Client.	As per Tender Conditions.
80	4. Consultants' Personnel 4.6. Working Hours and Leave, General Conditions of Contract (GCC), Vol-2 Page 126.	Working hour as applicable to the UPMRCL employees will be applicable to Consultants also. No leave will be allowed as the payment is on man- month basis considering the month as of 30 days taking into account the holidays and rest days. (Details of duration of overtime and vacation leave should be given in Appendix X. The rate thereof and total cost on this account has to be included in the financial proposal.	We believe that in case of emergency Consultant resources shall be allowed to take leaves on prior notice to Client, with subject to replacement of resources with the same competency.	As per Tender Conditions.
81	FACILITIES TO BE PROVIDED BY THE EMPLOYER, Pg. 140, Appendix -XI, Vol-2	Consultant on his own can hire office spaces up to 300 sqm floor area in total for their office locations at Lucknow, Kanpur & Agra.	As Employer is having its well established offices at all the three locations shared by Employer, GC & DDC; therefore Bidder request Employer to accommodate Bidder personnel in Employer offices only instead of separate office as this would lead to unnecessary expense into the project and would require lot of approval processes internally as well as externally. If require Employer may back charge the office rent from Consultant's scope with prior information on rent amount etc.	As per Tender Conditions.
82	Clause 3.1 Evaluation of Technical Proposal: Experience in 5D BIM deployment and implementation, Page 5, Clause 3. Proposal Evaluation, Vol-2	Bidder having 3 or more deployments/ implementations will get 100% of the maximum marks for this sub-criterion. Other bidders having lesser number of deployments / implementations will be awarded with respect to 3, based on proportion of number of deployments / implementations carried out/being carried out. For example, if bidder A, B & C have 4, 3 and 2 no's of deployments / implementations respectively, then they will be awarded marks under this sub criteria as under- Bidder A = 100% Marks (since no. of deployments done >3) Bidder B = 100% Marks (Since no. of deployments done=3) Bidder C = 0.67 x100 =67% Marks (Proportion= No. of deployments done)	Request you to please rephrase the overall requirement as suggested below: Experience in 5D BIM deployment/ implementations in infrastructure projects including Metros / Railways / Residential/ Commercial/ Institutional Building projects etc. during the last five (5) years as on 30.04.2020. 1(One) Project of Value more than 500 crores or 2 Projects of Project Value more than 300Crores or 3 Projects of value more than 200Crores each shall be considered for evaluation and marking.	As per Tender Conditions.
83	Section 2.1, page 21, Volume 2	Section 2.1 Owner Support Office	Will the agency require to setup a own office space or client shall provide space within their own office premises?	Kindly refer to Appendix XVIII-3IV, Volume-3 of RFP.
84	general		What is the current stage of design/construction and all DDCs/GCs are BIM enabled?	All the major Contractors / DDC/GC are/ shall be BIM enabled as per requirement.
85	Section 2.1.5 (C) Page 23, Volume 2	Training Need Analysis and Capacity Building Plan	For the purpose of Upskilling what is the strength of officers for whom the training sessions would need to be organised?	As per need analysis to be conducted by bidder.
86	Section 2.2.2, Page 27, Volume 3	To improve the safety and speed of inspections and maintenance with the ability to see asset information within the context of 3D models during operations	Section 1. Overview of Scope of work excludes Sustainability and facility management. As per our understanding the asset information integration is under the purview of Facility management. Please clarify if asset information is to be integrated or not?	Solution shall have facility of integrating all the information. However, Asset management implementation is not in scope of bidder.
87	General		Is the billing or invoicing flow process shall be through SAP	ERP integration is not under the scope of work under this tender.



88	General		Will the bar code in the drawings required as a part of Quality Assurance	Bidder has to propose a solution meeting the requirement of document.
89	General		Due to ongoing COVID situation, compiling the bid documents will take time. Hence we request for an extension till 23rd July 2020.	Please refer Annexure-1 of Addendum-1
90	General		Incase any firm is selected for the GC bid, can the same firm participate for Tender No. KNPAQBIM01. Please confirm that it will not be conflict of interest.	Not a conflict of interest.
91	General		Since its a hard copy bid submission and due to covid situation it will be difficult for us collate the documents by 23rd June 2020. Hence we request for an extension and some alternative for hardcopy bid submission.	As per Tender conditions. Please refer Annexure-1 of Addendum-1
92	Vol.1.2 TOR – Scope of Work 2.1.7 Build Phase of Digital Project. Pt.# g & h.		OSO has to assist UPMRC to take over complete documentation from 5D BIM and other IT implementation teams and monitor smooth transition to respective sustenance teams. This will require one time costs for legacy data to be taken over and is not captured as a cost head. Please describe the current nature, scale and formats of legacy data to factor the cost.	As per Tender Conditions.
93	Vol.1.2 TOR – Scope of Work 2.1.8 Go-live Pt.# a.		To deliver the necessary hardware, access network, system security and activate the software licences for GC, different EPC Contractors & DDCs, the targeted resource deployment schedule and work locations will be required. Request you to kindly provide the inputs.	There will be about 10 Contractors + 1 No. GC + 2 No. DDC (1 each for Kanpur and Agra). Bidder is required to estimate their solution sizing accordingly.
94	Vol.1.2 TOR – Scope of Work 2.1.9 Run, Phase & GCC# 1.7		Will UPMRC provide logistics support for the changes that occur in resources and locations as the project progresses, e.g. EPC project office shifts from one location to other (or) particular DDC is replaced from one agency to another?	No.
95	Vol.1.2 TOR – Scope of Work 2.2.1 The Process Overview. Pt.# d.		For the 2D design drawings received from EPC Contractors & DDCs, we have to plan who will convert these 2D design drawings into compatible & interoperable 3D Bi-models and thus add to the 3D-SD BIM implementation? Should the solution also consider Bi-modelling resources to address these factors?	DDC will provide the 3D models.
96	Vol.1.3 TOR – APPENDIX XVIII Note# 5		Number of licences required by DDCs & EPC Contractors is not mentioned. Require phase wise Project Organization Chart as design inputs are contributed by them as well apart from the GC.	Bidder has to provide licence to UPMRC/GC as mentioned in the Tender document. DDC/EPC contractor will procure required license by themselves. Bidder is not required to supply licence to DDC/Contractor. There will be about 10 Contractors + 1 No. GC + 2 No. DDC (1 each for Kanpur and Agra). Bidder is required to estimate their solution sizing accordingly.
97	General		Number of Training Hours across all teams is required.	As per need analysis to be conducted by bidder.
98	Vol.1.2 TOR – Scope of Work 2.2.2.8 Pt.# n.		To compare current cost and estimated total target cost we require the project-wise, phase-wise & package-wise budgeting, estimation, final negotiated order value, contractual payment terms & work certified from UPMRC organization. Will UPMRC ERP system API be available for integration?	Project details shall be provided at the implementation stage. ERP integration is not in the scope of work under this tender.
99	Vol.1.2 TOR – Scope of Work 2.2.2.4 Work Sharing Pt.# a.		To meet objective GC/ UPMRC Design Approval process is required. Kindly share	Drawings prepared by DDC are reviewed and approved by GC in case of construct only tenders. For Design & Build tenders, design submitted by contractor are reviewed & approved by GC. In some cases, DDC also proof checks these designs.
100	Vol.1.2 TOR – Scope of Work 2.2.2.5 Content Reuse Pt.# a.		Is Content Reuse applicable only to designers' design files? Can teams get electronic inputs such as detailed schedules, planned vs actual onsite, quality & safety defects, etc. and allow change history trail to be recorded?	As per Tender Conditions.
101	Vol.1.2 TOR – Scope of Work 2.2.2.6 Dynamic Feedback Pt.# a.		Is Dynamic Feedback applicable only to designers' design files? Can reviewers add electronic feedbacks to all types of documents, such as site reports, schedules, estimates, defects logs, etc. and allow change history trail to be recorded?	As per Tender Conditions.

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102	Vol-2 TOR - Drafting, Modelling, Drawings, Analysis# 3, 51		Will Design Analysis Tool be operated by the respective DDC themselves i.e. Mechanical Engineer, Solar Architect, etc. or should central resource be planned?	by DDC.
103	Vol-2 TOR - Digital Content Management System# 77		Should we consider saving historical file versions throughout the 48 months duration?	As per Tender Conditions.
104	Vol-2 - Service Level Agreement pg. 94		Please confirm the key personnel referred in the S.No. 2 of the table "Change in named key personnel" is same as the key staff listed in the table in Volume 2 pg. 9. Please elaborate the undefined terms listed below: 1. 2.2.2.1 - 3D intelligent models, 2.2.2.6 - 3D i-model 2. SCHEDULING AND COST ESTIMATE# 214 - Line of Balance, Flowline Scheduling 3. SCHEDULING AND COST ESTIMATE# 215 - CPM package, Location-based scheduling 4. SCHEDULING AND COST ESTIMATE# 226 - Potential Problem analysis 5. SCHEDULING AND COST ESTIMATE# 224, 227 - Risk levels, Risk simulation 6. SCHEDULING AND COST ESTIMATE# 228 - Criticality sheet 7. SCHEDULING AND COST ESTIMATE# 233, 235 - Schedule wizard, Schedule task control chart	Confirmed.
105	general		As you may appreciate the dynamic nature of this business solution which shall require multiple partners coming together to form JV/ Consortium on one hand and the unprecedented current difficulty amidst the Covid-19 outbreak on the other, making it outrightly difficult to form a JV/ Consortium and purchase the tender documents in the name of the JV/ Consortium before 05.06.2020 (the last date of purchase of tenders). Hence, we understand that a submitted tender by a JV/ Consortium shall be considered valid if any one of the JV partner has purchased one original set of tender documents.	The clause is self explanatory.
106	ITT 2.15; Vol-1; pg. 11			Yes, your understanding is correct.
107	Clause 3.1 - 4, Vol-1	Does the applicant have minimum average annual turnover of Rs.100 Crores in last three financial years ending March 31,2019 or as considered in the bidder's country of origin.	As the project value is 50 crores, we request to change the turnover requirement to - Does the applicant have minimum average annual turnover of Rs.50 Crores in last three financial years ending March 31,2019 or as considered in the bidder's country of origin.	As per Tender Conditions.
108	Clause 3.2-2, Vol-1	Has the Applicant provided post implementation support services to customers for a minimum of 3 years	Support for what kind of project. We assume these services are related to support provided for 5D BIM implementation projects. Please confirm or elaborate if different.	For implementation support services please refer to support provided for BIM solution / support provided to individual softwares used in BIM solution.
109	Clause 3.2-3, Vol-1	Has the Applicant proposed deployment of at least 5 OEM certified 5D BIM software professionals	We assume that this clause means that the professionals should be certified on the software being used for 5D BIM, as there is software certification and not process certification i.e. 5D BIM. Please confirm	Yes, your understanding is correct.
110	Clause 3.3-1, Vol-1	Has the Applicant substantially completed at least one 5D BIM implementation in infrastructure projects including Metros/ Railways/ Residential/ Commercial/ Institutional building etc. having project cost not less than INR 500 Crores during last 5 years as on the due date of submittal.* Note: The Applicant should have experience in green field implementations of 5D BIM projects (work done only on upgrades, add-on solutions, or maintenance or operational support shall not be deemed adequate for qualification) on the proposed solutions.	Please define substantially	Kindly refer to the column under 'Documentary Evidence' of Criterion I & Criterion II of Para 3.1 Technical Evaluation Pg 5 & 6 of Vol-2.
111	Clause 3.3-2, Vol-1	Is the Applicant (directly or in consortium with Agencies) a value added reseller or certified system integrator or agency with the principal of the OEM solutions proposed for a minimum period of 1 years as on 31st March 2020.	Value Added Reseller is a term only used by some and not all OEMs. Various OEMs do not provide such associations/certifications. Also, please define what does as "agency with principal" mean. Hence, we request the clause to be modified to "Applicant to have a letter of collaboration signed with the OEM with whom the solution is going to be implemented. Applicant should be implementing or implemented atleast one solution through the OEM with a project start date of before 26th June 2019.	As per Tender Conditions.



112	<p>Criterion 1 solution/product deployment experience of bidder, Vol-2</p>	<p>Bidders will be evaluated as per their prior experience of deploying solution proposed for this project. Bidder having done 3 or more deployments of the solution proposed by them will get 100% of the maximum marks for this subscription. Other bidders having done lesser number of deployments of the proposed solution will be awarded with respect to 3, based on proportion of number of deployments of the proposed solution carried out/being carried out by them</p> <p>For example If bidder A, B and C have done 4, 3 and 2 nos of deployments respectively, then they will be awarded marks under this sub criteria as under- Bidder A= 100% Marks (since no. of deployments done >3) Bidder B = 100% Marks (Since no. of deployments done=3) Bidder C = 0.67 x100 =67% Marks (Proportion= No. of deployments done)/3</p>	<p>As per Tender Conditions.</p>
113	<p>Terms of Reference : Track 2 e) SD BIM, Vol-2</p>	<p>SD BIM requirement</p>	<p>Confirmed.</p>
114	<p>Terms of Reference: Track 2 e) SD BIM, Vol-2</p>	<p>SD BIM requirement</p>	<p>ERP integration is not envisaged at this stage.</p>
115	<p>Terms of Reference: Track 2 e) SD BIM, Vol-2</p>	<p>No mention of scheduling software is provided in the RFP. To get to a level of 4D, schedule integration needs to be done and respective contractors should have a scheduling software. Is there a preferred scheduling software viz. MS PROJECT, Primavera etc. Please confirm if procurement of construction scheduling software is under scope of this RFP or will be catered by individual consultants.</p> <p>experience, below should be a sufficient count of licenses to implement KNP and Agra projects UPMRC/L/GC - SD BIM software - 5 licenses CDE License - 50 licenses 3D Modelling Software - 10 licenses OSO - SD BIM software - 5 licenses CDE License - 20 licenses 3D Modelling Software - 5 licenses Contractors/DDCs CDE License - 150 licenses (KNP & Agra both)</p>	<p>Scheduling of software is part of scope of BIM implementation. There is no specific preferred scheduling software from UPMRC side.</p>
116	<p>Note 3 Vol-3 COTS financial table, Vol-3</p>	<p>As the project involves management of BIM models and providing owner support office services, the Pre-qualification or technical qualification should require experience of providing BIM Management services or Owner support office services with a project start date of before 26 June 19 and a project construction value of more than 500 crores</p> <p>We propose the below clause - Bidders to be have experience of providing BIM Management services or Technology based Owner support office services in infrastructure projects including Metros / Railways / Residential/ Commercial/ Institutional Building projects etc. during the last five (5) years as on 30.04.2020. Construction value of each project being more than Rs 500 crores and an assignment start date of before 30.04.2019.</p> <p>Bidder having 3 or more deployments/ implementations will get 100% of the maximum marks for this sub-criterion. Other bidders having lesser number of deployments / implementations will be awarded with respect to 3, based on proportion of number of deployments / implementations carried out/being carried out.</p> <p>For example, if bidder A, B & C have 4, 3 and 2 nos of deployments / implementations respectively, then they will be awarded marks under this sub criteria as under- Bidder A= 100% Marks (since no. of deployments done >3) Bidder B = 100% Marks (Since no. of deployments done=3) Bidder C = 0.67 x100 =67% Marks Proportion= (No. of deployments done)/3</p>	<p>There will be about 10 Contractors + 1 No. GC + 2 No. DDC (1 each for Kanpur and Agra). Bidder is required to estimate their solution string accordingly.</p>
117	<p>General Observati on - Req. for addition in Technical Marks, Vol-2</p>	<p>As per Tender Conditions.</p>	
118	<p>Clause 3.1, Pre-qualification Criteria, Part 4, Vol-1, Page 9</p>	<p>Does the applicant have minimum average annual turnover of Rs.100 Crores in last three financial years ending March 31,2019 or as considered in the bidder's country of origin.</p>	<p>We understand that tenders of such criticality and high value warrant companies that have deep financial strength and capability. This criteria needs to be stringent to test the ability of the company to sustainably deliver value over the large project duration of 54months. Therefore the annual turnover criteria to be increased to 200Cr. or the evaluation marks to be modified to take into account the actual turnover. For example - Turnover is 100-150Cr : 70% of Max marks Turnover is 150-200Cr : 85% of Max marks Turnover is more than 200 : 100% of Max marks</p>

119	Clause 3.2, Pre-qualification Criteria, Point 1, Vol-1, Page 11	Does the Applicant have more than 5 years of experience in Building Information Modelling (BIM) services including 3D BIM/4D-SD BIM services, implementation and support as on as on the due date of submittal	It is requested to reduce the minimum experience requirement from 5years to 4 years to attract more Bidders	As per Tender Conditions.
120	Clause 3.2, Pre-qualification Criteria, Point 2, Vol-1, Page 11	Has the Applicant provided post implementation support services to customers for a minimum of 3 years	In BIM services usually there are no post implementation services apart from Facility Management. Hence this requirement should be removed from the pre-qualification criteria	For implementation support services please refer to support provided for BIM solution / support provided to individual softwares used in BIM solution.
121	Clause 3.2, Pre-qualification Criteria, Vol-1, Page 11	Point 1 - "Does the Applicant have more than 5 years of experience in Building Information Modelling (BIM) services including 3D BIM/ 4D-5D BIM services, implementation and support as on as on the due date of submittal", Point 2 - Has the Applicant provided post implementation support services to customers for a minimum of 3 years	Regarding the criteria " provided post implementation support services for min. 3 years" our understanding is service provided is either in the area of 3D BIM or 4d-5D BIM.	For implementation support services please refer to support provided for BIM solution / support provided to individual softwares used in BIM solution.
122	Clause 3.2, Pre-qualification Criteria, Vol-1, Page 11	Has the Applicant proposed deployment of at least 5 OEM certified SD BIM software professionals	1. Regarding the criteria of deploying "5 OEM certified SD BIM software professional" we understand that the certifying OEM may differ from the OEM delivering the services under the scope of this tender.	Certifications should be from OEMs that are a part of the solution proposed.
123	Clause 3.2, Pre-qualification Criteria, Vol-1, Page 11	Has the Applicant proposed deployment of at least 5 OEM certified SD BIM software professionals	SD BIM is a new concept which is yet to be accepted widely by Owners, contractors, and professionals working on projects. Other BIM software like Revit are most commonly used by professionals across sectors. Professionals have gained competencies in Revit and similar BIM software through certifications and are adopting to SD BIM with the changing scenario. People have gained expertise in SD BIM through their hand on experience in SD BIM projects while certified in Revit or other BIM software. Considering this the criteria should be relaxed by allowing certifications in Revit or similar software as it defines the foundation principles of SD BIM.	As per Tender Conditions.
124	Clause 3.2, Pre-qualification Criteria, Vol-1, Page 11	Digital project management of a Metro project spread across two cities would require deep expertise in the area of construction management/project management and Metro projects. These capabilities would help the bidder in appreciating the nuances particular to managing the Metro projects	Project management office experience of infrastructure projects and experience of working is metro projects is essential for implementation of digital PMO implementation. To strengthen the criteria and ensure the selection of bidder with the right skill set the following should be added to clause 3.2, professional strength: 1. Project management experience (PMO/PMU/OSO) - Bidder must have experience of atleast 5 years in providing project management consulting services for construction projects in India of value atleast 500Cr in the Infrastructure sector 2. Metro Project Experience - Bidder should have worked in India as a consultant for atleast 3 metro projects in the last 5 years	As per Tender Conditions.
125	Clause 3.3 Point 1, Pre-qualification Criteria, Vol-1, Page 12	Criteria - Has the Applicant substantially completed at least one SD BIM implementation in infrastructure projects including Metros/ Railways/ Residential/ Commercial/ Institutional building etc. having project cost not less than INR 500 Crores during last 5 years as on the due date of submittal.	The term "substantially completed" needs to be defined clearly to indicate the extent of completion in physical progress or budgeted cost terms.	Please refer Annexure-6 of Addendum-1
126	Clause 3.3 Point 1, Pre-qualification Criteria, Vol-1, Page 12	Criteria - Has the Applicant substantially completed at least one SD BIM implementation in infrastructure projects including Metros/ Railways/ Residential/ Commercial/ Institutional building etc. having project cost not less than INR 500 Crores during last 5 years as on the due date of submittal.	By substantial completion we understand the project is completed more than 50% which shall be certified by the client of the mentioned project.	Please refer Annexure-6 of Addendum-1
127	Clause 3.3 Point 1, Pre-qualification Criteria, Vol-1, Page 12	Criteria - Has the Applicant substantially completed at least one SD BIM implementation in infrastructure projects including Metros/ Railways/ Residential/ Commercial/ Institutional building etc. having project cost not less than INR 500 Crores during last 5 years as on the due date of submittal.*	We understand that the term "Infrastructure projects" include the sub-sectors as notified by the Department of Economic Affairs, ministry of finance, Government of India, vide Notification F.No.13/6/2009-JNF dated 8th April 2016.	As per Tender Conditions.
128	Clause 3.3 Point 1, Pre-qualification Criteria, Vol-1, Page 12	Criteria - Has the Applicant substantially completed at least one SD BIM implementation in infrastructure projects ... Documentary evidence - Information to be provided as per Annexure-9 and BIM implementation completion certificate along with work order/ BOQ from Client(s) of the referred projects.	Documentary evidence - Generally, In projects WO is a confidential document which companies may not be willing to share with other organizations, hence difficult to obtain. Implementation Completion certificate from the client is a substantial proof for establishing the credibility. Therefore the clause for documentary evidence should be modified to include either of the documents (BIM implementation completion certificate or Work order)	As per Tender Conditions.
129	Clause 3.3 Point 2, Pre-qualification Criteria, Vol-1, Page 12	Criteria - Is the Applicant (directly or in consortium with Agencies) a value added reseller or certified system integrator or agency with the principal of the OEM solutions proposed for a minimum period of 1 years as on 31st March 2020. Documentary evidence - Certificate from the OEM stating the Partnership	The certificate required to establish the claim are generally not provided by OEMs, hence a self-declaration should suffice as a documentary evidence.	As per Tender Conditions



130	Clause 3.4 Point 2, Pre-qualification Criteria, Vol-1, Page 13	Does the functionality and features of the proposed SD BIM mentioned in the section 2.2.3 of TOR.	Since Section 2.2.3 is not available in the TOR the correct section to be informed for reference	Please refer Annexure-7 of Addendum-1
131	Clause 3.4 Point 4, Pre-qualification Criteria, Vol-1, Page 13	Is the proposed Common Data Environment (CDE) solution compliant with global BIM standards & ISO standards	BIM and CDE are globally used technologies and do not refer to the norms of ISO standards. Global BIM standards are the only reference for BIM and CDE vendors for compliance. Hence, this clause to be suitably modified to consider either of the two standards (BIM global standards or ISO standards)	As per Tender Conditions.
132	Clause 3.4 Point 5, Pre-qualification Criteria, Vol-1, Page 13	Does the proposed CDE product have at least 10 implementations in infrastructure projects including Metro/Railways/ Residential/ Commercial/ Institutional building projects etc. Documentary Evidence - Self declaration supported by Certificates from Client(s) of the OEM	We understand that the certificates required to be submitted as documentary evidence will be from the clients to which the OEM has directly provided the services.	Self-declaration by the bidder mentioning software version details, brief scope of work and Value of the eligible work(s), supported by relevant documents like work order, bill of quantities, bill wise details of payment received (certified by CA) and copy of final bill paid by client will also be considered.
133	Clause 3.1 Criterion i, S N Criteria, Vol-2, Page 5	Sub-criterion - Experience in SD BIM deployment and implementation. Sub Criterion Details and Marking Scheme - Experience in SD BIM deployment/implementations in infrastructure projects including Metro / Railways / Residential/ Commercial/ Institutional Building projects etc. during the last five (5) years as on 30.04.2020. Value of each project being more than Rs 500 crores. Documentary evidence - Copy of work orders & Completion Certificates / current status (in case work is ongoing) from the client / Auditors of the company. For ongoing projects to be eligible, progress attained should be 80% or more.	We understand that the term "Infrastructure projects" include the sub-sectors as notified by the Department of Economic affairs, ministry of finance, Government of India, vide Notification F.No.13/6/2009-INF dated 8th April 2016.	As per Tender Conditions.
134	Clause 3.1 Criterion i, S N Criteria, Vol-2, Page 5	Sub-criterion - Experience in SD BIM deployment and implementation. Sub Criterion Details and Marking Scheme - Documentary evidence - Copy of work orders & Completion Certificates / current status (in case work is ongoing) from the client / Auditors of the company. For ongoing projects to be eligible, progress attained should be 80% or more.	Implementation Completion certificate from the client is a substantial proof for establishing the credibility. Therefore the clause for documentary evidence should be modified to include either of the documents (BIM implementation completion certificate or Work order).	As per Tender Conditions.
135	Appendix VIII, Technical Evaluation Criteria, Vol-2, Page 134	Minimum man months for Project director(OSO) is mentioned as 36 man-months while in volume 3 (page 4) of the tender document it is 48 man-months	The entry against Project Director (OSO) for man-months on page 4, Volume 3 of the tender document should be corrected to 36 man-months	Please refer Annexure-8 of Addendum-1
136	Clause 3.1, Technical Evaluation Criteria, Vol-2, Page 9	Project director cum team leader (OSO) Minimum qualification - B.Tech/BE/Project director cum team leader (OSO) Minimum qualification - B.Tech/BE	The candidate for the position of project director should have skills of handling large teams, leadership, leading projects in construction sector, etc. Depth and quality of Experience for this position is far more important than the educational qualification. The minimum qualification criteria to be revised to - Minimum qualification - B.Tech/BE/Diploma	As per Tender Conditions.
137	Clause 3.1, Technical Evaluation Criteria, Vol-2, Page 9	Project director cum team leader (OSO) Minimum post qualification professional experience - 20yrs	The Minimum post qualification experience required should be reduced to 15yrs	As per Tender Conditions.
138	Clause 3.1, Technical Evaluation Criteria, Vol-2, Page 9	Metro Rail Projects are large capital projects with long gestation period involving multiple stakeholders. It is imperative to have a robust Project/ Program Management team for Identification of key Time & Cost levers and specific recommendations to meet the project objectives. 1. Specific interventions in the means & methods of construction resulting in enhanced speed of construction to complete project within time and cost constraints. 2. Interpretation of reports and raising alerts along with recommending suitable measures, 3. Automated, forward looking MIS framework to enable quick decision making. 4. A greater co-ordination among various stakeholders due to adherence to a pre-defined meetings framework. 5. Continuous independent and objective point-of-view on the project	We suggest to add positions to meet the requirements of the project management for the Metro Rail projects. 1 position for "Senior Manager- Metro Rails Project" at Lucknow with minimum 10 yrs experience in infrastructure projects management, having post graduate in construction management from a reputed institute. Certified PMP. 1 position each at Kanpur and Agra for "Consultant Project Management" for MIS and schedule with minimum 5 years of experience in infrastructure domain with BE/ B.Tech and Post graduation.	As per Tender Conditions.



139	Clause 3.1, point 4, Evaluation Criteria, Vol-2, Page 10	CDE Specialist Minimum post qualification professional experience - 10yrs Relevant experience & eligible assignments - Minimum 5 years of BIM collaboration / CDE implementation experience.	Common data environment is a relatively new subject compared to BIM and has even lesser applications than BIM in the Indian construction industry. Hence the specialist in this field are also limited. The minimum professional experience criteria put forth in the RFP is expected to restrict the availability of professionals for this project. The criteria should be revised to - Minimum post qualification professional experience - 5yrs Relevant experience & eligible assignments - Minimum 3 years of BIM collaboration / CDE implementation experience.	As per Tender Conditions.
140	Clause 3.1, point 6, Evaluation Criteria, Vol-2, Page 10	Metro Rail expert - Minimum educational qualification - B Tech/ BE in Civil Engineering	Metro projects involves multi-disciplinary work and requires command on fields other than civil as well. The criteria of civil engineering qualification may restrict some highly skilled and experience people from contributing to this project. Equivalent engineering disciplines like mechanical, electrical, electronics etc. should also be considered acceptable for this position.	As per Tender Conditions.
141	Clause 3.1, point 6, Evaluation Criteria, Vol-2, Page 10	Metro Rail expert - Minimum post qualification professional experience - 8yrs	Metro rail projects are specialized projects with challenges uncommon to other construction sectors and varying with different Metro projects. Since, the experience of Metro projects is a highly critical skill for this project the criteria should be able to adudge the capability of the candidate. The min experience of 8yrs appears less for such a critical position and should be increased to 12yrs while experience in metro projects to be increased to 8 years.	As per Tender Conditions.
142	Clause 3.1, point 6, Evaluation Criteria, Vol-2, Page 10	Metro Rail expert - Experience of at least 5 years in rail/ metro projects in technical position.	By the term "technical position" we understand that the candidate in his position has managed design teams, contractors executing the metro construction works, technical and general consultants, other technical teams.	Yes, your understanding is correct.
143	Clause 3.1 (criterion IV), Evaluation Criteria, Vol-2, Page 9-10	Minimum educational qualification of Resources required	BIM is a engineering design software and widely in use by Architectural firms and Architects in designing and implementing the projects. Since Architects have the maximum exposure and expertise in usage of BIM it will be beneficial for the project to utilize their experience in this critical project. Therefore the Minimum educational qualification to be modified to allow graduates in Architecture for all the key and supporting roles mentioned in the tender document	As per Tender Conditions.
144	Clause 3.1 (criterion IV), Evaluation Criteria, Vol-2, Page 11	CV evaluation criteria - b) Professional Training/ Attachments/ Membership (Weightage: 10%) - OEM certification relevant to BIM and CDE technology (1 mark per certification). - short term training course not less than a month relevant to BIM / CDE (1 mark per course) - Membership of local reputed institutions, foreign institutions/bodies (1 mark per institution, subject to maximum of 10marks)	The tender is around digital project management but there are no evaluation criteria' around project management capabilities of the bidders. Specialization in project management field should be a basic capability of the bidder and needs to be included in this criteria to make this evaluation more focused objective oriented. Certifications in project management from globally recognized institute (for example - PMP) should be added as a marking criteria for evaluating the CVs	As per Tender Conditions.
145	Clause 3.1 (criterion IV) and Appendix VIII, Evaluation Criteria, Vol-2, Page 11 & 134	Appendix VIII Point A of the table lists the Key experts of which evaluation shall be done for CVs (7nos) as defined in clause 3.1 (Page 11)	The key experts listed in Appendix VIII are critical to the execution of the project. The expertise and qualification of these candidates shall govern the successful delivery of the project. To further strengthen the evaluation framework and select the most suitable bidder through CV evaluation all the Key experts' CVs should be evaluated on the same lines as the 7 CVs are evaluated (clause 3.1 page 11). Adequate maximum marks to be allotted against the balance 12 key experts that are to be added to the evaluation	As per Tender Conditions.
146	Clause 2.1.7, Scope of work, Vol-2, Page 24	OSO will facilitate conduct of the training programs SD BIM and allied applications to UPMRC, the GC and its partner ecosystem	The following details are required - 1. Details on the number of participants to be provided / number of manuals to be prepared 2. How many trainings shall be conducted in one year	To be decided at implementation stage.
147	Clause 2.1.9, Scope of work, Vol-2, Page 25	OSO will monitor the usage of SD BIM and other tools by UPMRC and its partners for the period specified	Clarification required - What other tools are to be monitored?	It refers to SD BIM, CDE and other software tools included as a part of the solution proposed.
148	Clause 4.1, Scope of work, Vol-2, Page 98	T - Project start date i.e. the date of receipt of Letter of Acceptance of Award from Bidder Or Seven (14) days after issuance of Letter of award to Bidder by UPMRC whichever is earlier	Clarification required - 7 or 14?	Please refer Annexure-2 of Addendum-1
149	Clause 5, Scope of work, Vol-2, Page 94	Point 3 in the table - SLA parameter - Delay in any of the project milestones Description - Measured as the difference between the planned date for the milestone and the actual date of its completion Target - >7 days	Clarification required - Target Should be less than 7 days	Please refer Annexure-9 of Addendum-1
150	Clause A.7, Scope of work, Vol-2, Page 134-138	Appendix VIII Project manager - Infrastructure and networks	Clarification required - Qualification for this position not provided	Please refer Annexure-10 of Addendum-1
151	Clause B.7, Scope of work, Vol-2, Page 134-138	Appendix VIII Executive Assistant	Clarification required - Qualification for this position not provided	Bidder may select suitable candidate depending the the requirement of work.



		Planning Manager - Should be a post graduate in project management.	Planning manager is a role critical to the success of the project.. Project management is a sub-set of construction management, hence construction management is a better measure of capability and qualification of the candidate. And in order to adequately evaluate the project management capabilities of the candidate a certification in project management from global institute should be a must. Therefore, the educational qualification criteria to be modified to "Post graduate in construction management with certification in project management (PMP or equivalent) from globally recognized body"	
152	Appendix VIII (Table- (8)), Scope of work, Vol-2, Page 136	The candidate needs to be adept at not only in project management but also in the management of construction projects to be able to appreciate the nuances of construction works while planning the works		As per Tender Conditions.
153	Appendix VIII (Table- (8)), Scope of work, Vol-2, Page 136	Planning Manager - Experience of project planning in metro rail projects of 3+ years	We understand that the term "Metro rail projects" includes railway projects.	As per Tender Conditions.
154	Appendix VIII (Table- (9)), Scope of work, Vol-2, Page 136	Engineer Infrastructure & Networks- Graduate in Computer Science or Information Technology or Electronics Engineering and should have an experience of 5 years	Relaxation required - Along with Computer Science or Information Technology or Electronics Engineering, equivalent engineering branches may also be considered. As the metro rail involves works where expertise from all discipline of engineering comes into play. This will open up opportunity to attract competent and experienced personnel for the position.	As per Tender Conditions.
155	Clause 2.1.3 Point (f), Scope of work, Vol-2, Page 23	The OSO shall procure, as required, the appropriate licenses, agreements and permissions for Software, Hardware, methods, processes and systems used or incorporated into the Project	As per our understanding, the license procured by the bidder shall be on the Owner's name. If the licenses are to be procured on the bidder's name a clause needs to be added to the RFP for transfer of ownership from bidder to Owner. We also understand from the clause that the licenses are to be procured only for the duration of the project and the provision of cost for licenses in the financial proposal also to be done for the project duration and not beyond that. After the project is completed, the procurement, management, control and any activity pertaining to the software licenses used in the project shall be the responsibility of UPMRC	Licenses shall be in Owner's (UPMRC) name. Licenses are to be procured only for the duration of the contract period.
156	Clause 2.1.3 Point (d), Scope of work, Vol-2, Page 25	DDCs & EPC contractors will be developing BIM models of the buildings /structures/ systems during design phase either using 2D design drawings or directly working on 3D BIM platform from the design of elements and extracting 2D design drawings from 3D BIM models for usage at project site. EPC & other contractors/ DDCs shall be updating 3D BIM models during construction phases of the project for requirements for shop drawing preparation & 'as-built' model requirement. EPC & other contractors shall properly use	The mentioned point related to the implementation of 3D BIM doesn't provide the LOD details. Therefore, we assume that the provided model will be of LOD 300. Request confirmation or clarify if our understanding is not correct	As per Tender Conditions.
157	Appendix VIII, Vol-2	The deployment of resources as per the table mentioned in Annexure VIII	The deployment schedule of the resources to be modified to allow deployment as per requirement instead of a full time deployment for the period mentioned in the Appendix VII against each resource type	As per Tender Conditions.
158	Clause 2.1.1, Addition of Scope, Vol-2, Page 22	Point (a) - OSO will draft the Digital Project Strategy in line with the overall organizational strategy of UPMRC and around the needs of stakeholders Point (e) - The OSO shall assess, design and implement a Digital Project Strategy and Project Execution plan as well as the Project Organization	The work to be performed as per the tender clause shall require a specific skill set pertaining to Digital Strategy development. It is suggested that the Position "Expert - Digital strategy" to be added in the resource list. Since this shall define the execution of entire project, the resource must be used for evaluation.. The person should be having an experience of atleast 10 years. and worked on atleast 2 projects involving drafting the Digital Strategy for the organization.	As per Tender Conditions.
159	Clause 2.1.1 (d & j) 2.1.3 (a), Addition of Scope, Vol-2, Page 22	Point (d) - Identify Interfaces with corporate functions Point (f) - Define policies, roles and responsibilities, decision making, standards etc Point (j) - Setting up a performance measurement and monitoring model fully integrated into the digital project delivery environment. Point (a) - OSO will identify the gaps and re-engineer the processes and Policies to ensure that they are digitally enabled in the Digital Project Management Platform Activities like understanding, reviewing, designing, and re-designing the processes are typical characteristics of the project governance framework. This will also include mapping interfaces between different corporate functions and managing the stakeholders for smooth running of the project. The performance measurement system will take into account the KPIs defined in the processes as well as other parameters critical to the success of the project.	The work to be performed as per the tender clause shall require a specific skill set pertaining to Project Governance function. It is suggested that the Position "Consultant - Governance and organization" to be added in the resource list. Since this shall define the execution of entire project, the resource must be used for evaluation. Position details - 1 person at Lucknow for 6 months Criteria for this role should be - Education: Full time M. Tech/B. Tech/B.E. + full time Post graduation Certification: PMP Total Experience: At least 12 years Should have experience of more than 5 years in Governance & process design for large projects.	As per Tender Conditions.



160	Clause 2.1.2, 2.1.6, 2.1.7, Addition of Scope, Vol-2, Page 22 & 23	OSO will study the current Organizational structure of UPMRC in detail and then suggest changes (if any) required for achieving the objectives OSO will define the To-Be Organizational structure for the Design/ Build phase along with associated BIM and CDE Processes and Procedures OSO will also identify the training needs of UPMRC officers to contribute effectively to the organization. UPMRC realizes that its officers and entire partner Ecosystem covering General consultant, Contractors, Consultants, Engineers etc. need to be motivated to adapt IT and new way of working. Effective and Continuous Communication is the key to overcome resistance. OSO will prepare a comprehensive communication and change management plan. OSO will conduct Change Management workshops to gain acceptance for Digital project among UPMRC and its partners	Analyzing the organization structure and designing the same for achieving the project objectives, identifying the skill gap and training needs, Preparing a Change management plan and conducting change management workshops are critical activities that require expertise in the People and Change management field. We understand that such works can be delivered in the best possible way by a dedicated expert from the field of people and change management. Successful delivery of this role is crucial for the operations of UPMRC. as it will enable the workforce to perform to the changed environment. We suggest that a role focused on the People & change management should be added It is suggested that the Position "Consultant People and Change management" to be added in the resource list. Since this shall define the execution of entire project, the resource must be used for evaluation. Position details - 1 person at Lucknow for 6 months Criteria for this role should be - Education: Should have Bachelor's Degree from a reputed and recognized university or institutions and Post-Graduation in relevant discipline. Total Experience: At least 10 years Experience: 5+ Years' experience in conducting change management / trainings for leading organizations.	As per Tender Conditions.
161	Addition of Scope, Vol-2	In order to deliver the project as per the Project strategy the OSO should have the capability 1. to measure and analyze the project progress against the schedule baseline 2. Analyze the performance of consultant and contractors 3. Analyze the reports generated from the 5D BIM platform and develop insights for the client 4. Escalate issues and suggest corrective actions 5. Ensure adherence to the project schedule and budget and report deviations 6. Other works that fall under the purview of Project controls	We suggest that a role focused on the project controls work should be added It is suggested that the Position "Manager- Project Controls" to be added in the resource list. Since this shall define the execution of entire project, the resource must be used for evaluation. Position details - 1 person at Kanpur and Agra each for 48 months Criteria for this role should be - Education: Should have Bachelor's Degree from a reputed and recognized university or institutions and Post-Graduation in relevant discipline. Total Experience: At least 12 years in project management Certification: PMP or equivalent Experience: 8+ Years' experience in project controls domain	As per Tender Conditions.
162	Addition of Scope, Vol-2	In order to deliver the project as per the Project strategy the OSO should have the capability 1. To Manage the project budget and cost in line with the schedule 2. Identify the deviations in the cost schedule and escalate it to the client 3. Review the works of the contractor against the contractual terms 4. Review the claims put forth by the contractor on time and cost 5. Analyze the reports on cost generated by 5D BIM platform and provide insights to the client. The resources sought by UPMRC in the tender doesn't include any role to perform such tasks which are relevant to the delivery of the project.	We suggest that a role focused on the People & change management should be added. It is suggested that the Position "Consultant - Contract and cost management" to be added in the resource list. Since this shall define the execution of entire project, the resource must be used for evaluation. Position details - 1 person at Kanpur and Agra each for 48 months Criteria for this role should be - Education: Should have Bachelor's Degree from a reputed and recognized university or institutions and Post-Graduation in relevant discipline. Total Experience: At least 12 years in project management Experience: 5+ Years' experience in cost control / contract management domain	As per Tender Conditions.
163	Addition of Scope, Vol-2	In order to deliver the project as per the Project strategy the OSO should have the capability 1. To analyze and register the Risks pertaining to the execution of the project 2. Conduct Risk workshops for evaluating risks and developing the Risk mitigation plans 3. Prepare risk heat maps 4. Interpretation of reports generated from BIM and identifying the risk by application of Risk management principles and apprising the client	We suggest that a role focused on the Project Risk Management should be added It is suggested that the Position "Project Risk Management Expert - to be added in the resource list. The role will ensure that project risks are identified early, analyzed and appropriate response strategies are planned. Since this shall define the execution of entire project, the resource must be used for evaluation. Position details - 1 person at Lucknow for 6 months Criteria for this role should be - Education: Should have Bachelor's Degree from a reputed and recognized university in Civil/ Mechanical/ Electrical or institutions and Post-Graduation in Construction Management. Total Experience: At least 10 years in project management.	As per Tender Conditions.
164	Clause 6, SCC, Vol-2, Page 145	Point b - This limitation of liability shall not affect the Consultants' liability, if any, for damage to Third Parties caused by the Consultants or any person or firm acting on behalf of the Consultants in carrying out the Services.	We request to remove this clause from the RFP	As per Tender Conditions.
165			The following clause to be added to the RFP document - "Any product of services shall be for the internal use of the Client and shall not be disclosed to any third party without prior written consent of the Bidder. Client shall not quote the Bidder's name or reproduce the Bidder's logo in any form or medium without the Bidder's prior written consent."	As per Tender Conditions.
166	Clause 2.1, Bid Submission, Vol-1, Page 4	The tenderer shall submit his proposal in a sealed envelope...	Due to the travelling restrictions brought up on by COVID pandemic, it would be in the best interests of all participating bidders to allow online submission of bid documents. This would also help in reducing UPMRC's effort invested in checking and validating huge volumes of papers	As per Tender Conditions.
167	Clause 7, Bid Submission Vol-1, Page 2	Bid submission date - 23.06.2020	Due to restrictions brought by COVID-19 and the documentation requirements, it is requested to extend the bid submission date to 31 July 2020 so that all interested parties get adequate time to collect and submit required documents.	Please refer Annexure-1 of Addendum-1
168	Clause 2.3, Scope of work, Page 36, Vol-2	The Agency shall be responsible for sizing and provision of the IT infrastructure including the servers, storages, back up, networking, security, operating.....	Is there an existing back up policy available. At what frequency the data to be backed up	Bidder has to make provision of data backup. Frequency to be decided during implementation stage.



169	FRS, Page 68, Vol-2	FUNCTIONAL REQUIREMENTS - ENGINEERING COLLABORATION SYSTEM: Ability to host the system on the physical premises as well on the cloud	Please clarify if the system to be hosted on premise. If yes, clarification on the requirement of server rooms, Air conditioning, security and protection of the servers etc. to be provided. Is UPMRC already using any specific cloud service.	Bidder has to propose the solution
170	Vol-2	Enterprise related	Does UPMRC has any ERP implemented. If yes we believe the ERP integration is excluded from the scope of the bidder.	ERP integration is not envisaged at this stage.
171	Appendix V, GCC, Page 115, Vol-2	"Affiliate" means any company or entity majority owned or controlled by the consultant, by a Member or by a Sub-Consultant to the Consultant	Request to modify the same term "Affiliate" to "Affiliates in India"	As per Tender Conditions.
172	Clause 6, SCC, Vol-2, Page 145	Limitation to liability	We request to include that to limitation to liability be restricted to maximum one time the fees paid to the bidder under this agreement.	As per Tender Conditions.
173	Clause 3.6, GCC, Vol-2, Page 123	The Consultants (i) shall keep accurate and systematic accounts and records in respect of the Service hereunder, in accordance with internationally accepted accounting principles and in such form and detail as will clearly identify all relevant time charges and cost, and bases thereof (including such bases as may be)	The Consultants (i) shall keep accurate and systematic accounts and records in respect of the Service hereunder, in accordance with internationally accepted accounting principles and in such form and detail as will clearly identify all relevant time charges and cost, and bases thereof (including such bases as may be)	As per Tender Conditions.
174	Clause 6.4 f, GCC, Vol-2, Page 129	Liquidated Damages - In case of delays the financial Penalty will be imposed at the maximum of 10%	Based on the industry practice we suggest to limit LD up to a maximum of 5%	As per Tender Conditions.
175	Clause Section 3.2 Volume-1 Section-3 Request for Pre-qualification Page No: 11	Professional Strength	Please confirm, if OEM's experience can be considered while evaluating the experience of the Bidder under this Tender Under Section 3.2 (3), please confirm if there is any specific format for OEM issued certificates.	Only if OEM is a bidder or part of JV, No specific format is prescribed for OEM certificates.
176	Volume-1 Section-3 Request for Pre-qualification Page No: 13	OEM Qualifications	Also, please clarify whether the experience of OEM's affiliates and the parent company will be considered while evaluating the experience of OEM under this Section.	No.
177	Section 2.2.2.10.4, RFP Document Volume 2 Appendix-II (Terms of Reference) Section-1 (Scope of Work) Page No.34	Develop; System Documentation	Under this clause, the relevant documents are required to be maintained and submitted by the Bidder, which includes entire source codes as applicable in respect of programs, kindly confirm whether the reference of source code under this Section refers to source code of the COTS (products) or the solution. Please note that the title and source code of the standard software (COTS) is always vested with the OEM. Also, note that the license to access and use the software shall be in accordance with OEM's software license and maintenance and support agreement. Please re-confirm this understanding and amend the clause, if required.	Source code requirement refers to any custom development done by the bidder for meeting the requirements. COTS software's source code is not expected.
178	Section 2.6 (b) (a), RFP Document Volume 2 Appendix-II (Terms of Reference) Section-1 (Scope of Work) Page No. 41	Warranty support for deployed IT Infrastructure	Does this pertain to SD BIM & CDE COTS Software OEM's? or Does this pertain to Hardware Infrastructure	Clause is self explanatory.
179	Section 2.6 (b) (a) (iv) & Vol. 3 APPENDIX - XVIII-3-II Page 10, Note No.6 RFP Document Volume 2 Appendix-II (Terms of Reference) Section-1 (Scope of Work) Page No.42	It has been stated that during the warranty and contract period if required, the additional licenses/software are provided at no additional cost. & In addition to above, the Bidder shall procure number of licenses sufficient to meet Requirement of OSO. In case UPMRC is of the opinion that number of Licenses proposed/ procured by tenderer/applicant are not adequate to meet the requirements, the tenderer/applicant shall be bound to procure additional licenses as instructed by UPMRC without any additional cost to UPMRC. Decision of UPMRC in this regard shall be final and binding on the tenderer/applicant.	The bill of material for COTS software is already provided in Vol. 3 APPENDIX - XVIII-3-II, Page No: 10. Therefore any additional licenses if required should be procured by UP Metro additionally. Please clarify.	In Vol. 3 APPENDIX - XVIII-3-II, mentioned licenses the bidder has to provide free of cost. Any additional license required by GC/UPMRC/ Contractor shall be procured by GC / UPMRC / Contractor at their own cost.



<p>Section 2.6.2 (C), RFP Document Volume 2 Appendix-II Terms of Reference) Section-I (Scope of Work) Page No.48</p>	<p>Compliance to SLA</p>	<p>Under the note section, it has been provided that the Employer may engage an independent auditor to audit/certify some or all standards/ processes. Please confirm whether this clause is wide enough to include the OEM's for SD-BIM /CODE - COTS If yes, kindly clarify the scope of the Audit and confirm that the Employer shall bear the cost of the Audit.</p>	<p>Clause is self explanatory.</p>
<p>Clause 3.4 OEM Qualifications: (S.No.2), Volume 1, Page - 13</p>	<p>Does the functionality and features of the proposed SD BIM solution substantially meet the functional requirements as mentioned in the section 2.2.3 of TOR.</p>	<p>Please quantify "substantially". Does this mean 100% compliance or partial compliance is acceptable? If partial, please quantify</p>	<p>The clause is self explanatory. The proposed solution should substantially meet the FRS so as to be able to satisfactorily meet intent and requirements of the tender.</p>
<p>Volume 2, Page-4, Section 3.1</p>	<p>Evaluation of Technical Proposal</p>	<p>"Section 2: Functional Requirement Specifications (FRS) is critical criteria for selection of technology for both SD BIM and Collaboration platform (Common data environment) and this the most important criteria for the success of this project. But no marks and no weightage have been allocated to FRS. On the other hand, 45% weightage has been allocated to 3.1 Evaluation of Technical Proposals - IV" (Qualifications, experience and competence of the Key Staff to be deployed for the Assignment). We request you to add FRS as another criterion in 3.1. Evaluation of Technical Proposals and allocate at least 20% weightage to FRS and adjust it against the weightage assigned to Criteria No. IV from 45% to 25%</p>	<p>As per Tender Conditions.</p>
<p>2.Instructions to the Applicants/ Tenderer: S.no 2.7, Volume 1, Page-6</p>	<p>No tenderer / applicant can be a sub-consultant which is not responsible for the contract, while submitting a proposal individually or as a partner in a JV/ Consortium in the same selection process</p>	<p>Can OEM's be sub-contractors to multiple bidders (Prime/JV/ Consortium)? Request to include the following options</p>	<p>OEM can be subconsultant to multiple bidders but in case they are a part of the JV then they can be a part of only one JV.</p>
<p>3.4.OEM Qualification: S.No : 1 & S.No. 5, Volume 1, Page-13</p>	<p>"Self-declaration supported by Certificates from Client(s) of the OEM"</p>	<p>Project detailed description along with Customer contact details (Telephone, Email ID) for firms which have implemented SD BIM/ CDE. UP Metro can verify directly with such users. OR Project detailed description along with publicly available documentation / Information like success stories/case studies legally cleared by the customer or invoice copies or project expenditure information available in public domain that satisfactorily authenticate the project Or Project detailed description along with Customer contact details (Telephone, Email ID) and purchase order copy / user sign off document for orders received by OEM through prime vendors/ System Integrator from firms which have implemented SD BIM/ CDE. Or Self-Certification by the OEM mentioning software version details, brief scope of work and Value of the Eligible work(s) pertaining to this pre-qualification clause, shall be submitted under the signature of an official of the rank of Director of the Board of Directors or above, of the OEM and endorsed by external auditor of the OEM"</p>	<p>Self-declaration by the bidder mentioning software version details, brief scope of work and Value of the Eligible work(s), supported by relevant documents like work order, bill of quantities, bill wise details of payment received (certified by CA) and copy of final bill paid by client will also be considered.</p>
<p>Clause 4.2 (iii) User and Identify Management, Volume 2, Page-86</p>	<p>"The identified solution should support both on premise and cloud implementation, or a hybrid of the two."</p>	<p>"Is 100% cloud or alternatively 100% on premise solution acceptable? In case of cloud-based application, we request you to specify that the cloud service provider should be certified as per Ministry of Electronics and IT (MeitY), Govt. Of India norms. This pertains to residency of main data server and DR server (not to be mistaken with Caching Server) within Indian territory, as also confirming other critical criteria like DATA SECURITY, PRIVACY and SAFETY. If vendor is proposing cloud-based solution then minimum SLA for uptime should be 99.9% ". This is mandated by the Government of India for all government organizations using cloud-based applications. In case of cloud-based applications, the IT infrastructure component of this bid becomes substantially redundant, saving huge amount of hardware procurement, maintenance and IT administrative expenses for UP metro."</p>	<p>Bidder has to propose the solution</p>



<p>186</p> <p>APPENDIX • XVIII-3-II (Note 5) - S.No.2, Volume-3, Page-10</p>	<p>Common Data Environment (E.g. Autodesk BIM 360 or similar)- 10 Licenses</p>	<p>CDE is an Enterprise Wide Digital Platform owned and facilitated by owner operator (UP Metro) for entire project lifecycle from Design through Construction and Handover followed with O&M. Therefore all stakeholders, Internal (UP Metro) and External (GC, DDC, EPC etc.) must have mandatory access to the CDE for all project related documentation, collaboration, transmissions & submittals. Design review, Verification and co-ordination for the success thus becoming single source of truth for the entire project as per global best practices and ISO 19650 standards. This is critical for the success of the project.</p> <p>RPP mentions only ten licenses of CDE users, kindly make it at least 200 (100 each for Kanpur & Agra Metro) user licenses to incorporate all stakeholders including contractors, Detailed Design Consultants, Owners support office and Chief Project Managers of UP Metro</p>	<p>There will be about 10 Contractors + 1 No. GC + 2 No. DDC (1 each for Kanpur and Agra). Bidder is required to estimate their solution sizing accordingly.</p>
<p>187</p> <p>APPENDIX • XVIII-3-II (Note 5) - S.No.3, Volume-3, Page-10</p>	<p>3D Modeling Software (E.g. Revit or similar)</p>	<p>"The following 3D Design and Analysis software already being used by UP Metro and your contractors: A) OpenRail Designer B) STAAD</p> <p>Request you to add these two tools in your bill of material as part of 3D Modeling Software in addition to Revit.</p> <p>It is also strongly recommended to include the following tools in the BOM as part of 3D Modeling Software in addition to Revit:</p> <p>A. Geotechnical Analysis & Design including Tunnel and Storage; Plaxis (used by all Metro Organizations in India and abroad) B. Bridge Design and Analysis: E.g.: RM Bridge and Open Bridge Modeler. C. Reality modeling using drone-based survey for planning and construction monitoring; Context capture (in Use at Nagpur Metro, MMRDA Metro Projects, MSRD, IRCON, Northern Railway)</p>	<p>As per Tender Conditions.</p>
<p>188</p> <p>APPENDIX • XVIII-3-II (Note 5) - S.No.3, Volume-3, Page-10</p>	<p>3D Modeling Software (E.g. Revit or similar)</p>	<p>To the best of our knowledge UP metro is not a registered user of Trimble Vico office. Also, this is not a proprietary procurement tender for Trimble Vico office but an open competitive tender. Hence it is strongly recommended to put the software tool description as "3D BIM software" and not mention the name of specific software brand</p> <p>"Please note : RPP Seeks compliance to ISO standards for OEM pre-qualification. The relevant ISO standard for CDE is ISO 19650. ISO 19650 articulates Requirement of Asset Information Model for built assets to extend the benefits of BIM for Operations and Maintenance.</p> <p>RPP also clearly specifies the Requirement of collecting and managing the asset information "tags" in Vol1 and Vol2</p>	<p>Any 3D modelling, CDE and 5D BIM satisfactorily meeting the tender requirements.</p>
<p>189</p>	<p>"A) Vol.1: 3.4 OEM Qualification: S.No.4 B) Vol.2: Point no. E, Page no. 27 C) Vol 2: Point no "i", page no. 31 D) Vol 2: Point no "ii", page no. 32 E) Vol.2 Page no. 73; "Tag Asset Management" F) Vol 2 Page no. 101; D: Exclusion i: Asset Management "</p>	<p>"A) Vol.1: 3.4 OEM Qualification: S.No.4 B) Vol.2: Point no. E, Page no. 27</p> <p>To improve the safety and speed of inspections and maintenance with the ability to see asset information within the context of 3D models during operations C) Vol 2: Point no "i", page no. 31 ... "asset" Information's spreadsheet for facility management, BIM & GIS International best practices D) Vol 2: Point no "ii", page no. 32 Check and assist the contractors in set up of BIM based asset management systems which will be used for maintaining all the records related to the project during the operation stage. E) Vol.2 Page no. 73; "Tag and Asset Management" F) Vol 2 Page no. 101; D: Exclusion i: Asset Management"</p>	<p>As per tender conditions, Asset Management is not a part of the scope of work required under this tender. Level of asset details required in the models will be decided during implementation stage.</p>



190	Section 2.6.2., Volume 2, Page no. 38/39	" If so, required by UPMRC during the implementation and operations of Digital Project Management Platform using 5D BIM; asset information's spreadsheet and asset information tagging, received from the contractors/ suppliers of equipment as well as plant & machinery shall be incorporated in the 'As-Built' 3D BIM models for the use of O&M/ Facility management by UPMRC team"	"Please clarify, who handles updating of as built 3D BIM models for the use of O&M/ Facility management. Our opinion based on implementation experience at Metro rail organizations worldwide Updation of as built 3D models in "native" Revit" format as envisaged is a very risky and non-industry standard approach because of large size models. Its extremely difficult to update as-built 3D models and so because the "Revit" file formats keep changing every two years, which means UP Metro needs to correctly employ/contract another agency to update Revit models every time during O&M. We suggest UP Metro use the neutral "Open source" models for e.g.: IModel. The advantage of this is that you can later add additional attributes/ condition at the time of O&M/ facility management using simple synchronization via a mobile app or a spreadsheet.	Facilities Management is not a part of the scope of work required under this tender.
191	Clause 3.2 Professional Strength, Volume 1 Page No 11	"Does the Applicant have more than 5 years of experience in Building Information Modelling (BIM) services including 3D BIM/ 4D-5D BIM services, implementation and support as on as on the due date of submittal"	"As per Volume 1: The scope of work will broadly include Supply, Implementation and Support of Digital Project Management Platform including 5D-BIM (5-Dimensional Building Information Modeling) & Common Data Environment (CDE) solution. An Owner's Support Office (OSO) shall be created by the Agency which will support UPMRC in implementing 5D BIM. As envisaged in the RFP and as per ISO 19650 standards, Common Data Environment becomes a platform for BIM. Whereas professional strength being looked for is limited to SDBIM and not for CDE, thus missing a critical part for pre-qualification. We recommend that this pre-qualification be amended to include Common Data Environment experience. This will ensure you get the right Bidder with all the experience required for broad scope of work as articulated in the RFP"	As per Tender Conditions.
192	Clause 3.3 BIM Implementation Experience, Volume 1, Page no 12	Has the Applicant substantially completed at least one 5D BIM implementation in infrastructure projects including Metro/ Railways/ Residential/ Commercial/ Institutional building etc, having project cost not less than INR 500 Crores during last 5 years as on the due date of submittal* Note: The Applicant should have experience in green field implementations of 5D BIM projects (work done only on upgrades, add-on solutions, or maintenance or operational support shall not be deemed adequate for qualification) on the proposed solutions"	"As per Volume 1: The scope of work will broadly include Supply, Implementation and Support of Digital Project Management Platform including 5D-BIM (5-Dimensional Building Information Modeling) & Common Data Environment (CDE) solution. An Owner's Support Office (OSO) shall be created by the Agency which will support UPMRC in implementing 5D BIM. As envisaged in the RFP and as per ISO 19650 standards, Common Data Environment becomes a platform for BIM. Whereas BIM Implementation experience being looked for is limited to SDBIM. To reach 5D one must go through process of 3D and 4D BIM. To be explicit, we request you to change the 5D BIM to "3D, 4D and SDBIM and CDE". Otherwise, 5D BIM software (Desktop Cost Estimation software) implementer also will become eligible without an adequate understanding of CDE"	As per Tender Conditions.
193	Criterion i: Specific experience of the firms relevant to this type of Assignment. S. No. 1 Volume 2, Page no 5	Bidder having 3 or more deployments/implementations will get 100% of the maximum marks for this sub-criterion. Other bidders having lesser number of deployments / implementations will be awarded with respect to 3, based on proportion of number of deployments / implementations carried out/being carried out. For example, if bidder A, B & C have 4, 3 and 2 nos of deployments / implementations respectively, then they will be awarded marks under this sub criteria as under- Bidder A = 100% Marks (since no. of deployments done >3) Bidder B = 100% Marks (Since no. of deployments done=3) Bidder C = 0.67 x100 =67% Marks (Proportion= No. of deployments done/3"	"As per Volume 1: The scope of work will broadly include Supply, Implementation and Support of Digital Project Management Platform including 5D-BIM (5-Dimensional Building Information Modeling) & Common Data Environment (CDE) solution. An Owner's Support Office (OSO) shall be created by the Agency which will support UPMRC in implementing 5D BIM. As envisaged in the RFP and as per ISO 19650 standards, Common Data Environment becomes a platform for BIM. Whereas BIM Implementation experience being looked for is limited to SDBIM. To reach 5D one must go through process of 3D and 4D BIM. To be explicit, we request you to change the 5D BIM to "3D, 4D and SDBIM and CDE". Otherwise, 5D BIM software (Desktop Cost Estimation software) implementer also will become eligible.	As per Tender Conditions.
194	"FUNCTIONAL REQUIREMENTS MODELING, ANALYSIS, DESIGN, 4D-5D BIM AND VISUALIZATION SOLUTION: SL No 214" Vol 2, Page-63	Ability to create Line of Balance (LOB)/ Flowline scheduling.	This feature proprietary to certain tools like Vico and is not an industry standard for linear projects like Rail. It is recommended to remove this feature. Its also suggested to go for a tool that uses an industry-standard critical path method (CPM) for scheduling.	Please refer Annexure-11 of Addendum-1
195	DESIGN, 4D-5D BIM AND VISUALIZATION SOLUTION: SL No 216, Vol 2, Page-63	Ability to Line of Balance (LOB)/ Flowline, seamlessly linking of Gantt Chart & Network view for visual schedule optimization.	This feature proprietary to specific tools like Vico and is not an industry standard for linear projects like Rail. It is recommended to remove this feature. It is also suggested to go for tool that uses an industry-standard critical path method (CPM) for scheduling.	Please refer Annexure-11 of Addendum-1



196	APPENDIX * XVIII-3-1, Volume-3, Page No-4,5,6,7	COST OF PROFESSIONAL PERSONNEL/ SUPPORTING STAFF/ NON PROFESSIONAL STAFF	It seems the loading of resources as illustrated on Page no. "4,5,6,7" is very high from our own global experience of similar SDBM/ CDE projects. It would help to know the basis and premise of this resource loading	As per Tender Conditions.
197	General	Definition of CDE is missing	Please explicitly definition as per ISO 19650- 1 &2 standard	As per Tender Conditions.
198	General	Development of BIM Standards	Please clarify who is responsible is to define BIM standards as per ISO 19650 to UP Metro. This includes EIR, A/R, O/R, B/P (pre-contract & post-contract); P/M & A/M, M/D/P and T/D/P, Asset data dictionary / Classification, Asset Information Standards	Bidder in consultation with UPMRC shall define the BIM standards for UPMRC.
199	General	4D BIM	"4D BIM is a steppingstone to build 5D. There is mention of very few functionalities of 4D BIM and its critical technical requirements, and it's most suited a specific SD - Vico which has limited capabilities. We request to allow us to submit a certain set of technical requirements for 4D BIM, which will benefit UPMRC."	The FRS mentions 4D and 5D BIM capabilities. Bidders may propose any software solutions meeting the FRS and other requirements of the tender.
200	Clause 1.2, Volume-2, Page 21	Track 1: Owner Support Office	Please clarify if there will Bidder will be required to set up two Separate OSO for Agra or Kanpur or a centralized OSO will be setup. Please confirm if the location will be Lucknow. Also, will the GC for both the metro project will be same and Different.	Only one OSO will be set up to look after both Agra and Kanpur projects. GC would be same for both the projects.
201	Clause 2.2.2.2, Volume-2, Page 27	these review solutions should be able to create intelligent 3D pdf's that can be used for review in absence of the originator software.	We understand the goal of Design review and specific Requirement is to provide UPMRC capability to review and inquire and markup the 3D models. We recommend that 3D PDF is one of the options to do the same, there are other Open formats like IModel which allow users to review and markup models without the need of 3D models and Bidder should be provided options to choose the best of class technology to meet the Requirement.	Please refer Annexure-12 of Addendum-1
202	Section 2: Instruction To Tenderer Clause no. 2.24., Page 7	Tenderer / applicant shall deliver their completed proposals along with the bid by stipulated due date at the address	Considering COVID 19 conditions, printing, binding and timely submission may not possible, we request to accept complete proposal in PDF / DVD / Online Submission.	As per Tender Conditions.
203	Vol.1- Section3: Request for Pre-Qualification 3.2. Professional Strength, Page 11	Has the Applicant proposed deployment of at least 5 OEM certified 5D BIM software professionals. Self certified list & copies of the OEM issued certificates of the team members to be provided by the Bidder.	OEMs do not issue specific certificate for 5D BIM. We request UPMRC to consider the certificates issued by OEM which certify professional specialisation for 5D OEM product/ software as meeting the requirement.	As per Tender Conditions.
204	Vol.1- Section3: Request for Pre-Qualification 3.3. BIM Implementation Experience -1, Page 12	Has the Applicant substantially completed at least one 5D BIM implementation in infrastructure projects including Metros/ Railways/ Residential/ Commercial/ Institutional building etc. having project cost not less than INR 500 Crores during last 5 years as on the due date of submittal.* Note: The Applicant should have experience in green field implementations of 5D BIM projects (work done only on upgrades, add-on solutions, or maintenance or operational support shall not be deemed adequate for qualification) on the proposed solutions.	We request UPMRC to revise this criteria as Has the Applicant substantially completed at least one 4D or 5D BIM implementation in infrastructure projects including Metros/ Railways/ Residential/ Commercial/ Institutional building etc. having project cost not less than INR 500 Crores during last 5 years as on the due date of submittal.* Note: The Applicant should have experience in green field implementations of 4D or 5D BIM projects (work done only on upgrades, add-on solutions, or maintenance or operational support shall not be deemed adequate for qualification) on the proposed solutions.	As per Tender Conditions.
205	Vol.1- Section3: Request for Pre-Qualification 3.3. BIM Implementation Experience -1, Page 12	Has the Applicant substantially completed at least one 5D BIM implementation in infrastructure projects including Metros/ Railways/ Residential/ Commercial/ Institutional building etc. having project cost not less than INR 500 Crores during last 5 years as on the due date of submittal.* Note: The Applicant should have experience in green field implementations of 5D BIM projects (work done only on upgrades, add-on solutions, or maintenance or operational support shall not be deemed adequate for qualification) on the proposed solutions.	Greenfield Projects of INR 500 Crores on 5D BIM are rear one, System Integrator of OEMs can share 5D BIM implementation experience from OEM's Global projects. We request UPMRC to consider the experience Certificates of OEM's Projects completed substantially for 5D BIM implementation as meeting the requirement.	As per Tender Conditions.
206	Vol.1- Section3: Request for Pre-Qualification 3.3. BIM Implementation Experience -2, Page 12	Is the Applicant (directly or in consortium with Agencies) a value added reseller or certified system integrator or agency with the principal of the OEM solutions proposed for a minimum period of 1 years as on 31st March 2020. Certificate from the OEM stating the Partnership. In case of JV/ Consortium, at least one of the member must fulfil the criteria.	We request UPMRC to revise as follows: Is the Applicant (directly or in consortium with Agencies) a value-added reseller or certified system integrator or agency with the principal of the OEM solutions proposed for a minimum period of 6 months as on 31st May 2020. OR Self-declaration from bidder stating past experience of transacting with the OEM for BIM software purchase either directly or through a OEM authorized value added reseller.	As per Tender Conditions.



207	Vol.1- Sections-3: Request for Pre-Qualification for Pre-Qualification -1, page 13	Does the proposed Commercial Off The Shelf (COTS) 5D BIM products (i.e. each of the COTS software proposed as part of proposed BIM solution) have at least 10 implementations in Infrastructure projects including Metros/ Railways/ Residential/ Commercial/ Institutional building project etc. Self declaration supported by Certificates from Client(s) of the OEM	OEMs can share 5D BIM certification from their Global experience. We request UPMRC to for revision to at least 5 implementations and add qualification criteria for Infrastructure projects to 1 implementation in India to promote "Ama Nihbar Bharat".	As per Tender Conditions.
208	Vol.1- Sections-3: Request for Pre-Qualification for Pre-Qualification, Page 13	General	Since OEMs are not involved directly in Projects, we request UPMRC to consider OEM's value added reseller or certified system integrator or agency with the principal of the OEM solutions as consortium partner for the bid and also claim experience of OEM's.	As per Tender Conditions.
209	Vol.1- Sections-3: Request for Pre-Qualification for Pre-Qualification -5, Page 13	Does the proposed CDE product have at least 10 implementations in Infrastructure projects including Metros/ Railways/ Residential/ Commercial/ Institutional building projects etc. Self declaration supported by Certificates from Client(s) of the OEM. Each of the OEM (s) of the proposed CDE solution must fulfil the criteria.	OEMs can share 5D BIM certification from their Global experience. We request UPMRC to revise qualification for infrastructure projects to 5 implementations with minimum 1 implementation in India to promote "Ama Nihbar Bharat".	As per Tender Conditions.
210	Vol. 2 - Terms of Reference: Scope of Work 2.2.2.10.2 System Requirement Study, Page 33	The Bidder/Agency must perform detailed assessment of the business requirements and IT Solution requirements as mentioned in this RFP.	UPMRC shall confirm following assumptions Number of Users for Agra - 100 nos Kampur - 100 nos	There will be about 10 Contractors + 1 No. GC + 2 No. DDC (1 each for Kampur and Agra). Bidder is required to estimate their solution sizing accordingly.
211	Section 1 / 5, page 1	The Tenderer (s) / Applicants may be a single entity, JV or a consortium	We understand that the 'consortium' will be of unincorporated type i.e it need not be registered as a legal entity. Kindly clarify.	As per Tender Conditions.
212	Volume 1 / Section 1 / 7: Key Details, Page 2	INR 5 Million (50 Lakhs) in the form of Demand Draft / Bank Guarantee.	We request you to reduce the EMD amount to INR 15 Lakhs as it is very high as recovery from lockdown situation is yet to happen.	As per Tender Conditions.
213	Volume 1 / 7: Key Details, Page 2	Date & time of Submission of Tender 23.06.2020 @ 15.00 hrs	We request you to allow at least 30 days for submission of proposal from the date of issue of the minutes of pre-bid meeting so as to allow the bidders to take the minutes of prebid meeting into consideration and also to enable to form the consortiums. As the submission is in physical mode, the courier services may also require additional time for service as situation of lockdown is not normal yet.	Please refer Annexure-1 of Addendum-1
214	Volume 1 / Section 2 / 2.28, Page 8	The bid guarantee / EMD in the form of Demand Draft / Bank Guarantee from a Scheduled Commercial Bank in India....	In case of Consortium, we request that the bid guarantee / EMD be accepted in name of the lead party or individual members of Consortium be allowed to submit respective DD/EMD meeting the total amount. Obtaining the BG in name of the Consortium is very difficult considering tender is not awarded.	As per Tender Conditions.
215	General	General	LOCATION OF PROVIDING SERVICES? Whether OSO will be in UPMRC office? How to integrate servers / connectivity to be thought of? Also if OSO has to be set up in leased office space - better UPMRC negotiates the lease of suitable space with proper connectivity availability etc and provides the space to set up the OSO	As per Tender Conditions.
216	Volume 1 / Section 2 / 3.3, Page 12	Has the Applicant substantially completed at least one 5D BIM implementation in infrastructure projects....	We understand that 'substantially completed' means progress of 80% or more. Kindly clarify.	Your understanding is correct.
217	Volume 1 / Section 2 / 3.4, Page 17	Technical proposal should cover in detail the following: a) The background and experience of applicant (and associated groups) including a list of past and present work of a nature similar to this project in the last five years	Does the proposed Commercial Off The Shelf (COTS) 5D BIM products (i.e. each of the COTS software proposed as part of proposed BIM solution) have at least 10 implementations in Infrastructure projects including Metros/ Railways/ Residential/ Commercial/ Institutional building project etc.	As per Tender Conditions.
218	Volume 2 / 1.1, Page 3	Technical proposal should cover in detail the following: a) The background and experience of applicant (and associated groups) including a list of past and present work of a nature similar to this project in the last five years	We request you to extend to last 10 years.	As per Tender Conditions.
219	Volume 2 / Section 1, 1.1, Page 20	An Owner's Support Office (OSO) shall be created by the Bidder/Agency which will support UPMRC in implementing 5D BIM....	Kindly clarify whether the office space will be provided by UPMRC or whether the tenderer needs to provide the same alongwith the operation & maintenance costs towards same? If yes, for what size team should the same be considered. It would be preferable if UPMRC provides the same in location with required connectivity for the IT enabled environment. Also in leased environment, it would be difficult to stop the owner from asking to vacate the office space - having done all the setup it would be difficult to move.	Bidder needs to set up office with required facilities and will have to provision for its cost as mentioned in Volume -3
220	Clause 2.1.3 f, Vol-2, Page 22	The OSO shall procure, as required, the appropriate licenses, agreements and permissions....	Kindly clarify for how many years the licence should be available.....	Till the end of contract period.



221	Clause 2.1.5 c, Page 23	OSO will also identify the training needs of UPMRC officers to contribute effectively to the organization.	Kindly clarify the total number of UPMRC team members for whom the training will have to be conducted.	To be decided during implementation phase.
222	Vol 2/appendix IV Contract Agreement/Clause 3.1 / page 110	Clause 3 - Obligation of the Employer: 2.1 The Employer agrees, subject to the terms and conditions of the Contract Documents, to pay the Consultant the amount specified, and at the rates and terms and in the manner set forth in the Contract Documents.	We request you to add the following sub-clauses (in Italics below) to the main clause: Approve invoices and all types of deliverables from Consultant within 5 working days s submits such documents. In absence of any approval/comment on such invoices and all types of deliverables in the said timelines, such invoices and all types of deliverables shall be deemed accepted by UPMRC Provide information in one go and with complete and accurate details within 5 working days of Consultant requesting such information.	As per Tender Conditions.
223	Vol 2/ GCC , Clause 2.6.1, Page 117	2.6.1. Definition For the purposes of this Contract, "Force Majeure" means an event which is beyond the reasonable control of a Party, and which makes a Party's performance of its obligations hereunder impossible or so impractical as reasonably to be considered impossible in the circumstances, and includes, but is not limited to, war.....	We request you to also consider and include 'epidemic', 'pandemic' before the word war in this Clause.	As per Tender Conditions.
224	Vol 2 / GCC clause 2.7 Suspension, page 118	The Employer may, by written notice of suspension to the Consultant, suspend all payments to the Consultants hereunder if the Consultants fail to perform any of their obligations under this Contract, including the carrying out of the Services, provided that such notice of suspension (i) shall specify the nature of the failure, and (ii) shall request the Consultants to remedy such failure within a period not exceeding thirty (30) days after receipt by the Consultants of such notice of suspension. Such suspension may be revoked on proof of remedial action by the consultant to the satisfaction of the Employer.	We request you to consider and add the following text (in Italics) under this clause: After giving at least 14 days' notice to the Client, the Consultant may, by a further notice of at least 42 days, terminate the Agreement, or at his discretion, without prejudice to the right to terminate, may suspend or continue suspension of performance of the whole or part of the Services: (a) when 28 days after the due date for payment of an invoice he has not received payment of that part of it which has not by that time been contested in writing; or (b) when Services have been suspended and the period of suspension have exceeded 182 days. When the reasons of Suspension are not attributable to Consultant, if Suspension is revoked within 60 days since the date of notice of Suspension, Consultant shall commence the services with same commercial Terms in this Agreement. However, if the Suspension is revoked after 60 days since the date of notice of Suspension, Consultant has right to resume the services with revised terms & conditions of this Agreement. However, if such revised terms & conditions cannot be mutually agreed between the Parties, Consultant has the right to terminate this Agreement with an immediate effect.	As per Tender Conditions.
225	Vol 2 / GCC Cl 2.8.3 - Cessation of Rights and Obligations, Page 120	2.8.1. Cessation of Rights and Obligations Upon termination of this Contract pursuant to Clauses 2.3 hereof, or upon expiration of this Contract pursuant to Clause 2.8 hereof, all rights and obligations of the Parties hereunder shall cease, except: (i) Such rights and obligations as may have accrued on the date of termination or expiration; (ii) The obligation of confidentiality set forth in Clause 3.3 hereof. 2.8.2. Payment upon Termination Upon termination of this Contract pursuant to Clauses 2.8.1 (a) to (e) or 2.8.2 hereof, the Employer shall make the following payments to the Consultant (after offsetting against these payments any amount that may be due from the Consultant to the Employer): (i) remuneration pursuant to Clause 6 hereof for Services satisfactorily performed prior to the effective date of termination; (ii) reimbursable expenditure pursuant to Clause 6 hereof for expenditure actually incurred prior to the effective date of termination; and (iii) in the case of termination pursuant to paragraphs (f) and (g) Clause 2.8.1 hereof, reimbursement of any reasonable cost incident to the prompt and orderly termination of the contract. The consultant shall not be entitled to any other payment (including compensation) on termination of the contract.	We request you to consider and add the following text (in Italics) at end of 2.8.3 (ii): ...which shall remain in effect for two years beyond the date of Termination. We request you to consider the following sub-clause (in Italics): (iv) When Termination is for reason/s not attributable to Consultant, Consultant shall also be paid: • Any additional cost that Consultant may incur due to such termination e.g. demobilisation costs etc. and • "The higher of (i) actual proven loss suffered by Consultant as a consequence of such termination "or" (ii) a minimum of 10% of the difference between the total compensation "as per this Agreement" and the amount payable as have become accrued & have remained unpaid, till the date of Termination shall become payable.	As per Tender Conditions.
226	Vol 2 / Clause 3.5 Insurance to be taken out by the Consultant, Page 122	3.5. Insurance to be taken out by the Consultant The Consultants shall take out and maintain, and shall cause the sub-consultants to take out and maintain, at their (or the sub-consultants' , as the case may be) own cost but on terms and conditions approved by the Employer, insurance against the risks, and for the coverage's, as shall be specified in the Special Conditions (SCC).....	We request you to accept umbrella insurance policy maintained by the Consultant as per industry practice having adequate coverage as per tender requirement.	Agreed. Bidder to provide confirmation that this project will also be covered under that insurance.



227	3.1.1. Vol 2 / 3.1.1. Performance Bank Guarantee, Page 124	3.1.2. Performance Bank Guarantee	We request you to consider and accept the submission of the PBG by each member of the consortium separately in proportion to their share of work as the value of PBG required is large.	Agreed.
228	General	General	We request you to add the following clause in GCC: Indemnity - Either Party shall indemnify the other Party and its officers, directors, employees or agents against the adverse effects of all claims including claims by third parties which arise out of or in connection with this Agreement including any made after the completion or the termination of this Agreement.	As per Tender Conditions.
229	General	Work Completion Certificate.....	Upon completion of its' services as per the scope defined in this Contract, we request UPMRC to provide work completion certificate to Consultant.	As per Tender Conditions.
230	General	APPENDIX - VIII Minimum Key Professional and Minimum Supporting Professional to be deployed	In more than one piece, we find the figure '111' in the columns. We presume its typographic error and the figure should actually be read as '1'. Kindly clarify.	It is not '111' but '1++'. For ++ sign, refer to notes below the table.
231	General	General	You would agree from our view that during mobilization of experts after the award of project, many experts refuse to join the project citing the availability of better opportunity available with them. In that case consultants were bound to replace the nominated expert in bid with new expert. Citing the above understanding, we would request you to allow the replacement.	As per Tender Conditions.
232	General	General	We request the client to allow the consultants to carry out the project activities from already established design offices located in Lucknow with a project coordination team.	As per Tender Conditions.
233	Volume 2 / Clause 2.2.2.10.4 (a), page 36	a. Bidder/Agency will be responsible for supplying the application and licenses of related software products...	We understand that the licenses of the software products is required to be considered only for the project duration and we assume that no perpetual license is required to be considered other than Operating System by the bidder/agency. Please clarify.	Your understanding is correct.
234	Volume 2 / Clause 7 (C), Page 100	c. Supply, Installation, commissioning and maintenance of Hardware The scope includes Supply, Installation, commissioning and maintenance of all the necessary hardware infrastructure required in order to meet the scope of work for implementation of SD BIM solution. This shall include servers, storage, cloud space,.....	Please clarify whether cloud based solution is acceptable?	Solution has to be proposed by the bidder.
235	Volume 3 / Notes points nos: 5 and 6, Page 10		In note no. 5 the requirements of licenses for UPMRC and GC staff is indicated. In Note nos. 6, it is indicated that in addition to above, the bidder shall procure number of licenses sufficient to meet requirement of OSO. Kindly clarify whether these additional licenses are towards the staff of the Consultant only or it needs to be considered to meet the requirement of DDCs, Contractors etc. appointed on these projects. If so, we request UPMRC to indicate the number of licenses to be provided for by the DDCs, Contractors etc. Kindly clarify.	There will be about 10 Contractors + 1 No. GC + 2 No. DDC (1 each for Kampur and Agral). Bidder is required to estimate their solution sizing accordingly.
236	General	GENERAL	1) We understand that the licence / warranty duration for the software/hardware to be procured will be limited to the project duration and also the Operation & Maintenance activities after that will be transferred to UPMRC. 2) We understand that post project duration all subscription licences will be renewed by UPMRC to continue usage of digital project management system. Kindly clarify.	Your understanding is correct.
237	Key Details Date and Time of submission of tender, Vol-1, Page 6		In consideration of lockdown condition across the country and also considering the complexity of this tender, request you to change the tender submission date to 30th July 2020.	Please refer Annexure-1 of Addendum-1
238	3.2. Professional Strength, Vol-1, Page 11	"Does the Applicant have more than 5 years of experience in Building Information Modeling (BIM) services including 3D BIM/ 4D-SD BIM services, implementation and support as on as on the due date of submission?"	"As per Volume 1: The scope of work will broadly include Supply, Implementation and Support of Digital Project Management Platform including SD-BIM (5-Dimensional Building Information Modeling) & Common Data Environment (CDE) solution. An Owner's Support Office (OSO) shall be created by the Agency which will support UPMRC in implementing SD BIM. As envisaged in the RFP and as per ISO 19650 standards, Common Data Environment becomes a platform for BIM. As far as we understand UP Metro will not undertake any 3D modeling activity by themselves and therefore emphasis of professional strength should be on SD BIM and CDE. We recommend that this pre-qualification be amended to include Common Data Environment experience. This will ensure you get the right Bidder with all the experience required for broad scope of work as articulated in the RFP" As RFP desired compiled solution which will be submitted by the bidder will be encapsulated and endorsed with the OEM issued MAF or required authorization. Thus there is no requirement of mentioned clause as it restricts the latest technological trends to make new tie-ups and give best competitive solutions to UPMRC. We request to modify the clause as below: " Has the Applicant proposed deployment of at least 5 OEM approved and endorsed SD BIM software professionals"	As per Tender Conditions.
239	3.2. Professional Strength, Clause No. 3, Page 11, Vol-1	Has the Applicant proposed deployment of at least 5 OEM certified SD BIM software professionals		As per Tender Conditions



240	3.3 BIM Implementation Experience, Page 12, Vol-1	Has the Applicant substantially completed at least one SD BIM Implementation in infrastructure projects including Metros/ Railways/ Residential/ Commercial/ Institutional building etc. having project cost not less than INR 500 Crores during last 5 years as on the due date of submittal.* Note: The Applicant should have experience in green field implementations of SD BIM projects (work done only on upgrades, add-on solutions, or maintenance or operational support shall not be deemed adequate for qualification) on the proposed solutions"	*As per Volume 1: The scope of work will broadly include Supply, Implementation and Support of Digital Project Management Platform including 5D-BIM (5-Dimensional Building Information Modeling) & Common Data Environment (CDE) solution. An Owner's Support Office (OSO) shall be created by the Agency which will support UPMRC in implementing SD BIM. As envisaged in the RFP and as per ISO 19650 standards, Common Data Environment becomes a platform for BIM. Whereas BIM Implementation experience being looked for is limited to SDBIM. To reach SD one must go through process of 3D and 4D BIM. To be explicit, we request you to change the SD BIM to "3D, 4D and SDBIM and CDE". Otherwise, SD BIM software (Desktop Cost Estimation software) implementer also will become eligible without an adequate understanding of CDE"	As per Tender Conditions.
241	3.3 BIM Implementation Experience - Clause No. 2, Page 12, Vol-1	Is the Applicant (directly or in consortium with Agencies) a value added reseller or certified system integrator or agency with the principal of the OEM solutions proposed for a minimum period of 1 years as on 31st March 2020.	As RFP desired compiled solution which will be submitted by the bidder will be encapsulated and endorsed with the OEM issued MAP or required authorization. Thus there is no requirement of mentioned clause as it restricts the latest technological trends to make new the-ups and give best competitive solutions to UPMRC. We request to modify the clause as below: " Is the Applicant (directly or in consortium with Agencies) a value added reseller or certified system integrator or authorised partner of the OEM for license sale and providing implementation services over principal OEM technology.	As per Tender Conditions.
242	3.4 OEM Qualifications: (S.No.2), Page 13, Vol-1	Does the functionality and features of the proposed SD BIM solution substantially meet the functional requirements as mentioned in the section 2.2.3 of TOR.	Towards submission of client certificates : Due to strict Non-Disclosure and privacy clauses in the US, Europe, Singapore etc. customers prohibit sharing of their documents with third parties. So, Request to include the following options : Project detailed description along with Customer contact details (Telephone, Email ID) for firms which have implemented SD BIM/ CDE. UP Metro can verify directly with such users. Or Project detailed description along with publicly available documentation / Information like success stories/ case studies legally cleared by the customer or invoice copies or project expenditure information available in public domain that satisfactorily authenticate the project Or Project detailed description along with Customer contact details (Telephone, Email ID) and purchase order copy / user sign off document for orders received by OEM through prime vendors/ System Integrator from firms which have implemented SD BIM/ CDE. Or Self-Certification by the OEM mentioning software version details, brief scope of work and Value of the Eligible work(s) pertaining to this pre-qualification clause, shall be submitted under the signature of an official of the rank of Director of the Board of Directors or above, of the OEM and endorsed by external auditor of the OEM."	The clause is self explanatory. The proposed solution should substantially meet the FRS so as to be able to satisfactorily meet intent and requirements of the tender.
243	3.4.OEM Qualification: S.No : 1 & S.No. 5, Volume 1, Page-13	Self-declaration supported by Certificates from Client(s) of the OEM "	Self-declaration by the bidder mentioning software version details, brief scope of work and Value of the Eligible work(s), supported by relevant documents like work order, bill of quantities, bill wise details of payment received (certified by CA) and copy of final bill paid by client will also be considered.	As per Tender Conditions.
244	Section 3.1, Vol-2, Page 4	Evaluation of Technical Proposal	Section 2: Functional Requirement Specifications (FRS) is critical criteria for selection of technology for both SD BIM and Collaboration platform (Common data environment) and this the most important criteria for the success of this project. But no marks and no weightage have been allocated to FRS. On the other hand, 45% weightage has been allocated to 3.1 Evaluation of Technical Proposals - IV" (Qualifications experience and competence of the Key Staff to be deployed for the Assignment). We request you to add FRS as another criterion in 3.1. Evaluation of Technical Proposals and allocate at least 20% weightage to FRS and adjust it against the weightage assigned to Criteria No. IV from 45% to 25%	As per Tender Conditions.



245	<p>Criterion I: Specific experience of the firms project being more than Rs 500 crores. Assignment. S. No. 1, Vol-2, Page 5</p>	<p>Experience in 5D BIM deployment/implementations in infrastructure projects including Metros / Railways / Residential/ Commercial/ Institutional Building projects etc. during the last five (5) years as on 30.04.2020. Value of each Bidder having 3 or more deployments/implementations will get 100% of the minimum marks for this sub-criterion. Other bidders having lesser number of deployments / implementations will be awarded with respect to 3, based on proportion of number of deployments / implementations carried out/being carried out.</p>	<p>"As per Volume 1: The scope of work will broadly include Supply, Implementation and Support of Digital Project Management Platform including 5D-BIM (5-Dimensional Building Information Modeling) & Common Data Environment (CDE) solution. An Owner's Support Office (OSO) shall be created by the Agency which will support UPMRC in implementing 5D BIM.</p> <p>As envisaged in the RFP and as per ISO 19650 standards, Common Data Environment becomes a platform for BIM.</p> <p>Whereas BIM Implementation experience being looked for is limited to 5DBIM. To reach 5D one must go through process of 3D and 4D BIM. To be explicit we request you to change the 5D BIM to "3D, 4D and 5DBIM and CDE". Otherwise, 5D BIM software (Desktop Cost Estimation software) implementer also will become eligible.</p>	<p>As per Tender Conditions.</p>
246	<p>Criterion I: Specific experience of the firms relevant to this type of Assignment. S. No. 1, Vol-2, Page 5</p>	<p>Experience in 5D BIM deployment/implementations in infrastructure projects including Metros / Railways / Residential/ Commercial/ Institutional Building projects etc. during the last five (5) years as on 30.04.2020. Value of each project being more than Rs 500 crores. Bidder having 3 or more deployments/implementations will get 100% of the maximum marks for this sub-criterion. Other bidders having lesser number of deployments / implementations will be awarded with respect to 3, based on proportion of number of deployments / implementations carried out/being carried out.</p>	<p>While you have asked for implementation experience on 5D BIM project, the experience is sought around value of the infrastructure project as more than 500Cr.</p> <p>This means, a bidder who could have sold small 5D BIM desktop software can also qualify without having understanding of complexity of implementing a similar solution in a diverse metro rail project.</p> <p>Further there is no experience of asked for implementing CDE project which is a critical component of this project.</p> <p>Therefore it is recommended to assign a minimum project value (we recommend Rs. 5Cr.) for minimum one 5DBIM /CDE project experience with adequate supporting documentation like Client certificate / Purchase Order copy / User acceptance sign off</p>	<p>As per Tender Conditions.</p>
247	<p>3.1. Evaluation of Technical /Criterion II: Proposed Solution, Vol-2, Page 6</p>	<p>Bidders will be evaluated as per their prior experience of deploying solution proposed for this project. Bidder having done 3 or more deployments of the solution proposed by them will get 100% of the maximum marks for this sub-criterion. Other bidders having done lesser number of deployments of the proposed solution will be awarded with respect to 3, based on proportion of number of deployments of the proposed solution carried out/being carried out by them</p>	<p>Please elaborate what is meant by "Solution Proposed by them". Does this mean that bidder who is going to offer the solution for this tender, bidder should have implemented the same 5D BIM solution before in at least three projects?</p> <p>This clause is more appropriate for OEM whose solution Bidder is going to proposed/offered in this tender. We request authority to relax this clause so that OEM can also submitted the prior experience of deployment of "proposed 5D BIM solution" done through any of their partners/ contractors or directly by them. OEM can submit a self declaration mentioning the list of past deployment based on "proposed solution" for this tender attested by CA/statutory auditor.</p>	<p>The bidder must have earlier deployed the same solution as proposed for this project.</p>
248	<p>Clause 1.2, Volume-2, Page 21</p>	<p>Track 1: Owner Support Office</p>	<p>Please clarify if Bidder will be required to set up two Separate OSO for Agra or Kanpur or a centralized OSO will be setup. Please confirm if the location will be Lucknow. Also, will the GC for both the metro project will be same or different. Who will be the approving authority for various tasks?</p>	<p>Only one OSO will be set up to look after both Agra and Kanpur projects. GC would be same for both the projects.</p>
249	<p>Clause 2.2.2.2, Vol-2, Page 27</p>	<p>these review solutions should be able to create intelligent 3D pdfs that can be used for review in absence of the originator software.</p>	<p>We understand the goal of Design review and specific Requirement is to provide UPMRC capability to review and inquire and markup the 3D models. We recommend that 3D PDF is one of the options to do the same, there are other Open formats like Model which allow users to review and markup models without the need of 3D models and Bidder should be provided options to choose the best of class technology to meet the Requirement.</p>	<p>Please refer Annexure-12 of Addendum-1</p>
250	<p>Clause 2.2.2.8 The broad requirements of the BIM solution will be as mentioned below:Vol-2, Page 30</p>	<p>1. To ensure that contractor outlines the overall vision along with implementation details for the team to follow throughout the project, but not limited to project information, BIM goal & uses, project member's roles, staffing and competency, BIM process and strategy, BIM exchange protocol and submittal format, BIM data requirement in collaboration procedures and method to handle shared models, BIM design and drawings quality checklist, technology use, asset information's spreadsheet for facility management, BIM & GIS international best practices followed during implementations, and asset information tagging.</p>	<p>If cost codes are to be incorporated into BIM model, which ERP tool is being used? Will these cost codes be extracted from ERP or generated separately for BIM? Integration of existing or client's ERP with BIM models may not be an out of the box solution. Please clarify</p> <p>As per below clause the Asset Management is not its scope of work?</p> <p>As per Page 101, 7.2, d, this is Exclusion.</p> <p>d. Exclusions:</p> <p>i. Assets Management</p> <p>ii. Operations management</p> <p>iii. 6D BIM - Sustainability</p> <p>iv. 7D BIM - Facilities management</p> <p>Please confirm.</p>	<p>ERP integration is not under the scope of work under this tender.</p>
251	<p>Clause 2.2.2.9 The Agency will implement a 5D-BIM solution which would address the following in near realtime where technically feasible: Vol-2, Page 31</p>	<p>1. To ensure that contractor outlines the overall vision along with implementation details for the team to follow throughout the project, but not limited to project information, BIM goal & uses, project member's roles, staffing and competency, BIM process and strategy, BIM exchange protocol and submittal format, BIM data requirement in collaboration procedures and method to handle shared models, BIM design and drawings quality checklist, technology use, asset information's spreadsheet for facility management, BIM & GIS international best practices followed during implementations, and asset information tagging.</p>	<p>As per Page 101, 7.2, d, this is Exclusion.</p> <p>d. Exclusions:</p> <p>i. Assets Management</p> <p>ii. Operations management</p> <p>iii. 6D BIM - Sustainability</p> <p>iv. 7D BIM - Facilities management</p> <p>Please confirm.</p>	<p>Asset Management is not in scope of work for this tender.</p>



252 Clause 2.2.2.9 The Agency will implement a 5D-BIM solution which would address the following in near realtime, Vol-2, Page 32

t. Check and assist the contractors in set up of BIM based asset management systems which will be used for maintaining all the records related to the project during the operation stage.

As per below clause the Asset Management is not its scope of work?

As per Page 101, 7.2, d, this is Exclusion.

**d. Exclusions:
Following functions are excluded:**

- i. Assets Management
- ii. Operations management
- iii. 6D BIM - Sustainability
- iv. 7D BIM - Facilities management

Please confirm.

Asset Management is not in scope of work for this tender.

253 where technically feasible, Vol-2, Page 38

2.6.2 If so required by UPMRC during the implementation and operations of Digital Project Management Platform using 5D BIM, asset information's spreadsheet and asset information tagging, received from the contractors/ suppliers of equipment as well as plant & machinery shall be incorporated in the 'As-Built' 3D BIM models for the use of O&M/ facility management by UPMRC team.

As per below clause the Asset Management is not its scope of work?

As per Page 101, 7.2, d, this is Exclusion.

**d. Exclusions:
Following functions are excluded:**

- i. Assets Management
- ii. Operations management
- iii. 6D BIM - Sustainability
- iv. 7D BIM - Facilities management

Please confirm.

Asset Management is not in scope of work for this tender.

254 FUNCTIONAL SPECIFICATION - DIGITAL MANAGEMENT SYSTEM, Vol-2, Page 73

42	3rd year digital management system, annual cost
43	Ability to send status of Tag to other devices, installations, mobile, tablet, web
44	Ability to send status of Tag to other devices, installations, mobile, tablet, web
45	Ability of the solution to manage multiple versions of a document, tag and other objects and retain a history of those versions
46	Ability to manage multiple versions of a Tag to track its history and the historical information defined on the associated tag
47	The ability to manage multiple versions of a Tag to track its history
48	Ability for Tags to be enabled on 3D model and any other supporting documents
49	Account support for user profile management, improve asset requirements management for a Tag object and the Equipment ID/ID for the equipment
50	Ability to structure Physical assets in a hierarchy of components
51	Ability to structure Physical Equipment in a hierarchy of components
52	Ability to publish Master Equipment list to Maintenance Management system

Tender No. 2024/010101, Supply, Installation & Support of Digital Project Management Platform using 5D BIM - Digital Content

Sl. No. FUNCTIONAL SPECIFICATION - DIGITAL CONTENT

250 Ability to manage the Physical Assets

251 Ability to structure Physical assets in a hierarchy of components

252 Ability to publish Master Equipment list to Maintenance Management system

" If so, required by UPMRC during the implementation and operations of Digital Project Management Platform using 5D BIM; asset information's spreadsheet and asset information tagging, received from the contractors/ suppliers of equipment as well as plant & machinery shall be incorporated in the 'As-Built' 3D BIM models for the use of O&M/ facility management by UPMRC team"

Please confirm.

Asset Management is not in scope of work for this tender.

255 Section 2.6.2., Volume 2, Page no. 38/39

" If so, required by UPMRC during the implementation and operations of Digital Project Management Platform using 5D BIM; asset information's spreadsheet and asset information tagging, received from the contractors/ suppliers of equipment as well as plant & machinery shall be incorporated in the 'As-Built' 3D BIM models for the use of O&M/ facility management by UPMRC team"

We suggest UP Metro use the neutral 'Open source' models for e.g.: Model.

Facilities Management is not in scope of work for this tender.

256 (Vol-2, 39 & 137) 2.4 Track 4: Helpdesk Setup and Operations Appendix VIII

This track includes running centralized helpdesk setup and operations for all the Systems for a period of 48 months from the date of Go Live.

Agency will prepare all the requisite training aids that are required for successful completion of the training for all stakeholders. These include the following for all the stakeholders:

- i. Training manuals for all users
- ii. Computer based training modules
- iii. Video (recorded sessions) for portal functionality, back end modules, business intelligence, dynamic reporting etc.
- iv. Presentations
- v. User manuals
- vi. Operational and maintenance manuals for the modules provided along with the application
- vii. Application/modules training prototype for hands on training using dummy data
- viii. Regular updates to the training aids prepared under this project


Helpdesk support is required for only 42 months post go-live.

257 Preparation of Training Aids, Vol-2, Page 40

While Presentation creation, and training manual is standard requirement; Computer Based Training Modules require Learning Management Systems on the client side.

- 1. Please mention the LMS running at UP Metro.
- 2. Please mention the Knowledge Management Session (KMS) running at UP metro for practice sessions and learning sessions.
- 3. Please provide scope of additional manpower to develop LMS and KMS related modules.
- 4. Consistent updates require full-time positions of Content Developers which is a standard industrial practice when concerning LMS and KMS content.

As per Tender Conditions.



<p>258</p> <p>FUNCTIONAL REQUIREMENTS MODELING, ANALYSIS, DESIGN, 4D-5D BIM AND VISUALIZATION SOLUTION, Vol-2, Page 63</p>	<p>Ability to create Line of Balance (LOB) / Flowline scheduling.</p>	<p>The line of balance (LOB) / Flowline scheduling feature is proprietary to certain tools like Vico and is not an industry standard process for linear projects like Rail. It is recommended to remove this feature. Its also suggested to go for a tool that uses an industry-standard critical path method (CPM) for scheduling.</p>	<p>Please refer Annexure-11 of Addendum-1</p>
<p>259</p> <p>Sl. No 216- DESIGN, 4D-5D BIM AND VISUALIZATION SOLUTION, Vol-2, Page 63</p>	<p>Ability to Line of Balance (LOB) / Flowline, seamlessly linking of Gantt Chart & Network view for visual schedule optimization.</p>	<p>The line of balance (LOB) / Flowline scheduling feature is proprietary to certain tools like Vico and is not an industry standard process for linear projects like Rail. It is recommended to remove this feature. Its also suggested to go for a tool that uses an industry-standard critical path method (CPM) for scheduling.</p>	<p>Please refer Annexure-11 of Addendum-1</p>
<p>260</p> <p>4.2 (iii) User and Identity Management, Page 86, Vol-2</p>	<p>The identified solution should support both on premise and cloud implementation, or a hybrid of the two."</p>	<p>It is 100% cloud or alternatively 100% on premise solution acceptable? In case of cloud-based application, we request you to specify that the cloud service provider should be certified as per Ministry of Electronics and IT (MeitY), Govt. Of India norms. This pertains to residency of main data server and DR server (not to be mistaken with Caching Server) within Indian territory, as also conforming other critical criteria like DATA SECURITY, PRIVACY and SAFETY. If vendor is proposing cloud-based solution then minimum SLA for uptime should be 99.9%. * This is mandated by the Government of India for all government organizations using cloud-based applications. In case of cloud-based applications, the IT infrastructure component of this bid becomes substantially redundant, saving huge amount of hardware procurement, maintenance and IT administrative expenses for UP metro."</p>	<p>Bidder has to propose the solution and is free to choose on-premise / cloud hosting or a combination thereof. Bidder has to propose the solution and is free to choose on-premise / cloud hosting or a combination thereof.</p>
<p>261</p> <p>Clause 4.2 (iii), Vol-2, Page 88</p>	<p>The identified solution should support both on premise and cloud implementation, or a hybrid of the two.</p>	<p>It is requested to kindly clarify the following: a. the percentage (%) of the On Premise/Cloud. i.e. any consideration in terms of applications, storage, etc. bifurcations. b. whether UPMRC would provide the space for hosting the infrastructure in their datacenter in case of on premise. c. there is no mentioning for the bandwidth i.e. internet bandwidth, MPLS links for the connectivity between the different offices of UPMRC.</p>	<p>a) Bidder has to propose the solution and is free to choose on-premise / cloud hosting or a combination thereof. b) Bidder has to host the infrastructure in their premise for the entire contract period (Whatever part of the infrastructure bidder wants to have on-premise). c) Bidder has to ensure system connectivity / system accessibility for all stakeholders working on the system. However, the internet bandwidth charges for UPMRC office shall be borne by UPMRC.</p>
<p>262</p> <p>Timelines and schedule of implementation, Vol-2, Page 97</p>	<p>4.1 Project Timeline Core SD BIM system High Level Design, low level design document and System Architecture document (in compliance with Annexure A of the RFP)</p>	<p>Annexure A is missing in RFP</p>	<p>Please refer Annexure-13 of Addendum-1</p>
<p>263</p> <p>Timelines and schedule of implementation, Vol-2, Page 97</p>	<p>4.1 Project Timeline Core SD BIM system</p>	<p>Under Vol-II, under Track 2: Implementation of SD BIM, application development is mentioned. The same is not getting reflected in Table 4.1 of Project Time Line</p>	<p>As per Tender Conditions.</p>
<p>264</p> <p>6.2. (i) Remuneration, Vol-2, Page 128</p>	<p>(i) Software & Licenses Payment of the software & Licenses shall be made as following: a) 100% on delivery of the software and/or license keys and documentation in physical or electronic medium as the case may be and acknowledged by UPMRC.</p>	<p>Payment terms for software : As per the tender SD BIM and CDE subscription are required on an annual Incese basis. Kindly amend the payment terms of the software for payment to be made Payment terms for software for implementation : Implementation of SD BIM and CDE are be based milestones, kindly incorporate milestone based payment for implementation services.</p>	<p>As per Tender Conditions.</p>



265	6.2. Payment, Vol-2, Page 128	<p>(iii) Software & Licenses Payment of the software & Licenses shall be made as following: a) 100% on delivery of the software and/or license keys and documentation in physical or electronic medium as the case may be and acknowledged by UPMRC. (iii) Hardware & Hosting Payment of the Hardware & Hosting shall be made as following: a) 80% payment on delivery b) Balance 20% payment on successful commissioning.</p>	<p>Working hour as applicable to the UPMRC employees will be applicable to Consultants also. No leave will be allowed as the payment is on man-month basis considering the month as of 30 days taking into account the holidays and rest days. (Details of duration of overtime and vacation leave should be given in Appendix X. The rate thereof and total cost on this account has to be included in the financial proposal.</p>	<p>Payment does not reflect any milestone in line with "Timelines and Schedule". It just refers only two aspects - Software & Hardware. All other deliverables as per "Timelines and Schedule (Vol 2- Page 97)" are missing. As per Tender Conditions.</p>
266	4.6 Working hours and leave, Vol-2, Page 128	<p>Remuneration and reimbursable expenditures as set forth in clause 6.2 (c) for the Personnel shall be determined on the basis of time actually spent by such Personnel in the performance of the Services after the date determined in accordance with Clause 2.2 and (or such other date as the Parties shall agree in writing) (including time for necessary travel via the most direct route) at the rates referred to, and subject to such additional provisions as are set forth, in the SCC.</p>	<p>We understand that only Weekoffs and official calendar holidays as per UP government are given. Please clarify on Sick leaves and other entitlements. If the deployed manpower are eligible for same as per UPMRC rules. Kindly clarify the HR norms and calculations.</p>	<p>As per Tender Conditions.</p>
267	6.2. Payment Remuneration, Vol-2, Page 130	<p>(i) The Services after the date determined in accordance with Clause 2.2 and (or such other date as the Parties shall agree in writing) (including time for necessary travel via the most direct route) at the rates referred to, and subject to such additional provisions as are set forth, in the SCC.</p>	<p>Request you to mention the periodicity/frequency of the payment of remuneration. 1. Settlement process and time period to settle the bills? 2. On what dates should the bill be raised to UP Metro?</p>	<p>As per Tender Conditions.</p>
268	6.2 (iv) Reimbursement expenses, Vol-2, Page 130	<p>As per Vol-3 (Financial Proposal) of RFP document</p>	<p>Request you to mention the process and time period to settle the reimbursement expenses.</p>	<p>As per Tender Conditions.</p>
269	Appendix VIII Minimum Key Professional deployment, Vol-2, Page 136	<p>Overall Manmonths have been defined.</p>	<p>Request you to break-up the deployment period month-wise over the entire contract term to ensure no ambiguity in deployment of manpower at later stage.</p>	<p>Bidder has to propose his manpower deployment plan.</p>
270	(Volume 2 & 3 Appendix VII Minimum Key Professional deployment, Vol-2, Page 136	<p>Project Director Manmonths is specified as 36 months in Appendix VIII, while Volume 3 Appendix VIII.3.1 mentions it as 48 months.</p>	<p>Please clarify the exact tenure of the manmonths deployment for Project Director.</p>	<p>Please refer Annexure-8 of Addendum-1</p>
271	(Volume 2 & 3) Appendix VII Minimum Key Professional deployment, Vol-2, Page 136	<p>Overall Manmonths have been defined for every role.</p>	<p>Request you to extend deployment of all IT related support, and some key resources to the end of the contract. This will ensure proper support. Only help-desk support will not be able to support in the event of IT or other issues.</p>	<p>As per Tender Conditions.</p>
272	APPENDIX • XVIII-3-I COST OF SOFTWARE & LICENSES, Vol-3, Page 10	<p>Notes: 5. The requirement of the licenses for UPMRC and GC staffs mentioned below: Software: 1) SD BIM software (Eg. Trimble Vico office suite or similar) -5 Licenses 2) Common Data Environment (Eg. Autodesk BIM 360 or similar) 10 Licenses 3) 3D Modeling Software (Eg. Revit or similar) 5 Licenses</p>	<p>1) Considering our previous experience for metro rail project, the number of licenses will not be sufficient for Agra and Kanpur Metro. Please confirm. 2) Are the mention software preferred by UPMRC? Please confirm.</p>	<p>There will be about 10 Contractors + 1 No. GC + 2 No. DDCC (1 each for Kanpur and Agra). Bidder is required to estimate their solution sizing accordingly. UPMRC does not have any software preference. Bidder shall provide any software that meets the tender requirements.</p>
273	APPENDIX • XVIII-3-I (Note 5) - S.No.2, Vol-3, Page 10	<p>Common Data Environment (E.g. Autodesk BIM 360 or similar) - 10 Licenses</p>	<p>CDE is an Enterprise Wide Digital Platform owned and facilitated by owner operator (UP Metro) for entire project lifecycle from Design through Construction and Handover followed with O&M. Therefore all stakeholders, internal (UP Metro) and External (GC, DDCC, EPC etc.) must have mandatory access to the CDE for all project related documentation, collaboration, transmittals & submittals. Design review, Verification and co-ordination for the success thus becoming single source of truth for the entire project as per global best practices and ISO 19650 standards. This is critical for the success of the project.</p>	<p>There will be about 10 Contractors + 1 No. GC + 2 No. DDCC (1 each for Kanpur and Agra). Bidder is required to estimate their solution sizing accordingly. UPMRC does not have any software preference. Bidder shall provide any software that meets the tender requirements.</p>

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274	APPENDIX - XVIII-3-II (Note 5) - S.No.3, Vol-3, Page 10	3D Modeling Software (E.g. Revit or similar)	As we understand, The following 3D Design and Analysis software already being used by UP Metro and your contractors: A) OpenRail Designer B) STAAD Request you to add these two tools also in your bill of material as part of 3D Modeling Software(s) or please remove the example as it indicated to specific OEM.	As per Tender Conditions.
275	APPENDIX - XVIII-3-II (Note 5) - S.No.3, Vol-3, Page 10	3D Modeling Software (E.g. Revit or similar)	To the best of our knowledge UP metro is not a registered user of Trimble Vico office. Also, this is not a proprietary procurement tender for Trimble Vico office but an open competitive tender. Hence it is strongly recommended to put the software tool description as "3D BIM software" and not mention the name of specific software brand as this is a Open competitive bidding.	Any 3D modelling, CDE and 5D BIM software is acceptable subject to satisfactorily meeting the tender requirements.
276	APPENDIX - XVIII-3-II, Vol 3, Page 12	COST OF HARDWARE AND HOSTING	There should be more clarity in freezing the BOM in terms of quantifying the no. of servers, capacity of Storage, Networking components and other solution components like Backups	As per Tender Conditions.
277	"A) Vol.1; 3.4 OEM Qualification; S.No.4 B) Vol.2; Point no. E, Page no. 27 C) Vol. 2; Point no "1", "1", "...Asset" page no. 31 D) Vol 2; Point no "1", "1", "...Asset" page no. 32 E) Vol.2 Page no. 73; "Tag Asset Management" F) Vol 2 Page no. 101; D: Exclusion Management G) Vol 2 Page no. 101; D: Exclusion i: Asset Management."	"A) Vol.1; 3.4 OEM Qualification; S.No.4 It is proposed Common Data Environment (CDE) solution compliant with global BIM standards & ISO standards. B) Vol.2; Point no. E, Page no. 27 To improve the safety and speed of inspections and maintenance with the ability to see asset information within the context of 3D models during operations C) Vol 2; Point no "1", "1", "...Asset" information's spreadsheet for facility management, BIM & GIS international best practices D) Vol 2; Point no "1", "1", "...Asset" Check and assist the contractors in set up of BIM based asset management systems which will be used for maintaining all the records related to the project during the operation stage. E) Vol.2 Page no. 73; "Tag and Asset Management" F) Vol 2 Page no. 101; D: Exclusion i: Asset Management."	"Please note : RFP Seeks compliance to ISO standards for OEM pre-qualification. The relevant ISO standard for CDE is ISO 19650. ISO 19650 articulates Requirement of Asset Information Model for built assets to extend the benefits of BIM for Operations and Maintenance. RFP also clearly specifies the Requirement of collecting and managing the asset information "tags" in Vol1 and Vol2 RFP also seek compliance to a lot of functional requirements under "Tag and Asset Management" in Vol12. At the same time, Vol 2 provides "exclusion list which includes "Asset Management", which is contradicting. We recommend UP Metro adopts proper asset-centric approach as recommended by ISO 19650 at the beginning of the project to derive full benefits of BIM. And the proposed CDE should cater to both Project Information Management (PIM) and Asset Information Management (AIM) as per ISO standards. Given the stated detailed requirements we suggest the following change. "UP Metro desires to have an Asset Information management system for handover of civil assets and track assets including viaduct, tunnel, stations etc. The bidder needs to define proper Asset Information strategy along with Asset data classification and Asst data dictionary clearly outlined in an Asset Information Requirement document as part of the Owners Support Office deliverables. Bidder will train and handhold the supply chain in ensuring that the asset tags as per the defined standards are tagged to the 3D models at various stages of design including final as built model with asset tags and respective asset attributes. The bidder is also expected to deliver the 3D model in an Opensource format."	Asset Management is not a part of the scope of work required under this tender.
278	General recommendation	Definition of CDE is missing	Please explicitly definition as per ISO 19650- 1 &2 standard. For Reference : CDE Definition as per ISO 19650: Agreed source of information for any given project or asset, for collecting, managing and disseminating each information container through a managed process	As per Tender Conditions.
279	General Recommendation	Development of BIM Standards	Please clarify who is responsible is to define BIM standards as per ISO 19650 to UP Metro. This includes EIR, AIR, OR, BEP (pre-contract & post-contract); PIM & AIM, MDP and TDP, Asset data dictionary / Classification, Asset Information Standards	Bidder in consultation with UPMRC shall define the BIM standards for UPMRC.
280	General Recommendation	4D BIM	"4D BIM is a steppingstone to build 5D. There is mention of very few functionalities of 4D BIM and its critical technical requirements, and it's most suited a specific 5D - Vico which has limited capabilities. We request to allow us to submit a certain set of technical requirements for 4D BIM, which will benefit UPMRC"	As per Tender Conditions.
281	General		What is the ERP system used or will be used by UPMRC, this information is required with respect to integration challenges between 5D BIM software and cost based ERP system? Please confirm.	ERP integration is not envisaged at this stage.
282	General		Is the Drone survey required or is in scope of work, please confirm?	As per Tender Conditions.
283	General	1.1. Evaluation of Technical Proposal	Is QR code stamping on Execution 2D drawings required or is in scope of work for End to End solution, Please confirm? • While prior experience is an important criterion, the understanding of the requirements of UP Metro and a robust approach & methodology to deliver the project will also be critical. Hence it is important for the RFP	Bidder has to propose a solution meeting the requirement of document.



284 Section 3. Proposal Evaluation, Page 4, Vol 2

Criterion No.	Criterion	Weightage (%)	Total Marks
I	Specific experience of the firms relevant to this type of Assignment	20	1600
II	Proposed Solution	20	1600
III	Adequacy of Proposed Methodology & work plan as responding to the TOR	15	1200
IV	Qualifications, experience and competence of key staff to be deployed for the Assignment	45	3600
TOTAL		100	8000

to reflect this fully. We suggest that appropriate weightage of 30% (2400 marks) be given to the Approach, Methodology and Workplan - Criterion III. This change can be adjusted by deducting appropriate weightage from Criteria II and IV.
Hence we propose the criteria may be revised as follows:

Criterion No.	Criterion	Weightage (%)	Total Marks
I	Specific experience of the firms relevant to this type of Assignment	20	1600
II	Proposed Solution	10	800
III	Adequacy of Proposed Methodology & work plan as responding to the TOR	30	2400
IV	Qualifications, experience and competence of key staff to be deployed for the Assignment	40	3200
TOTAL		100	8000

As per Tender Conditions.

285 Section 3.1: I: Specific experience of the firms relevant to this type of Assignment, Page 5, Vol 2

Sub Criterion 1:
Experience in SD BIM deployment/ implementations in Infrastructure projects including Metros / Railways / Residential/ Commercial/ Institutional Building projects etc. during the last five (5) years as on 30.04.2020. Value of each project being more than Rs 500 crores.

To reflect the broader capabilities that bidders are expected to bring to the table and given the importance of the OSO role, we propose the following changes in sub criteria to:
• Specific experience of firms relevant to this project – 1600 Marks (20%), be split across the following:
• Experience across BIM projects – 800 Marks (10%) • Experience in the OSO / digital change management role– 800 Marks (10%)
• Evaluation of Experience across BIM projects – 800 Marks (10%)
Since sectors such as Power Transmission & Distribution, Oil & Gas have seen significant instances of BIM deployments, these should also be included in the relevant project experience. Hence we propose the clause to cover: "Experience in 4/SD BIM deployment/ implementations in infrastructure projects including Metros / Railways / Residential/ Commercial/ Institutional Building / Power Transmission & Distribution / Oil & Gas etc. during the last five (5) years as on 30.04.2020. Value of each project being more than Rs 500 crores."
• Quality of Experience in the OSO / digital change management role may be evaluated with the following– Experience in OSO / Digital project management/ digital change management role during the last five (5) years as on 30.04.2020. No. of eligible projects in OSO set-up/ digital project management / digital change management role must have consultancy fee above Rs 15 Cr (Not including IT/ software/ audit / taxation related fees)
Bidder having 15 or more projects in the OSO /Digital project management / digital change management role will get 100% of the maximum marks for the sub criterion.
Other bidders having lesser number of deployments / implementations may be awarded as follows:
o >=15 projects = 100%
o 10-14 projects = 67%
o <10 projects = 33%

As per Tender Conditions.

286 Section 3.1: Criterion III: Adequacy of Proposed Methodology & work plan in responding to the TOR, Page 6, Vol 2

Sl. No.	Sub Criterion	Sub Criteria Details and Marking Scheme	Marks
1	Approach and Methodology	Bidders will be evaluated on demonstrated level of understanding of project purpose, scope of work, overall SD BIM & CDE implementation blue print, process flow and Demonstration of suitability of proposed solution.	600
2	Work Plan (including schedule)	The bidder may be asked to make a presentation to (P/M/C at the technical evaluation stage.) Bidders detailed work plan & break down of activities for performance of the assignment.	600
Total			1200

To ensure that the Consultant's evaluation in respect of approach and methodology is robust and holistic, it must include aspects of OSO strategy, Project management methodology, project governance, relevant skillsets, capabilities and tools brought in by the consultants in addition to currently mentioned topics. Hence we propose the following changes to the evaluation criteria:
III. Adequacy of Proposed methodology and work plan– 2400 Marks (30%)
• Understanding of the Project, its purpose, scope, key challenges and learnings from past implementations– 400 marks (5%)
• Skill Sets, Capabilities, Proprietary consulting tools and methodology and Awards and Recognition– 400 marks (5%)
• Comprehensive and robust project approach including details of the solution, Overall SD BIM and CDE Implementation Strategy, OSO setup, Project Management and governance methodology, and Illustrations from related Project Experience including global work relevant to the current RPP – 1000 marks (12.5%)
• Work Plan (including schedule) – 600 marks (7.5%)
To strengthen the Consultant's evaluation in respect of understanding of the context, larger issues associated with the project and state of the art approach and methodology, it is suggested that a formal presentation be made a critical part of the technical evaluation stage along with the submission documents.

As per Tender Conditions.



<p>Section 3.1: Criterion IV: Qualifications, and competence of the Key Staff to be deployed for the Assignment, Page 9, Vol 2</p>	<p>Key Staff Evaluation Criteria: Marks Allotted</p> <p>Marks Allotted</p> <p>Project Director cum Team Leader (OSO) 800 BIM Strategy Specialist & BIM Head 600 Digital Project Implementation Specialist 500 CDE Specialist 500 4D/ SD BIM Specialist 400 Metro Rail Expert 400 Project Manager (Software) 400</p>	<p>In order to ensure full value delivery from the project we have recommended to add select roles focused on topics such as OSO/governance, digital project management and change management. We suggest the following changes to list of key experts/roles and marks allotted to each:</p> <p>Key experts</p> <p>Project Director cum Team Leader (OSO) 600 BIM Strategy Specialist & BIM Head 400 Program Manager (OSO & Governance) 400 Change management expert 400 Digital Project Implementation Specialist 400 CDE Specialist 200 4D/ SD BIM Specialist 200 Metro Rail Expert 400 Project Manager (Software) 200</p>	<p>As per Tender Conditions.</p>
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<p>Section 3.1: Criterion IV: Qualifications, and competence of the Key Staff to be deployed for the Assignment, Page 9-10 Vol 2</p>	<p>Qualifications, experience and competence of the Key Staff to be deployed for the Assignment</p> <p>Key Professional: Minimum Post- Qualification Professional Experience</p> <p>Min years of exp.</p> <p>Project Director cum Team Leader (OSO) 20 BIM Strategy Specialist & BIM Head 10 Digital Project Implementation Specialist 10 CDE Specialist 10 4D/ SD BIM Specialist 8 Metro Rail Expert 8 Project Manager (Software) 8</p>	<p>a) Since the purpose of this evaluation is quality and relevance of work experience, which may be acquired in limited time with focused expertise, we request you to reduce the minimum years of experience for experts, whilst keeping a minimum number of relevant projects criteria. b) It is also pertinent to note that since 4D/ SD BIM etc. are new age technologies with recent advent, higher number of years of experience for these specific experts may not be relevant. c) It is also requested that minimum number of years of experience should be only used as a qualifying criteria and not evaluation criteria d) The min years of experience proposed as a minimum qualifying criteria for each key expert is as under:</p> <p>Key experts</p> <p>Project Director cum Team Leader (OSO) 15 BIM Strategy Specialist & BIM Head 10 Change management expert 10 Digital Project Implementation Specialist 10 CDE Specialist 10 4D/ SD BIM Specialist 8 Program Manager (OSO & Governance) 7 Metro Rail Expert 10 Project Manager (Software) 8</p>	<p>As per Tender Conditions.</p>
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<p>Section 3.1: Criterion IV: Qualifications, and competence of the Key Staff to be deployed for the Assignment, Page 9-10, Vol 2</p>	<p>Qualifications, experience and competence of the Key Staff to be deployed for the Assignment</p> <p>Key Professional: Relevant Experience & Eligible Assignments</p> <table border="1"> <thead> <tr> <th>Key experts:</th> <th>Relevant Experience and Eligible Assignments:</th> </tr> </thead> <tbody> <tr> <td>Project Director cum Team Leader (OSO)</td> <td>Minimum 4 years of experience as head / senior management in setup of new team/ OSO include BIM and cloud Collaboration works only.</td> </tr> <tr> <td>BIM Strategy Specialist & BIM Head</td> <td>Minimum 7 years of BIM services management experience including supervision, strategy & guidance experience in implementation of at least three SD BIM projects.</td> </tr> <tr> <td>Digital Project Implementation Specialist</td> <td>Minimum 5 years of BIM project coordination & implementation experience including experience in developing EIR/ BEP/ BIM standards/ BIM Guidelines.</td> </tr> <tr> <td>Specialist CDE</td> <td>Minimum 5 years of BIM Collaboration / CDE</td> </tr> <tr> <td>Specialist</td> <td>Implementation experience.</td> </tr> </tbody> </table> <p>4D/ SD BIM Specialist</p> <p>Minimum 5 years of extensive BIM experience including hands-on experience in implementation of at least 2 nos. of SD BIM projects/ assignments.</p> <p>Maestro Rail Expert</p> <p>Experience of at least 5 years in rail/ metro rail projects in</p>	Key experts:	Relevant Experience and Eligible Assignments:	Project Director cum Team Leader (OSO)	Minimum 4 years of experience as head / senior management in setup of new team/ OSO include BIM and cloud Collaboration works only.	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We recommend the relevant experience and team structure as below:</p> <table border="1"> <thead> <tr> <th>Key experts:</th> <th>Relevant Experience and Eligible Assignments:</th> </tr> </thead> <tbody> <tr> <td>Project Director cum Team Leader (OSO)</td> <td>Minimum 5 projects in OSO role/ Digital Project Management/ BIM across infrastructure projects including Metro/ Railways/ Residential/ Commercial/ Institutional/ Building/ Power Transmission & Distribution/ Oil & Gas etc) with 3 projects as head / senior management in setting up of new teams / OSO setup. Above experience shall include OSO/Governance, digital project management, BIM and cloud Collaboration works.</td> </tr> <tr> <td>BIM Strategy Specialist & BIM Head</td> <td>Minimum 5 years of experience with BIM services/ Digital experience including management experience including strategy & guidance in implementation, and supervision of at least three SD/SD BIM projects. 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Project Manager (Software)	Minimum 3 years of experience as Manager in Software application development application maintenance.
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Project Manager (Software)	Minimum 4 projects in BIM coordination/Digital project management or similar position in developing EIR/ SEP/ SIVA standards/ BIM Guidelines
COE Specialist	Minimum 3 projects of BIM coordination tools / CDE implementation experience
4/ SD BIM Specialist	Minimum 3 projects of experience in Digital project management or similar position in implementing BIM
Metro Rail Expert	Experience of at least 2 projects in rail/metro rail projects in an expert position.
Project Manager (Software)	Minimum 3 projects with software application management in project coordination and supervision.

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Section 3.1: Criterion IV: Qualifications, experience and competence of the Key Staff to be deployed for the Assignment, Page 9-10, Vol 2

Key Professional- Minimum Educational Qualification

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Role: Project Director cum Team Leader (OSO)- B.Tech/BE

Given the strategic nature of assignment, we suggest that for the certain key roles, the minimum educational qualification criteria be enhanced as below:
 Role: Project Director cum Team Leader (OSO)-
 Program Manager (OSO & Governance)
 Digital Project Management / Change management expert
 Min. Edu. Qualification
 MBA / PGDM + B.Tech / BE
 MBA / PGDM + B.Tech / BE

As per Tender Conditions.

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SECTION 3: REQUEST FOR PRE-QUALIFICATION, Page 9, Vol 1

3.1. Tenderer's/ Applicant's Profile & Financial Standing
 Does the applicant have minimum average annual turnover of Rs.100 Crores in (or as considered in the bidder's country of origin
 We agree that there should be a minimum average turnover criterion. However, for a project of Rs. 50 crores, the minimum turnover criterion of Rs. 100 crores seems to be a very low threshold. Since a JV of up to 3 firms is possible, turnover of three small firms can also meet the mentioned criterion. In our prior experience of working with public sector RFPs, this criterion is ideally up to 10X of the project value. In order to allow bids from applicants with a good financial standing and to mitigate risk of sub-optimal delivery from smaller firms, we request this to be increased to Rs. 500 crores. Along with this, the lead partner should have a minimum revenue turnover of Rs. 250 Cr.

As per Tender Conditions.

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Section 1: 7. Key Details, Page 2, Vol 1

Approximate cost of Work : INR 50 Crores
 A novel program of this magnitude & importance to UP Metro, with focus on strategic value delivery from BIM deployment and significant amount of on-ground change management needed will require bringing together high-quality resources and deep global expertise. We also feel that a certain minimum scale of BIM tools will need to be deployed on the ground to extract their full value. In light of these facts, we request you to increase the budget to INR 100 Cr.

As per Tender Conditions.

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CV Evaluation Criterion I
 Educational Qualifications (Weightage: 20%)
 The following criteria will be used for awarding rating/ marks:

Post-Graduation in Engineering/MBA after Engineering	100%
Graduation degree in respective field	75%
Engineering Graduates in respective field	0%
Qualification lesser than Engineering Graduate or Non Engineering educational qualification.	0%

a) CV Evaluation Criterion I: Since the enhanced minimum qualification and relevant minimum experience



<p>Section 3.1: Criterion IV: Qualifications, experience and competence of the Key Staff to be deployed for the Assignment,</p>	<p>Professional Training/ Attachments/ Membership (Weightage: 10%) CV Evaluation Criterion II: Total Work Experience (Weightage: 30%) ➤ Minimum Work Experience as stated for the key professional will earn 80% of full marks. ➤ An experience of up to 3 years beyond than Minimum Experience as required for the key professional will earn 90% of full marks. ➤ An experience of more than 3 years beyond the Minimum Experience as required for the key professional will earn full marks CV Evaluation Criterion III: Experience in similar / relevant assignment (Weightage: 40%) ➤ Minimum Relevant Work Experience as stated for the key professional will earn 80% of full marks. ➤ Relevant experience of up to 3 years beyond than Minimum Relevant Experience as required for the key professional will earn 90% of full marks. ➤ Relevant experience of more than 3 years beyond the Minimum Relevant Experience as required for the key professional will earn full marks</p>	<p>conclusively cover for minimum training quality of key experts, the evaluation weightage for educational qualifications and professional training may please be removed and the same be added to relevant work experience b) CV Evaluation Criterion II & III: As discussed in queries on "Key Professional: Minimum Post-qualification Professional Experience", the evaluation of CVs should be done on number of relevant projects rather than years of experience. Also, contribution of key experts in demonstrating their expertise during presentation should be evaluated. In line with this, we recommend the marking scheme for CVs as follows: CV Evaluation Criterion I (Weightage: 60%) i. Minimum No. of Projects as stated for each key professional will earn 80% of maximum marks ii. Additional 1 No. of Projects beyond minimum requirement will earn 90% of maximum marks iii. Additional 2 or more No. of Projects beyond minimum requirement will earn 100% of maximum marks CV Evaluation Criterion II (Weightage: 40%) Quality of interaction with each expert during presentation to UPMRC</p>	<p>As per Tender Conditions.</p>
<p>Clause 2.28: Bid Guarantee, Page 12, Vol 1</p>	<p>INR 5 Million (50 Lakhs) in the form of Demand Draft / Bank Guarantee. Validity of Tender Security in case of BG should be as per clause 2.28 of ITT</p>	<p>Bank Guarantee should be issued from scheduled commercial bank in India (if the bank is a foreign bank but operating in India will that do), when will the tender be submitted as the Bank guarantee would be valid 180 days from the date of tender submission</p>	<p>The foreign bank should be a scheduled commercial bank in India. For tender submission date kindly refer Annexure I of Addendum 1.</p>
<p>Clause 3.2: Professional Strength, Page 15</p>	<p>1. Does the Applicant have more than 5 years of experience in Building Information Modelling (BIM) services including 4D-5D BIM services, implementation and support as on as on the due date of submittal 2. Has the Applicant provided post implementation support services to customers for a minimum of 3 years</p>	<p>We have signed confidentiality agreements with our clients that limit our ability to disclose their names, information of underlying infrastructure projects in respect of which consultancy services were offered & the contracts / work orders with the clients. While we shall be happy to disclose the same where we are legally permitted to, we request you to accept a self certificate with a brief description of our client and underlying infrastructure project (without disclosing the names), the nature of services we performed for them and duration of the consultancy project and a tentative contract value duly attested by CA.</p>	<p>As per Tender Conditions.</p>
<p>300 Payment Terms</p>	<p>Payment Terms are missing</p>	<p>We would like to propose 15 days as payment terms, once the invoice has been raised.</p>	<p>As per Tender Conditions.</p>
<p>301 Section 1.1: General Definitions, Page 114, Vol 2</p>	<p>Appendix- V, General Conditions of Contract (GCC) Addition of definitions</p>	<p>We request inclusion of the below definitions to make the contract more concrete; 1. "Pre-Existing Intellectual Property" means any Intellectual Property owned by a Party, or licensed to such Party (other than by the other Party), as at the commencement date of the applicable Engagement. 2. "Deliverable" means any final versions of presentations, reports, films, sound and video recordings and other material that CONSULTANT provides to Employer as described in the Proposal Letter, or as otherwise agreed in writing to be delivered by CONSULTANT as part of the Services. 3. "Independent Intellectual Property" means any Intellectual Property developed by a Party independently of an Engagement.</p>	<p>As per Tender Conditions.</p>
<p>302 Clause 2.7 Suspension, Page 119, Vol 2</p>	<p>Appendix- V, General Conditions of Contract (GCC) Suspension clause The Employer may, by written notice of suspension to the Consultant, suspend all payments to the Consultants hereunder if the Consultants fail to perform any of their obligations under this Contract, including the carrying out of the Services, provided that such notice of suspension (i) shall specify the nature of the failure, and (ii) shall request the Consultants to remedy such failure within a period not exceeding thirty (30) days after receipt by the Consultants of such notice of suspension. Such suspension may be revoked on proof of remedial action by the consultant to the satisfaction of the Employer.</p>	<p>We agree to the provision of suspension included however request addition of below mentioned language, "Suspension of an Engagement will not release either Party from any liability that, as at the date of termination or expiry, has accrued but remains unpaid or outstanding."</p>	<p>As per Tender Conditions.</p>



	<p>Prohibition of Conflicting Activities and further restriction of one year after completion of the project</p> <p>3.2.4 Prohibition of Conflicting Activities</p> <p>Neither the Consultant nor their sub-consultants nor the Personnel of either of them shall engage, either directly or indirectly, in any of the following activities:</p> <p>a) during the term of this Contract, any business or professional activities in the Government's country which would conflict with the activities assigned to them under this Contract; or b) after the termination of this Contract, such other activities as may be specified in the SCC.</p> <p>3.2.5. For a period of one year after the expiration of this Contract, the Consultants shall not engage, and shall cause their Personnel as well as their Sub-consultants and their Personnel not to engage, in the activity of a purchaser (directly or indirectly) of the assets on which they advised the Employer under this Contract nor in the activity of an adviser (directly or indirectly) of potential purchasers of such assets. The Consultants also agree that their affiliates shall be disqualified for the same period of time from engaging in the said activities.</p>	<p>The Clause 3.2.4 and Clause 3.2.5 to be replaced by the language stated below,</p> <p>CONSULTANT will not assign consultants who have worked with the Employer to provide services to a competitor of Employer where the services to be provided are similar to the services CONSULTANT has performed for Employer under an Engagement Letter. CONSULTANT agrees that this restriction will last for 12 months from the conclusion of the individual's work with Employer on the Engagement. This restriction will not apply to any senior professionals who serve as CONSULTANT practice area leaders (PALs), any topic experts or advisors, who specialize in an industry, specific business discipline or the use of one of CONSULTANT Tools. The involvement of such an individual in the Engagement will not preclude them from working for other clients in Employer's industry.</p>	<p>As per Tender Conditions.</p>
<p>304</p> <p>Clause 3.6: Accounting, Inspecting and Auditing, Page 12, Vol. 2</p>	<p>Accounting, Inspection and Auditing The Consultants (i) shall keep accurate and systematic accounts and records in respect of the Service hereunder, in accordance with internationally accepted accounting principles and in such form and detail as will clearly identify all relevant time charges and cost, and bases thereof (including such bases as may be specifically referred to in the SCC), and (ii) shall permit the Employer or its designated representative periodically, and up to one year from the expiration or termination of this Contract, to inspect the same and make copies thereof. The Consultants shall also have their accounts relating this project audited once in a year and furnish a copy of this audited accounts to the Employer within three months from the close of each financial year.</p>	<p>We agree to provide auditing rights to the Employer, however. The same shall be restricted to documents strictly pertaining to this project and shall exclude any document which are confidential in nature.</p>	<p>As per Tender Conditions.</p>
<p>305</p> <p>Clause 3.9: Documents Prepared, Page 124, Vol 2.</p>	<p>Documents prepared by the Consultant to be the Property of the Employer</p> <p>All plans, drawings, specifications, designs, reports and other documents prepared by the Consultants in performing the Services shall become and remain the property of the Employer, and the Consultants shall, not later than upon determination or expiration of this Contract, deliver</p> <p>all such documents to the Employer, together with a detailed inventory thereof. The Consultants may retain a copy of such documents. Restrictions about the future use of these documents, if any, shall be specified in the SCC.</p>	<p>To be replaced with,</p> <p>While we agree with the clauses pertaining to ownership of the final deliverable that shall be prepared for the client, it is clarified that any IPR that pre-existed and/ or developed independently during the time of the project shall be retained by us. In light of the same, we propose inclusion of the below mentioned clause, "Pre-Existing Intellectual Property Rights. Each Party owns and retains all rights, title and interests in and to its respective Pre-Existing Intellectual Property and Independent Intellectual Property. Deliverables.</p> <p>BCG hereby (a) assigns to the Company the copyright in the Deliverables except for any third party Intellectual Property; and (b) to the extent the Deliverables contain any of BCG's Pre-Existing Intellectual Property or third party Intellectual Property, BCG grants to the Company and any Permitted Users, a worldwide, non-exclusive, non-transferable and non-sub-licensable, fully paid, licence to use and copy such Pre-Existing Intellectual Property and third party Intellectual Property solely for the purpose of the Company using the Deliverables internally, as contemplated by the Proposal and in accordance with the Agreement. To the extent that the third party Intellectual Property constitutes films, sounds and video recordings, the Company will have the right to copy, perform, use, transmit, broadcast, edit any segments of the third party Materials contained within the Deliverables as specified in the applicable Proposal Letter. The Company agrees to comply with any licensing restrictions imposed by third parties regarding its use of the third party Intellectual Property within the Deliverables as notified by BCG to the Company from time to time.</p>	<p>Clause 3.9 does not restrict use of pre-existing IPRs. However all plans, drawings, specifications, designs, reports and other documents prepared by the Consultants in performing the Services of company shall become and remain the property of the Employer, and the Consultants shall, not later than upon determination or expiration of this Contract, deliver all such documents to the Employer, together with a detailed inventory thereof.</p>



			<p>The Company acknowledges and agrees that the Deliverables are prepared solely for the Company's internal use. The Company will not disclose the Deliverables or make the Deliverables available for use by any third party without the prior written consent of BCG. The Company will procure that any third party to which it wishes to disclose the Deliverables or any other BCG materials or work must first sign BCG's standard form of non-reliance letter. BCG can provide the Company with a copy of this form upon the Company's request. If BCG agrees to the Company disclosing the Deliverables to third parties, the Company agrees that BCG will not be responsible for any Losses incurred by the Company or any third party as a result of or in connection with such disclosure, or the third party's use of, or reliance on the Deliverables or any other aspect of BCG's work."</p>	
306	<p>Clause 6/ 3-4: Limitation of Liability, Page 145, Vol. 2</p>	<p>Special Conditions of Contract (SCC) Limitation of Liability: Except in case of gross negligence or willful misconduct on the part of the Consultants or on the part of any person or firm acting on behalf of the Consultants in carrying out the Services, the Consultants, with respect to damage caused by the Consultants to the Employer's property, shall not be liable to the Employer: (i) for any indirect or consequential loss or damage; and (ii) for any direct loss or damage that exceeds (A) the total payments made and expected to be made to the Consultants under this contract including reimbursable, etc. or (B) the proceeds the Consultants may be entitled to receive from any insurance maintained by the Consultants to cover such a liability, whichever is higher. b) This limitation of liability shall not affect the Consultants' liability, if any, for damage to Third Parties caused by the Consultants or any person or firm acting on behalf of the Consultants in carrying out the Services.</p>	<p>Changes as suggested for the clause to read as, a) Except in case of gross negligence or willful misconduct on the part of any person or firm acting on behalf of the Consultants in carrying out the Services, the Consultants, with respect to damage caused by the Consultants to the Employer's property, shall not be liable to the Employer: (i) for any indirect or consequential loss or damage; and (ii) For any direct loss or damage that exceeds (A) the total payments made to the Consultants under this contract including reimbursable, etc. or (B) the proceeds the Consultants may be entitled to receive from any insurance maintained by the Consultants to cover such a liability, whichever is higher.</p>	As per Tender Conditions.
307	<p>Clause 3.5. Risk and Coverage, Vol. 146, Vol. 2</p>	<p>Various insurances claimed under the RFP The risks and the coverage shall be as follows: a) Third Party motor vehicle liability insurance as required under Motor Vehicles Act, 1988 and Amended Motor Vehicles Act 2019 in respect of motor vehicles operated in India by the Consultants or their Personnel or any Sub-Consultants or their Personnel for the period of Consultancy. b) Third Party liability insurance with a minimum coverage, for INR 0.5 crores for the period of consultancy. c) employer's liability and workers' compensation insurance in respect of the Personnel of the Consultants and of any subcontractant, in accordance with the relevant provisions of Applicable law, as well as, with respect to such Personnel, any such life, health, accident, travel or other insurance as may be appropriate; and d) insurance against loss of or damage to (i) equipment purchased in whole or in part with funds provided under this Contract, (ii) the Consultants' property used in the performance of the Services, and (iii) any documents prepared by the Consultants in the performance of the Services.</p>	<p>BCG agrees that it shall maintain at its expense during the term of an agreement with client, up to contract amount and other insurances with retention amounts that BCG in its sole discretion believes to be appropriate for its business and to be consistent with the practices of similar consulting firms and for BCG's performance of Services for client. An evidence only certificate of insurance can be provided prior to the execution of a contract. In addition, our insurance team has requested that we reserve the right to negotiate the specific language that will be included in the insurance section of an agreement to reflect the actual coverage and policies held by BCG.</p>	As per Tender Conditions.
308	<p>Addition of clause</p>	<p>Digital and software Development</p>	<p>Digital and software Development We would want to discuss further terms and conditions with respect to the digital/ software component involved in the project. We would ensure that any such additional terms are mutually acceptable to both the Parties.</p>	As per Tender Conditions.
309	<p>General Query</p>	<p>Regarding the Past Experience and Project Scope of Services</p>	<p>The overall project is setting up of a Digital Project Management system setup which is not restricted to 5D BIM, the essence of GIS implementation for digital management and IT Managed Services for managing the OSO (Project Management Services) and the complete setup. We request the Authority to include Technical Weightage for past OSO and GIS experience</p>	As per Tender Conditions.
310	<p>General Query</p>	<p>New clause needs to be added in scope of services</p>	<p>To cater effective project management, GIS along with data acquisition technologies like drone/LiDAR will play vital role for real time project monitoring, Land acquisition, utility shifting etc. Same services have been implemented in along with 5D BIM services at Nagpur metro, Pune metro and MSRDC projects. GIS will also enable monitor the safety guidelines because of COVID-19 situation and also drone services can also help to compare with real time video/images for project monitoring.</p>	As per Tender Conditions.



311	General Query	Regarding eligibility for Projects	Request the Authority to consider the experience of Sub Contracting as part of prior experience for completed SD BIM projects.	As per Tender Conditions.
312	General Query	Regarding Completion Certificate from the client	Request the Authority to consider the following request for the availability of completion certificates from the client: Due to the current COVID Scenario, the client is busy in handover and other important functions of the project hence they are insisting to provide the completion of the project on the mail and certification at a later stage. Also, the proof can be stated by the invoice copies and billing details for the project along with a self-certified undertaking by the Bidder's Authorized Signatory to claim the experience.	As per Tender Conditions.
313	General Query	Regarding SD BIM Application	Vendor shall be allowed to use best in class different applications to achieve the integrated digital SD BIM system.	Bidder has to propose a solution meeting the requirement of document.
314	Volume 3 Pg.10 APPENDIX • XVIII-3-11	<p>□ In case tenderer/ applicant has not considered any Software/ Solution/ service which is necessary for the project requirement, the same needs to be brought by the tenderer/ applicant at no additional cost to UPMRC.</p> <p>□ The requirement of the licenses for UPMRC and GC staff is mentioned below:</p> <p>Software Requirement of Licenses</p> <p>1 SD BIM software (Eg. Trimble Vico suite or similar) 5 Licenses office</p> <p>2 Common Data Environment (Eg. Autodesk BIM 360 or similar) 10 Licenses</p> <p>3 3D Modeling Software (Eg. Revit or similar) 5 Licenses</p>	<p>No of licenses required for UPMRC/ projects should be part of RFP. Bidder will not be able to predict no of users/licenses for using proposed services at this stage because of involvement of multiple stakeholders of both project with respect to SD BIM system.</p> <p>Based on the bidder's experience in past projects no of licenses are at lower side.</p> <p>So, bidder request this to authority, please provide exact no of licenses requirements.</p> <p>System Architecture and infrastructure sizing would be reiterated based on the increase no of licenses in UPMRC system.</p> <p>We request authority to reevaluate and confirm the licensing requirement. So, Technical and commercial bid can be submitted.</p>	There will be about 10 Contractors + 1 No. GC + 2 No. DDC (1 each for Kanpur and Agra). Bidder is required to estimate their solution sizing accordingly.
315	Volume 1: Page No.11; Section 3.2 Professional Strength, Point No.2	Has the Applicant provided post implementation support services to customers for a minimum of 3 years.	Since the project requires specific experience of the SI in managing IT services, we request the Authority to kindly change the clause as: The Bidder should have experience in the areas of IT Managed Services (Data Managed Services using GIS / Capacity Building / Process set-up / BPR) in at least two project in last 10 years in India as on BDD.	As per Tender Conditions.
316	Volume 1: Page No.12; Section 3.3 BIM Implementation Experience; Point No.1	Has the Applicant substantially completed at least one SD BIM implementation in infrastructure projects including Metros/ Railways/ Residential/ Commercial/ Institutional building etc. having project cost not less than INR 500 Crores during last 5 years as on the due date of submittal.	Since major infrastructure projects for SD BIM are new and it is under implementation, therefore we request the authority to consider the work order for ongoing projects to showcase the experience under the criteria in order to have a competitive bidding.	As per Tender Conditions.
317	Volume 1: Page No.12; Section 3.3 BIM Implementation Experience ; Point No.1	Documentary Evidence to be enclosed in support: BIM Implementation completion Certificate.	Since major infrastructure projects in the country are ongoing, request the Authority to allow BIM implementation in Progress Certificate from the client along with Work Order/ BOQ from the client of the referred projects.	As per Tender Conditions.
318	Volume 2: Page No.4; Section 3.1 Evaluation of Technical Proposal ; Criterion I	Experience in SD BIM deployment/ implementations in infrastructure projects including Metros / Railways / Residential/ Commercial/ Institutional Building projects etc. during the last five (5) years as on 30.04.2020. Value of each project being more than Rs 500 crores.	In general, the Corporate / Commercial Clients do not disclose the project cost hence it would be difficult to get a proof of the project cost of INR 500 cr from the client as major private clients do not provide certificate stating the Project Cost. Request the Authority to consider Self Declaration provided by the Bidder.	As per Tender Conditions.
319	Volume 2: Page No.4; Section 3.1 Evaluation of Technical Proposal ; Criterion I	Experience in SD BIM deployment/ implementations in infrastructure projects including Metros / Railways / Residential/ Commercial/ Institutional Building projects etc. during the last five (5) years as on 30.04.2020. Value of each project being more than Rs 500 crores.	Since SD BIM is a new concept and recent technology, the implementations of the same are very limited in Indian Space, hence we request the Authority to consider maximum 2 number of projects under this criterion.	As per Tender Conditions.
320	Volume 2: Page No.4; Section 3.1 Evaluation of Technical Proposal ; Criterion I	Specific experience of the firms relevant to this type of Assignment Documentary Evidence: For ongoing projects to be eligible, progress attained should be 80% or more.	Since major infrastructure projects for SD BIM are new and it is under implementation, therefore we request the authority to consider the work order for ongoing projects to showcase the experience under the criteria in order to have a competitive bidding.	As per Tender Conditions.
321	Volume 2: Page No.6; Section 3.1 Evaluation of Technical Proposal ; Criterion II	Specific experience of the firms relevant to this type of Assignment Documentary Evidence: For ongoing projects to be eligible, progress attained should be 80% or more.	Since major infrastructure projects for SD BIM are new and it is under implementation, therefore we request the authority to consider the work order for ongoing projects to showcase the experience under the criteria in order to have a competitive bidding.	As per Tender Conditions.



322	Volume 2: Page No.6; Section 3.1 Evaluation of Technical Proposal	Evaluation of Technical Proposal	Suggestions are incorporated in Annexure 1 at the end of the document.	<Blank>
323	Volume 2: Page No.09; Criterion IV; Key S.No.1 Professionals, Project Director cum Team Leader (OSO); Minimum Post Qualification Professional Experience	Minimum Post Qualification Professional Experience: 20 Years Relevant Experience & Eligible Assignments: Minimum 4 years of experience as head / senior management in setting up of new teams / OSO setup. Above experience shall include BIM and cloud collaboration works only.	There are limited projects in the country with integrations of BIM & cloud services, the cloud services have been started incorporated by clients recently, hence we request the Authority to consider the following: Minimum Post Qualification Professional Experience: 15 Years Relevant Experience & Eligible Assignments: Minimum 4 years of experience as head / senior management in setting up of new team's / OSO setup.	As per Tender Conditions.
324	Volume 2: Page No.10; Criterion IV; Key S.No.2 Professionals, BIM Strategy Specialist & BIM Head	BIM Strategy Specialist & BIM Head: Relevant Experience & Eligible Assignments: Minimum 7 years of BIM services management experience including supervision, strategy & guidance experience in implementation of at least three 3D BIM projects.	There are limited projects in India related to 3D BIM, hence we request the Authority to consider 3D/4D/5D BIM related project experience for the specialist.	As per Tender Conditions.
325	Volume 2: Page No.10; Criterion IV; Key S.No.2 Professionals 4D/5D BIM Specialist; Minimum Post Qualification Professional Experience	Minimum 5 years of extensive BIM experience including hands-on experience in implementation of at least 2 nos. of 3D BIM projects/ assignments.	There are limited projects in India related to 3D BIM, hence we request the Authority to consider experience of 2 nos. of 3D BIM project assignments instead of 5 years of experience in 4D/5D BIM related implementation	As per Tender Conditions.
326	Volume 2: Page No.10; Criterion IV; Key S.No.3 Professionals, Digital Implementation Specialist	Digital project implementation Specialist Minimum Post- Qualification Professional Experience: 10 Years Relevant Experience & Eligible Assignments: Minimum 5 years of BIM project coordination & supervision experience including experience in developing EIR/ BEP/ BIM standards/ BIM Guidelines etc.	Request the Authority to consider the following experience for best fit as per the proposed position: Digital project implementation Specialist Minimum Post- Qualification Professional Experience: 10 Years Relevant Experience & Eligible Assignments: Minimum 3 years of BIM project coordination & supervision experience in developing EIR/ BEP/ BIM standards/ BIM Guidelines /3D BIM etc. and implementation with 2 SD BIM project assignments.	As per Tender Conditions.
327	Volume 1: Page No.2; Section 7 Key Details: Date & Time of Submission of Tender	23.06.2020 @ 15:00 Hrs	In order to provide a competitive Techno Commercial proposal and considering the vast documentation and partnering involved in bid submission, we would require extension of 4weeks from the date of receiving reply of pre-bid queries.	Please refer Annexure- 1 of Addendum-1
328	Volume 2: Page No.11; Criterion IV; CV Evaluation a) Qualification & Certification	Post-Graduation in Engineering/MBA after Engineering Graduation degree in respective field	Please consider PG diploma in construction project management or equivalent from any institution.	As per Tender Conditions.
329	Volume 2: Page No.11; CV Evaluation Criterion I: b) Professional Training/ Attachments/ Membership	b) OEM certification relevant to BIM and CDE technology (1 mark per certification). - short term training course not less than a month relevant to BIM / CDE (1 mark per course) - Membership of local reputed institutions, foreign institutions/ bodies (1 mark per institution; subject to maximum of 10marks)	This point is not relevant with respect to project delivery. Please consider project delivery experience for evaluation criteria. Hence, kindly delete the respective requirements from CV evaluation criterion 1.	As per Tender Conditions.
330	Volume 2 Pg 27 Clause 2.2.2.2 Point E	To improve the safety and speed of inspections and maintenance with the ability to see asset information within the context of 3D models during operations	As specified in exclusion, Facility management is not part of scope of services. Request this to authority, kindly remove this point from clause 2.2.2.2.	Facilities Management is not a part of the scope of work required under this tender.
331	Volume 2 Clause G, Page 22	If the employer, in its sole discretion and for any reason whatsoever, decides to terminate this Contract.	Since the Consultant would be incurring heavy expenditure towards the project both in terms of manpower and equipment costs, any termination on account of convenience shall have a major impact on Consultants financials. Hence, request for deletion of this clause.	As per Tender Conditions.
332	Volume 2 Clause f, Page 131	Liquidated Damages	It is not clear on the extent of liquidated damages (LD) which would be levied against each deficiency. Only maximum cap of 10% is mentioned. We suggest LD of 0.5% per week of delay towards undelivered portion of equipment or work is levied.	As per Tender Conditions.



333	Volume 2 SLA, Page 95	Liquidated Damages	It is not clear on the extent of Liquidated damages (LD) which would be levied against each SLA deficiency. Only maximum cap of 10% is mentioned.	As per Tender Conditions.
334	Volume 2 Clause 2.2.2.10.4	Entire source code as applicable	We confirm that source code for only customized or developed application shall be submitted to the Customer. The source code for any Commercial Off the Shelf (COTS) shall remain with respective OEM and only Right to Use of the software will be issued to the Customer.	Source code requirement refers to any custom development done by the bidder for meeting the requirements. COTS software's source code is not expected.
334	Volume 2 Clause 8.2, Page 149	Dispute Resolution	We request that standard dispute resolution process is followed as below: All disputes and differences arising between the parties hereto, including any dispute or difference in regard to the interpretation of any provision or terms or the meaning thereof, or in regard to any claim of one party against the other or in regard to the rights and obligations of any parties hereto under this Agreement or otherwise, howsoever, shall be referred to arbitration and such arbitration shall be governed by the provisions of the Arbitration and Conciliation Act, 1996 along with its modification/amendment. Either Party shall appoint its respective arbitrator and those two arbitrators in turn shall appoint a presiding arbitrator whose decision shall be binding on the Parties hereto. The venue of arbitration shall be Lucknow and courts of Lucknow shall have exclusive jurisdiction to try and entertain any proceedings under the above Act. The cost of the arbitration shall be borne by both the parties equally.	As per Tender Conditions.
334	NTT, Section 2.2- Page No.5, Format & Signing of Tender	The tenderer/ applicant shall prepare and submit One (1) original of the EMD/Bid Security, One (1) original and One (1) copy of the documents comprising the Proposal for prequalification of tenderer/applicant and Technical Proposal, original and One (1) copy of the Financial Proposal of the tender, as described in paragraph 2.1 of these Instructions To Tenderer clearly marked "ORIGINAL" and "COPY". In the event of discrepancy between them, the original shall prevail	Due to the current ongoing COVID scenario it might be uncertain to physically submit the hard copy of the bid in original to the client office. Hence we request the Authority to kindly consider the digital submission only and in case of requirement the bidder shall produce the original hard copy of the bid document.	As per Tender Conditions.
335	Clause 7, Key Details: (Page 2, Vol-1	Last date of issuing Reply to Pre-bid Queries & issue of addendum (if any) = 15.06.2020 Date & time of Submission of Tender = 23.06.2020 @ 15.00 hrs	As we understand, the submission has to been done in hard copy at Lucknow. We are based in New Delhi, so logistics is involved in travel during this Covid 19 restrictions etc. Also, as per normal industry practice at least 2 weeks time is permitted for tender submission after issue of an addendum. So, it is requested that time extension may be allowed for at least 10 days or minimum one week definitely. Date & time of Submission of Tender = 30.06.2020 @ 15.00 hrs	Please refer Annexure-1 of Addendum-1
336	APPENDIX * XVIII-3-II - COST OF SOFTWARE & LICENSSES (Page 9), Vol-3	Software & Licenses COTS Solutions, other required Tools & Licenses Customized Solutions & Other software/ licenses/tools etc required for implementation of project	There are mainly three COTS solutions required as per RFP requirements, i.e for 3D BIM for QA, SD BIM & CDE. Also a fixed number of resources for specified duration are required to be deployed by tenders for implementing the 3D BIM QA, SD BIM & CDE solution, as per list provided in RFP. For facilitating apple to apple comparison of bids, it may be appropriate to specify at least minimum number of such packages/ solutions. If there is any difficulty in doing so, at least UPMIRC could clearly specify in RFP that tender should ensure that all the resources specified for various functions should have access to the required COTS software, customized solutions & other software licenses, without any loss of time during working hours, to ensure proper productivity of deployed resources.	There will be about 10 Contractors + 1 No. GC + 2 No. DDC (1 each for Kanpur and Agra). Bidder is required to estimate their solution sizing accordingly.
337	APPENDIX * XVIII-3-III COST OF HARDWARE AND HOSTING (Page 12), Vol-3	No of hardware in terms of Servers, Work Stations etc has not been specified.	It may be better to specify certain numbers, or at least some broad frame work. Clarification / elaboration required.	There will be about 10 Contractors + 1 No. GC + 2 No. DDC (1 each for Kanpur and Agra). Bidder is required to estimate their solution sizing accordingly.
338	Clause 3.3. BIM Implementation Experience (Pp 12), Vol-1	Is the Applicant (directly or in consortium with Agencies) a value added reseller or certified system integrator or agency with the principal of the OEM solutions proposed for a minimum period of 1 years as on 31st March 2020.	It takes several years of relationship for a value added reseller or certified system integrator or agency with the principal of the OEM solutions proposed to acquire know-how to provide SD BIM implementation services to a client for a large metro rail network project for a new city. One year of relationship is insufficient. The period mentioned in the clause should be increased to minimum period of 3 years' as on 31st March 2020 instead of '1 year'.	As per Tender Conditions.



339	<p>Clause 1, 3-4, OEM Qualification (Pp 13), Vol-1</p> <p>Does the proposed Commercial Off The Shelf (COTS) 5D BIM products (i.e. each of the COTS software proposed as part of proposed BIM solution) have at least 10 implementations in infrastructure projects including Metros/ Railways/ Residential/ Commercial/ institutional building project etc.</p> <p>Documentary Evidence to be enclosed in support</p> <p>Self-declaration supported by Certificates from Client(s) of the OEM</p>	<p>All of the Commercial Off The Shelf (COTS) 5D BIM products are sold by OEM through Partners/ Value Added Resellers and do not directly deal with customers. So, obtaining certificates from clients by the OEM is not feasible, as they don't have direct access to the client.</p> <p>Most of the OEMs are international organizations bound by their processes & not expected to provide such certifications.</p> <p>Under the Documentary Evidence to be enclosed in support – the following could be substituted:</p> <p>"Self-declaration supported by Copies of PO of the Reseller of the OEM.</p>	<p>Self-declaration by the bidder mentioning software version details, brief scope of work and Value of the eligible work(s), supported by relevant documents like work order, bill of quantities, bill wise details of payment received (certified by CA) and copy of final bill paid by client will also be considered.</p>
340	<p>Clause 2, 3-4, OEM Qualification (Pp 13), Vol-1</p> <p>Does the functionality and features of the proposed 5D BIM solution substantially meet the functional requirements as mentioned in the section 2.2.3 of TOR.</p>	<p>We could not locate the section 2.2.3 of TOR.</p> <p>Please clarify.</p>	<p>Please refer Annexure-7 of Addendum-1</p>
341	<p>Clause 5, 3-4, OEM Qualification (Pp 13), Vol-1</p> <p>Does the proposed CDE product have at least 10 implementations in infrastructure projects including Metros/ Railways/ Residential/ Commercial/ institutional building projects etc.</p> <p>Documentary Evidence to be enclosed in support</p> <p>Self-declaration supported by Certificates from Client(s) of the OEM</p>	<p>All of the Commercial Off The Shelf (COTS) 5D BIM products are sold by OEM through Partners/ Value Added Resellers and do not directly deal with customers. So, obtaining certificates from clients by the OEM is not feasible, as they don't have direct access to the client.</p> <p>Most of the OEMs are international organizations bound by their processes & not expected to provide such certifications.</p> <p>Under the Documentary Evidence to be enclosed in support – the following could be substituted:</p> <p>"Self-declaration supported by Copies of PO of the Reseller of the OEM.</p>	<p>Self-declaration by the bidder mentioning software version details, brief scope of work and Value of the eligible work(s), supported by relevant documents like work order, bill of quantities, bill wise details of payment received (certified by CA) and copy of final bill paid by client will also be considered.</p>
342	<p>Clause 2.28, The bid guarantee/ EMD (Pp 8) Vol-1</p> <p>The bid guarantee/ EMD for INR 5 million (Rs. Fifty Lakh Only) is asked to be submitted.</p>	<p>We notice that generally the bid guarantee/ EMD is exempted for Micro & Small Enterprises (MSME) as per policy issued by Department of Micro, Small & Medium Enterprises (MSME). We have seen this provision in DMRC tenders as well.</p> <p>It is requested that in case Lead Bidder is a registered Micro & Small Enterprises (MSME), the EMD amount may be exempted.</p>	<p>As per Tender Conditions.</p>
343	<p>Educational qualification & Certain Key Professionals have been included for evaluation purposes, but these are required for a very short period during the 'go live' phase of 6 months. Like: Min. no. & main months of Key Professionals - Digital Project Implementation Specialist (3 months) Appendix - VIII (Pp 134 & 135), Vol 2 - CDE Specialist (6 months)</p>	<p>Attracting right specialist talent for such short duration assignment & ensuring their availability, matching proposed assignment implementation timeline, after securing contract, could be a challenge. We wish to get a clarification that can we utilize the services of such professionals to switch & perform other suitable roles in OSO, meeting laid down requirements, after role is over during 'go-live' period.</p> <p>Seek your confirmation.</p>	<p>This may be permissible subject to the professional meeting the requirements of the position and with prior approval of UPMRC. However, one professional shall not be allowed to look after the work of two positions simultaneously.</p>
344	<p>Track 2: Implementation of 5D BIM; 2.2.2.6 Dynamic Feedback; Synchronize with the Source to Resolve Issues (a) (Pp 28)</p> <p>In the clause 2.2.2.6, the mention is made of ' and comment on 2D and 3D i-models and PDFs.'</p>	<p>It is proposed that reference to 3D i-models, which possibly relates to a specific s/w package may not be necessary and it could simply be said 'comments on 2D and 3D models and PDFs.'</p> <p>The relevant sentence could simply be " and comment on 2D and 3D models and PDFs."</p>	<p>To be read as : " and comment on 2D and 3D models and PDFs."</p>
345	<p>b) System Maintenance and Management (Pg 42), Vol-2</p> <p>Performing periodic backup of data</p>	<p>Would UPMRC be expecting backup server to be located in their office & providing space for deploying of or same or it would have to be located at OSO office in Lucknow?</p> <p>Please clarify.</p>	<p>As per Tender Conditions.</p>
346	<p>General query in respect of 3D BIM modelling of the project being carried out/ proposed to be carried out by DDCs for the project</p> <p>APPENDIX XVIII-3-II Requirement of 3D Modeling Software (Eg. Revit or similar), Vol 3</p> <p>We understand that certain DDCs contracts for Kanpur & Agra Metro Rail projects are already awarded and as per current RFP 3D BIM they are required on develop 3D BIM models of their corresponding awarded design work.</p>	<p>Kindly intimate the 3D BIM software package, which is specified to be adopted by them for development & submission of 3D BIM models of their corresponding design work in their scope.</p> <p>Request for providing the required information.</p>	<p>The solution proposed by the bidder must be able to work with the models generated from the DDCs.</p>



<p>347 APPENDIX • XVIII-3-III Cost of Hardware and Hosting (Pp No 12), Vol-3</p>	<p>Point no 4.2 Hosting Charges (DR)</p>	<p>Where would UPMRC expect DR Storage to be located? Can cloud storage be proposed for DR Storage? Please clarify.</p>	<p>Bidder has to propose the solution.</p>
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Summary Sheet of ADDENDUM No.-1: Contract KNPAGBIM-01

Contract KNPAGBIM-01: Supply, Installation & Support of Digital Project Management System (DPMS) using Building Information Modeling (BIM) Technology			
5. NO.	Existing Clause / Pg. No.	Clause in Existing Tender Document	Revised Clause
1	Clause 7. Key Details of Section 1: Letter of Invitation (LOI), Page 2	Please refer the table under clause 7, key details.	Please refer the table under clause 7, key details.
2	Bullet a, Terms of Reference : Timeline, Vol-2, Page 98	a. T – Project start date i.e. the date of receipt of Letter of Acceptance of Award from Bidder Or Seven (14) days after issuance of Letter of award to Bidder by UPMRC whichever is earlier.	a. T – Project start date i.e. the date of receipt of Letter of Acceptance of Award from Bidder Or Seven (14) 07 days after issuance of Letter of award to Bidder by UPMRC whichever is earlier.
3	Clause 2.1, GCC, Vol-2, Page 117	This Contract shall come into force and be effective from the date of issue of Letter of Acceptance to the Consultant. Substantial mobilization of the professional personnel and staff as required should be completed within the first forty-five days period.	This Contract shall come into force and be effective from the date of issue of Letter of Acceptance to the Consultant. Substantial mobilization of the professional personnel and staff as required should be completed within the first forty-five days period. <u>two days period.</u>
4	Special Condition of Contract (SCC), Caluse 12, Vol-2, Page-147	DELETED	Please refer the revised Clause 12
5	Special Condition of Contract (SCC), Caluse 13, Vol-2, Page-147-148	Please refer the clause 13 of Special Condition of Contract (SCC) of vol-2 at page no 147-148	Please refer the revised clause 13 of Special Condition of Contract (SCC) of vol-2.
6	Clause 3.3 BIM Implementation Experience, Vol-1 (Section 3), Page-12	Information to be provided as per Annexure-9 and BIM Implementation completion certificate along with work order/ BOQ from Client(s) of the referred projects.	Information to be provided as per Annexure-9 and BIM Implementation completion certificate along with work order/ BOQ from Client(s) of the referred projects. <u>For ongoing projects to be eligible, progress attend should be 80% or more</u>
			Annexure-4 Page 147A & 147 B
			Annexure-5 Page 148R, 149, 150, 151 & 152
			Annexure-6 Page-12R



5. NO.	Existing Clause / Pgs. No.	Clause in Existing Tender Document	Revised Clause	Revised Clause placed as
7	Clause 3.4 OEM Qualification, Vol-1 (Section 3), Page-13	2. Does the functionality and features of the proposed SD BIM solution substantially meet the functional requirements as mentioned in the section 2.2.3 of TOR.	2. Does the functionality and features of the proposed SD BIM solution substantially meet the functional requirements as mentioned in the section 2.2.3 <u>2- Functional Requirement specification (FRS)</u> of TOR.	Annexure-7 Page-13R
8	Appendix-VIII, Vol-2, Minimum key/supporting professional, Page-134	1. Project Director cum team leader - 1++(36)	1. Project Director cum team leader - 1++(36 <u>48</u>)	Annexure-8 Page-134R
9	Section 5, Service Level Agreement, Vol-2, Page-94	3. Delay in any of the project milestones >7 days	3. Delay in any of the project milestones > 7 <u>days</u> < <u>7</u> days	Annexure-9 Page-94R
10	Appendix-VIII, Vol-2, Minimum key/supporting professional, Page-137		21. Project Manager Infrastructure & Management • Graduate in Computer Science/Information Technology/Electronics Engg with 5+ years' experience with 3+ years experience in network management.	Annexure-10 Page-137R
11	Section-2, Functional Requirement Specification (SFR), Vol-2, Page-63	214. Ability to create Line of Balance (LOB)/ Flowline scheduling 216. Ability to Line of Balance (LOB)/ Flowline seamlessly linking of Gantt Chart & Network view for visual schedule optimization.	214. Ability to create Line of Balance (LOB)/ Flowline scheduling <u>or any industry standard Critical Path Method for scheduling</u> 216. Ability to Line of Balance (LOB)/ Flowline <u>or any industry standard Critical Path Method for seamlessly linking of Gantt Chart & Network view for visual schedule optimization.</u>	Annexure-11 Page-63R



S. NO.	Existing Clause / Pg. No.	Clause in Existing Tender Document	Revised Clause	Revised Clause placed as
12	Clause 2.2.2.2, design Review, Vol-2, TOR, Page-27	Thus the integrated master 3D model will these review solutions should be able to create intelligent 3D pdf's that can be used forcan be created to review the model in detail	Thus the integrated master 3D model will these review solutions should be able to create intelligent 3D pdf's or any other open Format that can be used forcan be created to review the model in detail	Annexure-12 Page-27R
13	Clause 4.1, Project Timeline, Vol-2, TOR, Page-97	High Level Design, low level design document and System Architecture document (in compliance with Annexure A of the RFP	High Level Design, low level design document and System Architecture document (in compliance with Annexure A Section -3 of TOR of the RFP)	Annexure-13 Page-97R
14	Clause 2.2.2.6(a), Dynamic Feedback, Vol-2, TOR, Page-28	a. The collaboration system should support a dynamic.....design software – and comment on 2D and 3D i-models and PDFs. When markups include an audit trail of all comments and changes.	a. The collaboration system should support a dynamic.....design software – and comment on 2D and 3D i-models and PDFs. When markups include an audit trail of all comments and changes.	Annexure-14 Page-28R



discussed in this Request for Proposal (RFP) documents under Volume-1 and Volume-2.

7. Key Details:

Approximate cost of work	INR 50 Crores
Bid Guarantee/EMD Amount	INR 5 Million (50 Lakhs) in the form of Demand Draft / Bank Guarantee. Validity of Tender Security in case of BG should be as per clause 2.28 of ITT.
Completion period of the Project	54 months
Tender documents on sale	From 05.05.2020 to 05.06.2020 (between 09:30 Hrs. to 17:30 Hrs.) on working days
Cost of Tender documents	INR 23600/- (inclusive 18% GST) (In form of Demand Draft in favour of "Uttar Pradesh Metro Rail Corporation Ltd." payable at Lucknow.)
Last date of Seeking Clarification	09.06.2020
Pre-bid Meeting	09.06.2020 @ 15.00 Hrs
Last date of issuing Reply to Pre-bid Queries & issue of addendum (if any)	15.06.2020-04.08.2020.
Date & time of Submission of Tender	23.06.2020 @ 15:00 hrs 25.08.2020 @ 15:00 hrs
Date & time of opening of Tender	23.06.2020 @ 15:30 hrs 25.08.2020 @ 15:30 hrs
Authority and place for purchase of tender documents, seeking clarifications and submission of completed tender documents	Chief Engineer/ Contract Uttar Pradesh Metro Rail Corporation Ltd., Administrative Building, Vipin Khand, Gomti Nagar, Near Dr. Bhimrao Ambedkar Samajik Parivartan Sthal, Lucknow-226010, Uttar Pradesh, India Email: cecontractlmrc@gmail.com

NOTE: Uttar Pradesh Metro Rail Corporation (UPMRC) reserve the rights to amend above the dates & time, if so required.

8. The Key components of the scope of work are as mentioned below:

- Track 1: Setting up Owner Support Office
- Track 2: Implementation of 5D BIM (including procurement & deployment of software)
- Track 3: IT Infrastructure procurement, supply, installation for OSO set-up
- Track 4: Helpdesk Setup and Operations
- Track 5: Training and Capacity Building
- Track 6: Operations and Maintenance of the System

The detailed scope of the project for each track is detailed under Terms of Reference (TOR) of RFP Document: Vol.2 (Technical Package).

9. The Briefs of Kanpur & Agra Metro Rail Projects are detailed under in RFP Document: Vol.2 (Technical Proposal) as Appendix I.1, I.2A & I.2B.



Commissioning and Go-Live	Benchmarking report, Load testing and other tests	T+21
	Deployment of software licenses	T+22
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	Go-Live	T+24
Training and Capacity Building		
Training (Part-I)	Preparation of training plan and strategy (for all stakeholders including citizens)	T+15
	Preparation of training material (CBTs, Presentations, Documents, Help modules etc.)	T+18
	Detailed training on functionalities of the application and the underlying technologies to UPMRC	T+20-24
	Training completion report	T+36
Data Migration		
Migration	Deployment of required tools and Data Migration	T+22
Completion report	Data Migration Completion report	T+24
Helpdesk		
Set up	Setting up of required infrastructure for Helpdesk (including availability of landline and mobile numbers)	T+24
Team deployment	Deployment and training to helpdesk team	T+28
Go-Live	Go-Live of helpdesk	T+30
Operations and Maintenance after Go-Live		
Quarterly reports (within 2 weeks after end of every quarter)	SLA Compliance report	Ongoing
	Project Status Report	Ongoing
	Change Control Note and Report	Ongoing
	Issue/Incident reports	Ongoing

- T – Project start date i.e. the date of receipt of Letter of Acceptance of Award from Bidder Or Seven (14) 07 days after issuance of Letter of award to Bidder by UPMRC whichever is earlier.
- For all deliverables submitted by Bidder, UPMRC will approve /reject /provide feedback to the Bidder/Agency within seven (7) working days after submission of a deliverable.
- Order for infrastructure items including hardware, COTS Software licenses and other system software etc. shall be placed by the Bidder only after prior approval from UPMRC.



In case the Consultant consist of a joint venture of more than one entity, the Members hereby authorize the entity specified in the SCC to act on their behalf in exercising all the Consultant's rights and obligations towards the Employer under this Contract, including without limitation the receiving of instructions and payments from the Employer.

1.9. Authorised Representatives

Any action required or permitted to be taken, and any document required or permitted to be executed, under this Contract by the Employer or the Consultant may be taken or executed by the officials specified in the SCC.

1.10. Taxes and Duties

Unless otherwise specified in the SCC, the Consultants shall pay all taxes (Except GST), cesses, duties, fees and other impositions as may be levied under the Applicable Laws in India. All payments to both resident and non-resident consultants, sub-consultants etc., will be subject to deduction of tax at source in accordance with the provisions of the Indian Income tax Act and any other applicable law. In addition, they shall pay all taxes, fees and other impositions as may be leviable in their country of origin, as per their laws and regulations. GST as applicable is payable by UPMRC subject to production of documentary proof by the Consultant.

1.11. Monitoring by Bank

Without assuming the responsibilities of the employer or the consultants, Bank may monitor the services as necessary in order to satisfy itself that it is being carried out in accordance with appropriate standards and is based on acceptable data. As, appropriate, Bank may take part in discussions between the employer and the consultants. However, Bank shall not be liable in any way for the performance of services by reason of such monitoring or participation in discussions. Neither the employer nor the consultants shall be released from any responsibility of this contract by reason of Bank's monitoring or participation in discussion.

2. Commencement, Completion, Modification and Termination of contract

2.1. Effectiveness of Contract

This Contract shall come into force and be effective from the date of issue of Letter of Acceptance to the Consultant. Substantial mobilization of the professional personnel and staff as required should be completed within the first ~~forty-five days period.~~ two days period.

2.2. Commencement of Contract

Commencement of the contract shall be from the date of issue of Letter of Acceptance.

2.3. Expiration of Contract

Unless terminated earlier pursuant to Clause 2.8 hereof, this Contract shall terminate when pursuant to the provisions hereof, the Services have been completed and the payments of remuneration and reimbursable expenditures have been made.

2.4. Entire Agreement

This Contract contains all covenants, stipulations and provisions agreed by the Parties. No agent or representative of either Party has authority to make, and the parties shall not be bound by or be liable for, any statement, representation, promise or agreement not set forth herein.



the currency of the foreign/ local currency portion of the advance payment separately and at no time shall be less than the amount of outstanding advance.

6.4(d) Payments in INR shall be made to the following accounts:-

13

8.2

Disputes shall be settled by arbitration in accordance with the following provisions:

(i) ~~Nomination of Arbitrators~~

~~Each dispute submitted by a party to Arbitration shall be referred to sole Arbitrator/Arbitration Panel composed of three Arbitrators in accordance with the following provisions:~~

- ~~a) Matters to be arbitrated upon shall be referred to a Sole Arbitrator where the total value of the claims in the dispute does not exceed Indian Rs.15 million or where the individual claim in the dispute does not exceed Indian Rs.1.5 million. Beyond the above limits, there shall be an Arbitration Panel comprising of three Arbitrators.~~
- ~~b) In case of sole Arbitrator, the Employer shall prepare a Panel of three Engineers or Experts with the requisite qualifications or professional experience relevant to the field to which the dispute relates, out of which the Consultant will chose one, who will be appointed as the Sole Arbitrator.~~
- ~~c) For forming the Arbitration Panel, the Employer shall make out a panel of five Engineers or Experts with the requisite qualifications or professional experience relevant to the field to which the dispute relates. The~~



- d) ~~Employer and the Consultants shall chose one Arbitrator each from the above panel and two so chosen, shall chose the third Arbitrator from the above panel only, who will act as the "Presiding Arbitrator" of the Arbitration panel.~~
- e) ~~In both cases (b) and (c) above, the panel will be of serving or retired Engineers/ Experts of Government departments or Public Sector Undertakings, residing in India only.~~
- f) ~~If, in a dispute subject to (b) and (c) above, Clause 8.2 of SCC, the Consultant fails to choose the Arbitrator within thirty (30) days after the employer has nominated the Panel, the Employer may apply to the Indian Council of Arbitration, New Delhi, to nominate an Arbitrator from the same panel of Arbitrators given by the Employer for the matter in dispute.~~
- g) ~~If, in a dispute subject to (c) above, Clause 8.2 of SCC, the two chosen Arbitrators fail to appoint third Arbitrator within thirty (30) days after they have been appointed, the Employer may apply to the Indian Council of Arbitration, New Delhi, to nominate the third Arbitrator from the same panel of Arbitrators given by the Employer for the matter in dispute.~~

(ii) Rules of Procedures

Arbitration proceedings shall be conducted in accordance with procedure of the Arbitration & Conciliation Act, 1996, of India as amended from time to time including provisions in force at the time the reference is made.

(iii) Substitute Arbitrators

If for any reason an arbitrator is unable to perform his function, a substitute shall be appointed in the same manner as the original arbitrator.

(iv) Miscellaneous

In any Arbitration proceeding hereunder:

- a) ~~Proceedings shall be held in Lucknow, India only.~~
- b) ~~English language shall be the official language for all purposes. (Note: English language may be changed to any other language, with the agreement of both the parties)~~
- e) ~~The Arbitration Award shall be final and binding and shall be enforceable in any Court of competent jurisdiction, and the parties hereby waive any objection to or claims of immunity in respect of such enforcements.~~

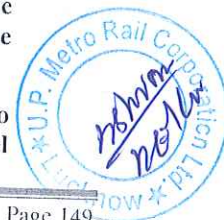
(v) Making of Award

The Arbitrator(s) shall always give item wise and reasoned awards irrespective of the value of claim(s) in the dispute in all cases:

- a) Only such dispute(s) or difference(s) in respect of which notice has been made under Clause 8.2 of GCC but could not be settled through Conciliation, together with counter



- claims or set off, given by the Employer, shall be referred to arbitration. Other matters shall not be included in the reference.
- b) The Arbitration proceedings shall be assumed to have commenced from the day, a written and valid demand for arbitration is received by Managing Director, Uttar Pradesh Metro Rail Corporation Rail Limited, Lucknow (MD/UPMRC).
- c) The disputes so referred to arbitration shall be settled in accordance with the Indian Arbitration & Conciliation Act, 1996 & amended by the Arbitration & Conciliation (Amendment) Act, 2015 and any statutory modification or re-enactment thereof.
- d) 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.
- e) Procedure for Appointment of Arbitrators: The arbitrators shall be appointed as per following procedure:
(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.
(ii) In case of 3 Arbitrators:
1. 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.
2. 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.
3. The third Arbitrator shall be chosen by the two Arbitrators so appointed by the parties out of the panel



of 05 Arbitrators provided to Contractor or from the larger panel of Arbitrators to be provided to them by Employer at the request of two appointed Arbitrators (if so desired by them) and who shall act as Presiding Arbitrator. In case of failure of the two appointed Arbitrators to reach upon consensus within a period of 30 days from their appointment date, then, upon the request of either or both parties, the Presiding Arbitrator shall be appointed by the Managing Director/UPMRC, Lucknow.

4. If one or more of the Arbitrators appointed as above refuses to act as Arbitrator, withdraws from his office as Arbitrator, or vacates his/their office/offices or is/are unable or unwilling to perform his functions as Arbitrator for any reason whatsoever or dies or in the opinion of the MD/UPMRC fails to act without undue delay, the MD/UPMRC shall appoint new Arbitrator /Arbitrators to act in his/their place except in case of new Presiding Arbitrator who shall be chosen following the same procedure as mentioned in para (ii)(c) above. Such re-constituted Tribunal may, at its discretion, proceed with the reference from the stage at which it was left by the previous Arbitrator(s).

5. The Employer at the time of offering the panel of Arbitrator(s) to be appointed as Arbitrator shall also supply the information with regard to the qualifications of the said Arbitrators nominated in the panel along with their professional experience, phone nos. and addresses to the Contractor.

f) Qualification and Experience of Arbitrators (to be appointed as per sub-clause (c) above): The Arbitrators to be appointed shall have minimum qualification and experience as under:
Arbitrator shall be;

a Working / Retired Officer (not below E-8 grade in a PSU with which UPMRC has no business relationship) of any discipline of Engineering or Accounts / Finance department, having experience in Contract Management of Construction Contracts; or a Retired Officer (retired not below the SAG level in Railways) of any Engineering Services of Indian Railways or Indian Railway Accounts Service, having experience in Contract Management of Construction Contracts; or a Retired Officer who should have retired more than 3 years previously from the date of appointment as Arbitrator (retired not below E-8 grade in UPMRC or a PSU with which UPMRC has a business relationship) of any Engineering discipline or Accounts / Finance department, having experience in Contract Management of Construction Contracts or retired judge of any High Court or Supreme Court of India or reputed Chartered Accountant & should be member of ICAI, New Delhi. No person other than the persons appointed as per above procedure and having above qualification and experience shall act as Arbitrator



- g) 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.
- h) Neither party shall be limited in the proceedings before such arbitrator(s) to the evidence or arguments put before the Engineer for the purpose of obtaining his decision. No decision given by the Engineer in accordance with the foregoing provisions shall disqualify him from being called as a witness and giving evidence before the arbitrator(s) on any matter, whatsoever, relevant to dispute or difference referred to arbitrator/s. Neither party shall be limited in the proceedings before such arbitrators to the evidence nor did arguments previously put before during settlement through Conciliation proceedings.
- i) 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 subsection (3) of 298 of the Arbitration and Conciliation (Amendment) Act , 2015 or as amended up to date.
- j) If the contractor(s) does/do not prefer his/their specific and final claims in writing, within a period of 90 days of receiving the intimation from the Employer/Engineer that the final bill is ready for signature of the contractor(s), he/they will be deemed to have waived his/their claim(s) and the Employer shall be discharged and released of all liabilities under the contract in respect of these claims.
- k) Arbitration proceedings shall be held at Lucknow, India and the language of the arbitration proceedings and that of all documents and communications between the parties shall be in English.
- l) The Arbitral Tribunal should record day to day proceedings. The proceedings shall normally be conducted on the basis of documents and written statements. All arbitration awards shall be in writing and shall state item wise, the sum and detailed reasons upon which it is based. A model Time Schedule for conduct of Arbitration proceedings in a period of 180 days / 365 days will be made available to Arbitral tribunal for their guidance. Both the Parties should endeavor to adhere to time schedule for early finalization of Award.
- m) The award of the sole Arbitrator or the award by majority of three Arbitrators as the case may be shall be binding on all parties. Any ruling on award shall be made by a majority of members of Tribunal. In the absence of such a majority, the views of the Presiding Arbitrator shall prevail.
- n) A party may apply for correction of any computational errors, any typographical or clerical errors or any other error of similar nature occurring in the award of a tribunal and interpretation of specific point of award to tribunal within 60 days of the receipt of award.
- o) A party may apply to tribunal within 60 days of receipt of award to make an additional award as to claims presented in the arbitral proceedings but omitted from the arbitral



- award.
- p) **Cost of Conciliation/ Arbitration:-** The fees and other charges of the Conciliator / Arbitrators shall be as per the scales fixed by the employer from time to time irrespective of the fact whether the Arbitrator(s) is/are appointed by the Employer or by the Court of law unless specifically directed by Hon'ble Court otherwise on the matter, and shall be shared equally by the Employer and the Contractor. However, the expenses incurred by each party in connection with the preparation, presentation will be borne by itself.
- q) **Jurisdiction of Courts:** The Court at Lucknow shall have the exclusive jurisdiction to try all disputes between the parties arising out of this agreement.



3.3. BIM Implementation Experience

S. No.	Criteria	Yes	No	Documentary Evidence to be enclosed in support	Remark
1	<p>Has the Applicant substantially completed at least one 5D BIM implementation in infrastructure projects including Metros/ Railways/ Residential/ Commercial/ institutional building etc. having project cost not less than INR 500 Crores during last 5 years as on the due date of submittal.*</p> <p>Note: The Applicant should have experience in green field implementations of 5D BIM projects (work done only on upgrades, add-on solutions, or maintenance or operational support shall not be deemed adequate for qualification) on the proposed solutions.</p>			<p>Information to be provided as per Annexure-9 and BIM Implementation completion certificate along with work order/ BOQ from Client(s) of the referred projects.</p> <p><u>For ongoing projects to be eligible, progress attend should be 80% or more</u></p>	In case of JV/ Consortium, at least one member must fulfil the criteria.
2	<p>Is the Applicant (directly or in consortium with Agencies) a value added reseller or certified system integrator or agency with the principal of the OEM solutions proposed for a minimum period of 1 years as on 31st March 2020.</p>			<p>Certificate from the OEM stating the Partnership.</p>	In case of JV/ Consortium, at least one of the member must fulfil the criteria.

* Project Cost in INR adjusted to 30.04.2020, assuming 5.0% annual inflation rate on compounded basis for INR every year and 2.0% annual inflation rate on compounded basis for foreign currency portion every year.

Conversion of Foreign Currency portion into Rupees will be done at 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.

NOTE:

A "NO" Answer to question 1 & 2 will disqualify the Applicant.

SIGNATURE OF TENDERER
(To be signed by applicant and each member of the group)

Date.....



3.4. OEM Qualification

S. No.	Criteria	Yes	No	Documentary Evidence to be enclosed in support	Remark
1	Does the proposed Commercial Off The Shelf (COTS) 5D BIM products (i.e. each of the COTS software proposed as part of proposed BIM solution) have at least 10 implementations in infrastructure projects including Metros/ Railways/ Residential/ Commercial/ institutional building project etc.			Self declaration supported by Certificates from Client(s) of the OEM	Each of the OEM (s) of the proposed 5D BIM solution must fulfil the criteria.
2	Does the functionality and features of the proposed 5D BIM solution substantially meet the functional requirements as mentioned in the section <u>2.2.3 2-Functional Requirement specification (FRS)</u> of TOR.			Self declaration from the proposed OEM on company letterhead specifying the substantial compliance.	Each of the OEM (s) of the proposed 5D BIM solution must fulfil the criteria.
3	Does the Proposed Solution substantially comply with LOD 300 specifications as mentioned in https:// bimforum.org/ wp-content/ uploads/2013/08/2013-LOD- Specification.pdf			Self declaration from the proposed OEM on company letterhead specifying the substantial compliance.	Each of the OEM (s) of the proposed 5D BIM solution must fulfil the criteria.
4	Is the proposed Common Data Environment (CDE) solution compliant with global BIM standards & ISO standards			Self declaration by the OEM (s)	Each of the OEM (s) of the proposed CDE solution must fulfil the criteria.
5	Does the proposed CDE product have at least 10 implementations in infrastructure projects including Metros/ Railways/ Residential/ Commercial/ institutional building projects etc.			Self declaration supported by Certificates from Client(s) of the OEM	Each of the OEM (s) of the proposed CDE solution must fulfil the criteria.

NOTE:

A "NO" Answer to question 1 to 5 will disqualify the Applicant.

SIGNATURE OF TENDERER
(To be signed by applicant and each member of the group)

Date.....



APPENDIX – VIII

Minimum Key Professional and Minimum Supporting Professional to be deployed

SN	List of Task/Position	Lucknow	Kanpur	Agra
		Nos (Man months)	Nos (Man months)	Nos (Man months)
A	Key Experts			
1	Project Director cum Team Leader	1++(36 48)		
2	BIM Strategy head & BIM Head	1++(12)		
3	Digital Project Implementation Specialist	1++(3)		
4	CDE Specialist	1++(6)		
5	Planning Manager	1(36)		
6	Project Manager – Software	1++(6)		
7	Project Manager – Infra & Networks	1(6)		
8	Metro Rail Expert	1++(9)		
9	Team lead – Testing	1(6)		
10	Capacity Building - Knowledge Transfer & Training to client officials	1(12)		
11	Security Architect	1(6)		
12	4D/ 5D Specialist		1++(32)	
13	Project Planning & BIM Specialist		1(48)	1(48)
14	Manager – Procurement/ Materials Management		1(36)	
15	Manager – MIS		1(48)	1(48)
16	Operations Manager		1(48)	1(48)
B	Supports Professional Staff			
1	BIM Documentation Specialist		1(48)	1(48)
2	System Admin	1(48)		
3	Engineer Infrastructure & Networks	1(36)	1(36)	1(36)
4	Quality Analyst	1(24)		
5	Solution Architect	1(6)		
6	Analytics Expert	1(6)		
7	Executive Assistant	1(48)	1(48)	1(48)
8	4D/ 5D BIM Specialist (Jr)		3(48)	3(48)
9	3D BIM Specialist – QA		2(36)	2(36)
10	4D/ 5D BIM Trainer		1(12)	1(12)



Interpretation & General Instructions

During O&M phase, the SLA parameters shall be monitored on a monthly basis as per the individual SLA parameter requirements. In case the service levels cannot be achieved at service levels defined in the tables below, it shall result in a breach of contract and shall invoke liquidated damages.

SLAs would be reported monthly. A Service Level breach will occur if the Bidder/Agency fails to meet Minimum Service Levels on a monthly basis for a particular Service Level. Root cause analysis (RCA) to be prepared for all cases of breach in SLA's and shared with UPMRC.

However, liquidated damages would be levied every quarter. The percentage of SLA violation would be the average of monthly SLA measurements for the months in that respective quarter.

Overall Availability and Performance Measurements will be on a quarterly basis for the purpose of Service Level reporting. Month wise "Availability and Performance Report" will be provided by the Bidder/Agency every quarter in the UPMRC suggested format and a review shall be conducted based on this report. Availability and Performance Report provided to the UPMRC shall contain the summary of all incidents reported and associated performance measurement for that period.

Maximum Liquidated damages are capped at 10% of Total Project Value. If the liquidated damages during Development and Implementation phase exceed 10% of the Total project value, then UPMRC reserves the right to terminate the contract.

In case there are successive breaches of SLA's for two quarters, UPMRC can issue show cause notice to the Bidder/Agency to explain the non-performance. Also meeting may be called wherein Bidder/Agency needs to explain the action taken to prevent such recurrences in future. This is without prejudice to other rights of UPMRC.

Sr. No.	SLA Parameter	Description	Target
1.	Team mobilization and commencement of work including deployment of key personnel on site	Deployment of identified key personnel in UPMRC, mobilization of team and commencement of work as per the project schedule	<7 working days
2.	Change in named key personnel	Key personnel team deputed at UPMRC's office to consist of same members whose names were proposed in the bid	No deviation
3.	Delay in any of the project milestones	Measured as the difference between the planned date for the milestone and the actual date of its completion	≥7 days <u><7 days</u>
4.	Delay in overall Go-Live date	Measured as the difference between the planned date for the Go-Live and the actual date of Go-Live	< 10 Days



Sl. No.	Position	Minimum Qualifications
		<p>setups.</p> <ul style="list-style-type: none"> Should have experience of at least 3 years working in a managerial role in the maintenance phase of at least one IT setup.
17	Security Architect	<ul style="list-style-type: none"> Education: Computer Science/ IT or equivalent stream Engineering graduate. Total experience: Should have an overall experience of 5 years or above in the field of Information Technology. Should have experience of at least 3 years in designing and maintaining security systems in large projects. Should have OEM/ Industry Standard certification
18	Quality Analyst	<ul style="list-style-type: none"> Education: Should have minimum educational qualification of BE/ B.Tech (in Computer Science/IT) or equivalent Total Experience: Should have an overall experience of 5 years or above in software testing and quality assurance processes At least 4 years of experience exclusively in lead roles for software quality assurance projects while leading a team of 4 members or above Should be certified in Industry standard certifications
19	Capacity Building Knowledge Transfer & Training to client officials	<ul style="list-style-type: none"> Education: Should have a minimum educational qualification of Masters in a relevant discipline. Should have an overall experience of more than 5 years or above in conducting Organization Training Excellent communication skills with fluency in Hindi and English. Experienced in designing and preparing training content and material
20	Help Support Desk	<ul style="list-style-type: none"> Strong Computer Skills and the Ability to Troubleshoot and Diagnose Problems, Familiarity with both PC Hardware and Software, Experience with Network Analysis & Cloud Based Solutions and Good Customer Service Skills Should be a Graduate with at least 3 years of relevant experience.
21	<u>Project Manager Infrastructure & Management</u>	<ul style="list-style-type: none"> <u>Graduate in Computer Science/Information Technology/Electronics Engg with 5+ years' experience with 3+ years experience in network management.</u>



Tender No. KNPAGBIM01: Supply, Installation & Support of Digital Project Management System using Building Information Modelling (BIM) Technology

Sl. No.	FUNCTIONAL REQUIREMENTS - MODELING, ANALYSIS, DESIGN, 4D-5D BIM AND VISUALIZATION SOLUTION	Standard	Workaround	Customization	3rd party	Not possible
213	Ability to create Network Diagram/ View					
214	Ability to create Line of Balance (LOB)/ Flowline scheduling <u>or any industry standard Critical Path Method for scheduling</u>					
215	Ability to In-built CPM package having location-based scheduling.					
216	Ability to Line of Balance (LOB)/ Flowline <u>or any industry standard Critical Path Method for</u> seamlessly linking of Gantt Chart & Network view for visual schedule optimization.					
217	Ability to In-built CPM package having location-based scheduling feature, with its own data base, providing full advantage of 3D BIM model for time control purposes.					
218	Ability to work out costing at the 'nth' level of detail.					
219	Ability to define the presentation of the 4D simulation.					
220	Ability to create Resource histogram view					
221	Ability to create Cash flow view					
222	Ability to create Milestones					
223	Ability to create Resource Registry					
224	Ability to create Risk levels					
225	Ability to create schedule task lists					
226	Ability to create potential problem analysis					
227	Ability to create risk simulation					
228	Ability to create criticality sheet					
229	Ability to create simulated cost distribution					



- d. Perform construction simulation and collaborate between office, site, and field to gain insight into project planning and execution for faster resolution of issues found in the field during construction
- e. To improve the safety and speed of inspections and maintenance with the ability to see asset information within the context of 3D models during operations

Thus the integrated master 3D model will be utilized for reviews at various phases of the project right from design to operations. Especially during the design phase markups needs to be created and directed to the originator for revisions (if any). These markups needs to be in neutral formats such as pdf's. Also these review solutions should be able to create intelligent 3D pdf's or any other open Format that can be used for review in absence of the originator software. At the same time one can query in to get the intelligent attributes attached to the 3D model. Also walkthrough, flythrough can be created to review the model in detail.

This solution needs to tightly integrate with the engineering collaboration system in order to use their workflow and processes set. The solution needs to cater to the 4D (time) and 5D (cost) aspect of the BIM thus offering a complete review solution.

2.2.2.3 Engineering Information Collaboration

- a. The engineering collaboration system will connect people and information across distributed teams and will be used by design consultants to manage, find, and share engineering information such as 2D drawings, 3D CAD models, designs, office documents, pdfs etc., geospatial content and project data. Such a system is designed to connect distributed enterprises and related systems through a single federated interface and enables teams to distribute the files and content they work on and federate that data using a single tool making all files appear to be both central to the team and local to the user.
- b. The engineering collaboration system ensures information mobility with integrity for AECO (Architect, Engineer, Construction Company, & Owner) information used in the design and construction of infrastructure projects while the work is in progress. It needs to be scalable, industry-proven, interoperable and should be able to provide AECO work-sharing, content reuse, and dynamic feedback capabilities that are so essential to leveraging information modeling through integrated projects for high-performing, intelligent infrastructure.

2.2.2.4 Work Sharing: Create and Manage Ongoing Work Efficiently

- a. With such a system, everyone can collaborate on projects, which is how interdisciplinary project teams must work to meet the challenges of sustaining infrastructure. Distributed team members can use their own applications and file formats at their own locations. And through the collaboration systems, find, share, and interact with appropriately managed, interrelated engineering content using their preferred workflows.
- b. The system should facilitate smart work sharing so that the team working on the project realizes higher productivity, increased project performance, and improved project quality that results from the ability to automate the management of complex relationships among documents and countless components within them; share large work-in-progress datasets across offices in real



Timelines and schedule of implementation

4.1 Project Timeline

The project delivery timelines are to be cast by the Bidder/Agency keeping in mind that the project has been cast in an aggressive schedule and needs a sense of urgency and resource allocation to ensure that the project is delivered in time within budgets. Technology will play an important role in the execution of the overall UPMRC project and thus it is critical that the Bidder/Agency work on tight schedules with the best resources possible to deploy. Some of the key milestones are given below. The time below is indicative; the Bidder/Agency may improve upon them to deliver the project earlier if possible.

Activity	Deliverables	Time (in weeks)
Detailed Project plan and project kick off	Detailed Project plan including resources deployment plan Status reporting and communication strategy	T+3
	Deployment of key personnel	T+5
Owner Support Office		
	Formation of OSO and associated processes measurements, dashboards, practices and governance	TBD
Core 5D BIM system	Business Requirement Document – 5D BIM	T+12
	High Level Design, low level design document and System Architecture document (in compliance with Annexure A Section -3 of TOR of the RFP)	T+15
	Deployment Architecture Document	T+15
	User Acceptance Test cases	T+15
	Development of core services	T+20
	Migration of data of existing data	T+22
	UAT of core Modules including integration Testing	T+22
	Closure on observations of stakeholders on Core Modules	T+24
Infrastructure Readiness		
Procurement of Hardware	Order Placement with OEMs(Copy to UPMRC)	T+8
	Hardware delivery and receipt at site(s)	T+12
	Acceptance of hardware as per acceptance criteria defined in the RFP	T+14
Procurement of System software & COTS licenses	Order placement with OEMs (Copy to UPMRC)	T+14
	License availability (link/CD) Acceptance	T+16



time, instantly seeing the impact of design changes made by others; automatically enforce document standards across distributed teams; control document access; and make it easy to search at file and component level.

- c. The collaboration system needs to provide powerful work-sharing capabilities such as spatial view for map-based navigation, web view for online browser access, permissions view for access control management, dependency view for understanding and managing complex file relationships, component view to search for information across file types, and 2D and 3D views without needing the authoring applications. These will empower team members to interact with project information in views that directly relate to their specific task requirements

2.2.2.5 Content Reuse: Keep Project Stakeholders Informed

- a. Collaboration system will keep project stakeholders informed by creating consistent, timely, high-impact deliverables in a predictable manner. Designers can publish project information according to a predefined schedule or on demand – and always in accordance with user-defined standards. Precise, data-rich, native engineering content needs to be published that are appropriate for different audiences, such as electronic files, drawings, renderings, 3D PDFs, and 3D prints. Digital files to devices such as plotters, tablets, iPads, and the Web can also be published.
- b. With flexible publishing capabilities, one can benefit from improved project quality, faster design approvals, and broader project awareness. Project teams can:
 - Transform digital designs into high-quality, precise deliverables.
 - Securely publish engineering content.
 - Package and publish 2D drawings and 3D models in universally viewable portable formats.
 - Improve communication with stakeholders through photorealistic visualizations (including images and movies)

2.2.2.6 Dynamic Feedback: Synchronize with the Source to Resolve Issues

- a. The collaboration system should support a dynamic, closed-loop review process that captures feedback from reviewers – irrespective of their locations – and returns it in context to all relevant designers in a way that's instantly actionable. Comments and feedback on designs can be captured from anywhere – on a PC, iPad, or paper while at a construction site, online or offline. Electronic markups need to be captured and synchronized through the design review solution or Acrobat™ files. Reviewers can open these files using any computer or iPad – without the need for costly, proprietary design software – and comment on 2D and 3D ~~i-models~~ models and PDFs. When markups are returned to the collaboration system, they need to automatically synchronize with the correct design files and team members, and include an audit trail of all comments and changes.
- b. Since a hard copy is sometimes the best medium for sharing designs with stakeholders, document scan can be marked up with special digital plan and then placed in docking station to instantly

