

MUMBAI METRO RAIL CORPORATION LIMITED

REQUEST FOR PROPOSAL (RFP)

FOR THE WORK

Appointment of Technical Consultant for providing
Comprehensive Architectural, Structural, MEP Designing
and Liasoning for Development of staff quarters for
MMRC at Dharavi

RFPMMRCL/Planning/PLN55B/DHARAVI/RFP/01/2021 NOVEMBER 2021

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1. GENERAL SECTION

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1.1 BACKGROUND

1.1.1 Mumbai Metro Rail Corporation Limited (MMRCL) seeks the services of Technical Consultants for preparation of Architectural Designing, Structural, MEP designing and obtaining necessary approvals for Development of staff quarters for MMRC at Dharavi. It includes preparation of plans for staff quarters, providing Architectural and Technical Services for planning, designing, structural designing, obtaining necessary approvals, supervising during construction etc. for the work briefed as below:

'Appointment of Technical Consultant for providing Comprehensive Architectural, Structural, MEP Designing and Liasoning for Development of staff quarters for MMRC at Dharavi Metro Station'

1.1.2 The plots at cs.no. 343, 1/345, 1/346 are required for the construction of Dharavi Metro Station Entry/Exits, Ancillary building and Receiving Sub Station (RSS). Metro Line 3 is passing below road adjoining the plots. The total plot area under the possession of MMRC is 4805 sq.mt., the breakup of which is as follows:

Sr.	CTS	Area
No.		
1	343	3,308 sq.mt.
2	1/345	360 sq.mt.
3	1/346	1,137 sq.mt.
	TOTAL	4,805 sq.mt.

- 1.1.3 After accommodating the aforementioned Metro structures on above plots, land admeasuring 1155 sq.m. is vacant and available for construction. It is intended to utilize development potential of above three plots on this vacant land to develop staff quarters for MMRC. The proposed construction should consist the planning for circulation space to the adjoining metro structures and staff quarters. The total BUA of appx. 8380sq.m. is envisaged for the proposed staff quarters on a buildable area of appx. 420 sq.mt. Refer **Appendix A & B** for site Layout and more details on area statement for the proposed development.
- 1.1.4 Height restriction of approx. 76m is observed from the NOCAS, Civil Aviation website with a site elevation of approx. 5m.
- 1.1.5 The aforementioned plots mentioned are under different Special Planning Authorities (SPAs).
 The Appointed Consultant should assist MMRC in optimum utilization of the plots for construction of the staff quarters.

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1.2 OBJECTIVES

- 1.2.1 To plan for harmonious and complementary co-existence of the proposed staff quarters along with the proposed metro stations
- 1.2.2 Bringing in new and innovative concepts in development, construction, energy saving/consumption, waste management and water management, etc.
- 1.2.3 Construction of state of the art and aesthetically pleasing architectural design
- 1.2.4 Employing leading edge technologies and design innovative services and solutions
- 1.2.5 Adequate and coherent development based on life-cycle cost minimization approach
- 1.2.6 Architectural planning of proposed building considering the Universal Design principles and inclusivity
- 1.2.7 Assist in planning to achieve the goal of maximization of plots potential and financial feasibility
- 1.2.8 Planning (including design and drawings), co-ordination and implementation of the project components so as to ensure completion of the project within budget and on time

1.3 SCOPE OF ASSIGNMENT

- 1.3.1 To prepare layouts, architectural building plans, working drawings and all required drawings in BIM
- 1.3.2 To prepare Structural designs, necessary MEP drawings, estimation, BOQ preparation and bid documents etc.
- 1.3.3 To co-ordinate with MMRC's various teams, General Consultant (GC), Metro site contractors,

 Design team and other appointed consultants
- 1.3.4 To advice MMRC on applicability of Development Control Regulations and other policies/directives of State Government, MCGM/DRP etc as applicable for the proposed development
- 1.3.5 Preparing municipal plans/ drawings for approvals of Competent Authorities eg. MCGM, DRP, SRA etc
- 1.3.6 To obtain necessary and regulatory approvals and remarks from Competent Authorities eg. MCGM, DRP, AAI etc. including RL Remarks, Traffic Department remarks, IOD, CC, OC, CFO NOC, SWM NOC, HE NOC as required
- 1.3.7 To obtain environmental clearances for the requisite project (if necessary), civil aviation clearance etc.
- 1.3.8 To assist MMRC in inviting bids for the appointment of Project Management Consultants and Contractor(s), preparation of tender and bid documents
- 1.3.9 To appraise MMRC on applicability of rapid construction technology and making necessary provisions to deploy the same if approved

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- 1.3.10 To act as representative, supervise and monitor the construction of the proposed buildings with a view to ensure quality of work and timely completion
- 1.3.11 To carry out investigations and surveys, necessary geotechnical investigation
- 1.3.12 To prepare final layout, designing, selection of specification, construction methodology and working drawings, schedule of drawings, GFC Drawings and verify 'As-built' drawings prepared by contractor etc.
- 1.3.13 To prepare/ get done RCC design/or any approved design methodology and get it certified from consulting Institutions. Proof checking will be done by General Consultant for Mumbai Metro Line-3 i.e. MAPLE, and same will be put up for approval of MMRCL.
- 1.3.14 To prepare 3D visualizations, walkthroughs, physical models for various presentation purposes from time to time for appraisals to various authorities
- 1.3.15 To conduct workshops/ meeting with various stakeholders
- 1.3.16 To report and make periodic presentations to MMRC on fortnightly basis till designs are finalized

More details on the Scope of Assignment is mentioned in the Terms of Reference (ToR).

1.4 DURATION OF CONTRACT

- 1.4.1 Period of contract 12 months which includes 9 months of consecutive consultancy services (pre-construction activities) and 3 months of intermittent services (during construction and post construction activities) eg. Monthly site visits during construction phase, verification of 'As-built' drawings, obtaining OC and stagewise approvals etc. during construction phase) from the date of work order.
- 1.4.2 The construction period for the project is envisaged at 24 months and the 3 months intermittent services would be required intermittently during the construction period.

1.5 DETAILS OF RFP:

S. No	Name of Work	Tender Processing Fee	Contract Period
		(Excluding GST of 18%)	
1	2	3	4
1.	'Appointment of Technical Consultant	Rs. 10,000/-	12 Months
	for providing Comprehensive	(Rupees Ten Thousand Only)	(including 3 months of
	Architectural, Structural, MEP Designing	(Non-Refundable)	intermittent
	and Liasoning for Development of staff		services)
	quarters for MMRC at Dharavi'		

For the agencies that have registered as MSMEs are requested to make the necessary payment of Rs. 10,000/-+GST on the portal. The amount will be reimbursed separately after submission of the proof of the payment.

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RFP Document can be downloaded for reference purpose from the e-Tendering Portal of MMRC during the period of tender notice.

1.6 TENDER SCHEDULE:

Sr.	Tender Schedule	Bidder Schedule	Start Date & Time	End Date &
No.				Time
1.	RFP Authorization		26/11/2021	12/01/2021
	and Publishing		10:00 hrs	18:00 hrs
2.		RFP Document Download	26/11/2021	12/01/2021
			12:00 hrs	18:00 hrs
3.		Bid Preparation and	26/11/2021	12/01/2021
		Submission	10:00 hrs	18:00 hrs
4.	Pre-Bid meeting		06/12/2021	06/12/2021
			11:30 hrs	13:00 hrs
5.	RFP Closing		12/01/2022	12/01/2022
			18:01 hrs	18:01 hrs
6.	Opening Envelope,		13/01/2022	13/01/2022
	A – Technical Bid		16:00 hrs	17:00 hrs
7.		Presentation from the bidders	18/01/2022	18/01/2022
		on Project understanding,	11:00 hrs	18:00 hrs
		Technical Approach and		
		Methodology, Work plan,		
		Organization and staffing and		
		previous experiences		
		(Expected)		
8	Opening Envelope		04/03/2022	04/03/2022
	B – Financial Bid		11:00 hrs	12:00 hrs
	(Expected)			

• Pre-bid queries must reach MMRC before 08/12/2021 in writing. Any queries received after the stipulated date shall not be entertained.

NOTE: Pre-Bid Meeting is proposed to be held on <u>06/12/2021</u> at 11:00 hrs in MMRCL, Conference Room, 801-803, 8th Floor, Hallmark Business Plaza, Sant Dnyaneshwar Nagar, Opposite Guru Nanak hospital, Kalanagar, Bandra (E), Mumbai- 51

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2. QCBS DATA SHEET SECTION

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2.1 <u>INTRODUCTION</u>

- 2.1.1 MMRC policy requires that consultants provide professional, objective, and Impartial advice and always hold the Client's interest paramount, without any consideration for future work, and strictly avoid conflicts with other assignments or their own corporate interests. Consultants shall not be hired for any assignment that would be in conflict with their prior or current obligations.
- **2.1.2** MMRC will reject a proposal for award if it determines that the firm recommended for award has engaged in corrupt or fraudulent activities in competing for the contract in question.

2.2 CLARIFICATION AND AMENDMENT

2.2.1 Consultants may request a clarification of any clauses in this document, any request for clarification must be sent in writing by paper mail, facsimile, or electronic mail to the Client's address. The Client will respond by facsimile, or electronic mail to such requests.

2.3 DATA SHEET

The data sheet for the RFP is as follows

S. No.	Particulars
2.3.1	Name of Employer: Mumbai Metro Rail Corporation Limited
2.3.2	Name of Assignment: 'Appointment of Technical Consultant for providing Comprehensive Architectural, Structural, MEP Designing and Liasoning for Development of staff quarters for MMRC at Dharavi'
2.3.3	A pre-bid meeting will be held at 06/12/2021 at 11:30 hrs at MMRCL, Conference Room, 801-803, 8th Floor, Hallmark Business Plaza, Sant Dnyaneshwar Nagar, Opposite Guru Nanak hospital, Kalanagar, Bandra (E), Mumbai- 51 Telephone: (+91 22) 2656 1355 E-Mail: swetal.kanwalu@mmrcl.com
2.3.4	The Client will provide the inputs specified in the Data Sheet and make available relevant project data and reports. Please refer to Appendix A & B for the available data.
2.3.5	Proposal shall be submitted in English Language only.
2.3.6	Proposals must remain valid for 120 days after the submission deadline date.
2.3.7	JV/ Consortium of not more than 2 individual firms shall be allowed and one of the members should be lead Partner. Each of the members of Consortium/JV should be a professional Firm/Company/LLP having a minimum of five years of continuous existence. In case of JV/ consortium, all the members should meet at least 50% turnover criteria as laid down in clause 2.3.9.c. The Lead Partner should fully meet the eligibility criteria as laid down in clause 2.4.A. Minor partner should at least meet the following:

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	750/ 64 DYA 2 124 1272 2 134 1 27			
	a. 75% of the BUA as mentioned in the eligibility criteria laid down in 2.4.A.d			
	b. 100% of building height as laid down in Clause 2.4.A.e			
	0. 100% of building neight as faid down in Clause 2.4.A.e			
	As a JV/ consortium, the collective eligibility to be met is as follows:			
	a. 100% of the experience in BIM based project designing and execution as laid			
	down in Clause 2.4.A.f			
	b. 2.4.B shall be met jointly by both members of JV/ Consortium.			
	Both the members shall be jointly responsible to the provisions of the agreement.			
	A firm shall submit only one proposal, either individually or as a JV/ Consortium partner			
2.3.8.	in another proposal. If a firm, including a JV/ Consortium partner, submits or participates			
	in more than one proposal, all such proposals shall be disqualified.			
	a) Replacements of Key Personnel is not desirable and consultants shall refrain from			
	doing so in any circumstances except death and medical incapacitation. If Key Personnel			
	or replacements of equal or better qualifications are not deployed, it will be considered as			
	non-deployment of key personnel and no payment shall be admissible.			
	b) The consultant shall not change the Key Personnel proposed for the work without any			
	valid reasons acceptable to the Client. A penalty of Rs. 25,000/- will also be levied if the consultant changes the Key Personnel proposed without valid reasons or without prior			
2.3.9	information to the client.			
	c) For the single bidder or JV/ consortium of firms, combined annual average turnover for the last 3 years (FY 2018-19, 19-20, 20-21) should not be less than Rs. 80			
	lacs (For consultancy services of Architectural Consultancy/ Structural Designing/ MEP			
	Works/ Liasoning works only).			
	MSME registration is desirable for the bidding entity.			
2.3.10	All the payments shall be made only in Indian National Rupees (INR).			
2.3.11	The Consultant/JV/ Consortium should not be associated with MMRC or in contract			
2.0.11				
2.3.12	with MMRC for other consultancy services during the tenure of issuing of this tender			
	Time and date of the Proposal submission deadline:			
I	Time and date of the Proposal submission deadline: Time: 18:00 hrs & Date: 12/01/2021			
2.3.13	Time and date of the Proposal submission deadline: Time: 18:00 hrs & Date: 12/01/2021 Following Self-Certified Documentary Evidence to be submitted in support of			
2.3.13	Time and date of the Proposal submission deadline: Time: 18:00 hrs & Date: 12/01/2021 Following Self-Certified Documentary Evidence to be submitted in support of Eligibility with Technical Proposal			
2.3.13	Time and date of the Proposal submission deadline: Time: 18:00 hrs & Date: 12/01/2021 Following Self-Certified Documentary Evidence to be submitted in support of Eligibility with Technical Proposal i. Copy of Contract/work orders indicating the details of previous assignment,			
2.3.13	Time and date of the Proposal submission deadline: Time: 18:00 hrs & Date: 12/01/2021 Following Self-Certified Documentary Evidence to be submitted in support of Eligibility with Technical Proposal i. Copy of Contract/work orders indicating the details of previous assignment, client etc. The Competent authority of the Consulting firm shall self-certify if			
2.3.13	Time and date of the Proposal submission deadline: Time: 18:00 hrs & Date: 12/01/2021 Following Self-Certified Documentary Evidence to be submitted in support of Eligibility with Technical Proposal i. Copy of Contract/work orders indicating the details of previous assignment, client etc. The Competent authority of the Consulting firm shall self-certify if the firm has done assignments on non-disclosure agreements. In such cases,			
2.3.13	Time and date of the Proposal submission deadline: Time: 18:00 hrs & Date: 12/01/2021 Following Self-Certified Documentary Evidence to be submitted in support of Eligibility with Technical Proposal i. Copy of Contract/work orders indicating the details of previous assignment, client etc. The Competent authority of the Consulting firm shall self-certify if the firm has done assignments on non-disclosure agreements. In such cases, broad details of the assignment must be provided to ascertain relevance			
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2.3.13	Time and date of the Proposal submission deadline: Time: 18:00 hrs & Date: 12/01/2021 Following Self-Certified Documentary Evidence to be submitted in support of Eligibility with Technical Proposal i. Copy of Contract/work orders indicating the details of previous assignment, client etc. The Competent authority of the Consulting firm shall self-certify if the firm has done assignments on non-disclosure agreements. In such cases, broad details of the assignment must be provided to ascertain relevance (Annexure II & Annexure III). The completion certificates of the previous completed assignments should also be provided.			
2.3.13	Time and date of the Proposal submission deadline: Time: 18:00 hrs & Date: 12/01/2021 Following Self-Certified Documentary Evidence to be submitted in support of Eligibility with Technical Proposal i. Copy of Contract/work orders indicating the details of previous assignment, client etc. The Competent authority of the Consulting firm shall self-certify if the firm has done assignments on non-disclosure agreements. In such cases, broad details of the assignment must be provided to ascertain relevance (Annexure II & Annexure III). The completion certificates of the previous completed assignments should also be provided. ii. CVs of key personnel (clearly stating tenure of the key personnel working with			
2.3.13	Time and date of the Proposal submission deadline: Time: 18:00 hrs & Date: 12/01/2021 Following Self-Certified Documentary Evidence to be submitted in support of Eligibility with Technical Proposal i. Copy of Contract/work orders indicating the details of previous assignment, client etc. The Competent authority of the Consulting firm shall self-certify if the firm has done assignments on non-disclosure agreements. In such cases, broad details of the assignment must be provided to ascertain relevance (Annexure II & Annexure III). The completion certificates of the previous completed assignments should also be provided.			

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	iii. An undertaking stating that firm/organization is not blacklisted by Government			
	or its agencies including Central/State Level Public Enterprises.			
	iv. A Certificate regarding non-disclosure/sharing of confidential information with			
	third parties.			
	v. Annual Turnover Certificates & audited balance sheet for last 3 financial year			
	(, Yr. 2018-19, Yr. 2019-20, Yr. 2020-21) (as per Annexure VI)			
	vi. Certificate of incorporation, PAN Number & GSTIN details.			
	vii. Covering letter declaring the offer to be unconditional, confirming its validity			
	for 120 days and a list of all the documents submitting along with the Bid.			
2.3.14	The firm should provide litigation history along with the technical proposal, (Annexure			
	VII)			
2.3.15	Copy of valid Partnership deep / JV/ Consortium /MoU should be attached along with			
2.3.13	the technical proposal.			
2.3.16	Authority letter clearly mentioning details of authorized representative of the Consultant			
2.5.10	to execute the contract formalities should be attached along with technical proposal.			
	Expected date (month/year) for public opening of Financial Proposals: 04/03/2022 at:			
2.3.17	MMRCL, Conference Room, 801-803, 8th Floor, Hallmark Business Plaza, Sant			
2.3.17	Dnyaneshwar Nagar, Opposite Guru Nanak hospital, Kalanagar, Bandra (E), Mumbai-			
	51			
2.3.18	Pre-bid meeting to be held on 06/12/2021 at 11:30 hrs			
2.3.19	Quality cost Ratio: 80:20 (Technical Eligibility: Financial Eligibility)			
	Expected date and address for contract negotiations:			
	Date: 10 days after opening of Financial proposal			
2.3.20	Address: MMRCL, Conference Room, 801-803, 8th Floor, Hallmark Business Plaza,			
	Sant Dnyaneshwar Nagar, Opposite Guru Nanak hospital, Kalanagar, Bandra (E),			
	Mumbai- 51			
2.3.21	Expected month for commencement of services: April 2022			
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2.4 <u>CRITERIA & POINT SYSTEM FOR QUALITY & COST BASED SYSTEM:</u>

A.	Consultancy Eligibility and Competency Criteria			
S. No.	Criteria			
1.	 Eligibility and requisite Experience of the Consultants relevant to the assignment: a. The Consultant should have overall experience of minimum 10 years in providing Architectural, Structural, MEP and Liasoning works. (Mandatory) b. Experience of Comprehensive Architectural Consultancy, Structural and MEP designing and Liasoning for more than 2 completed projects of comparable size, complexity, and technical specialty. (Minimum 6,700 Sq.m. Built up area (BUA)) in the last 5 financial years (Max 8 points) c. 2 completed projects with minimum building height of 56mt. or more in the last 5 financial years (Max 8 points) d. Experience in BIM based project designing and execution of at least 1 completed project in the last 5 financial years (Max 4 points) 			
	Marking for the above is as per following for BUA and (BUA and Height): 2 no. of qualifying projects: 3-4 nos. of qualifying projects: 5 or more nos. of qualifying projects: 100% of max points Marking for the above is as per following for experience in BIM: 1 no. of qualifying project: 70% of max points 2 nos. of qualifying projects: 85% of max points 3 or more nos. of qualifying projects: 100% of max points 100% of max points			
2.	Adequacy of the proposed methodology and work plan in responding to the Terms of Reference: i) Technical approach and methodology (Max 5 Points) ii) Work plan (Max 7 Points) iii) Organization and staffing (Max 7 Points) iv) Presentation skills (Max 1 Point) The bidders will have to submit the proposed methodology and workplan in the Technical Proposal and subsequently will be asked to make requisite presentation for the same. The expected date of presentation is 18/01/2022 from 11:00 hrs to 18:00 hrs at MMRCL, Conference Room, 801-803, 8th Floor, Hallmark Business Plaza, Sant Dnyaneshwar Nagar, Opposite Guru Nanak Hospital, Kalanagar, Bandra (E), Mumbai-51	20		
	Telephone: (+91 22) 2656 1355. All the bidders will be given 30mins time slot to present including the time for interaction with the Technical Appraisal Committee. Total Points for Criteria- A	40		

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В.	B. Key Personnel Qualification and Competency					
S. No.	Personnel	Qualification	Experience	Points		
1	Principal Architect	 Graduate in Architecture/ Graduate Diploma in Architecture Valid Council of Architecture Certificate 	 Appx. 15 Years overall experience, Appx. 7 Years or more in similar capacity, Age Limit -55 Years Experience in buildings with 70m or more height is desirable. 	20		
2	Project Co- ordinator/ Team Leader	 Graduate in Civil Engineering /Architecture Post-graduation/ Post Graduate Diploma in Construction Management and Planning is desirable Duly licensed by Competent Authority 	 Appx. 10 Years overall experience, Appx. 05 Years or more in similar capacity Experience in buildings with 70m or more height is desirable. 	10		
3	Structural Engineer	Graduate in Civil Engineering/ Post-Graduate in Structural Engineering	 Appx. 15 Years or more in structural design and analysis. Experience in buildings with 70m or more height is desirable. 	15		
4	MEP Engineer	Graduate in Electrical or Mechanical Engineering	Appx. 10 Years or more in High Rise building projects	5		
5	Laisoning Architect	Graduate in Architecture	Appx. 15 Years or more of Experience	5		
6	BIM Manager	Graduate in Architecture/ Civil or any engineering stream with desired BIM experience	Appx. 5 years or more of experience	5		
Total points for Criteria- B						

The weightage of marking for the aforementioned key personnel's is as follows:

- a. Educational qualifications 20% weightage
- b. Professional experience in the required area of assignment 80% weightage

2.4.1 Evaluation of proposal: Technical and Commercial scores:

Technical Score (X):

Only those Bidders who have secured Technical Score(X) of 70 or above shall be declared as qualified for evaluation of their 'Financial Bid'. Bidders who have secured less than 70 for Technical Score shall be rejected.

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Financial Score: (Y)

The Financial proposals shall be evaluated on the basis of total lump sum charges offered by the bidder. Any monetary figure in decimal shall be rounded off to the nearest INR. For any other calculation/summation error etc. the bid may be rejected.

The financial scores of other bidders for the project shall be computed as follows:

[The 'financial score' of Bidder for	= 100 x	[Lowest offer quoted by the qualified bidder Rs.]
the project(Y)]		[Offer quoted by the respective Bidder (Rs.)]

The marks secured as above shall be the Financial Score of the bidder for the project (Y).

Composite score of the Bidders for the bid shall be worked out as under:

Bidder	Technical Score (X)	Financial Score (Y)	Weighted Technical Score (80% of X)	Weighted Financial Score (20% of Y)	Composite Score (F=D+E)
A	В	С	D	Е	F

The bidder with highest composite score will be qualified as L1 etc.

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3. TECHNICAL PROPOSAL STANDARD FORMS SECTION

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Technical approach, methodology and work plan are key components of the Technical Proposal. Consultants are suggested to present their Technical Proposal divided into the following three chapters:

- a) Technical Approach and Methodology,
- b) Work Plan, and
- c) Organization and Staffing

3.1 TECHNICAL APPROACH AND METHODOLOGY:

Consultant should explain their understanding of the objectives of the Assignment/job, approach to the Assignment/job, methodology for carrying out the activities and obtaining the expected output, and the degree of detail of such output. Consultant should highlight the problems being addressed and their importance and explain the technical approach to address them. Consultant should also explain the methodologies they propose to adopt and highlight the compatibility of those methodologies with the planned approach.

3.2 WORK PLAN:

The consultant should propose and justify the main activities of the Assignment/job, their content and duration, phasing and interrelations, milestones (including interim approvals by the MMRCL), and delivery dates of the reports. The proposed work plan should be consistent with the technical approach and methodology showing understanding and ability to translate them into a feasible working plan. A list of the final documents, including reports and tables to be delivered as final output, should be included here. The consultant should also explain their understanding of the site, the challenges it possessed and the proposed solutions.

3.3 ORGANIZATION AND STAFFING:

The consultant should propose and justify the structure and composition of their team. The consultant should also provide a brief on the organization, its history since inception, project experience. Consultant should list the main disciplines of the Assignment/job, the key expert responsible, and proposed technical and support staff. The consultant should also explain the staffing timelines based on the workplan prepared.

Team Composition and Task Assignments- CVs of the Professional staff as mentioned below signed by the staff themselves or by the authorized representative of the Professional Staff (Annexure V), to be submitted along with the technical proposal.

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3.4 KEY TECHNICAL / MANAGERIAL STAFF

Sr. No.	Minimum No. Required	Position	Task
1	1	Principal Architect	Architectural / designs drawings
2	1	Project Coordinator/ Team Leader	Overall project Co-ordination
3	1	Structural Engineer	Structural Designs & Drawings
4	1	MEP Engineer	All MEP related planning, coordination, supervision
5	1	Laisoning Architect	All Laisoning and Approvals related works
6	1	BIM Manager	All BIM Related works

3.5 SUPERVISORY AND SUPPORT STAFF

Sr. No.	Position	Task
1	Quantity Surveyor	Estimation and BOQ preparation
2	Structural Engineer	Structural Design
3	Civil Engineers (2 Nos.)	For estimation, supervision, sanitary, plumbing etc.
4	Architects (2 Nos.)	Designs, BIM, GFC, working drawings etc.
5	Interior Designer (1 Nos.)	Interior Designs for common spaces, kitchen, bathrooms, etc.
6	MEP Engineer (1 Nos)	MEP design preparations, estimation, supervision etc.
7	Draughtsman (2 Nos)	For all drafting of Architectural, working, municipal drawings etc.

3.6 OTHER SUPPORT STAFF

Sr. No.	Position	Task
1	Other supporting staff- Steno- typist (2 Nos), Typist, Driver	Clerical works

Note: Annexure IV to be attached with Technical Proposal.

Tentatively 57-Manmonths for Key personnel and 109-Manmonths for Supervisory and support staff shall be deployed during execution of this contract.

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4. FINANCIAL PROPOSAL STANDARD FORMS SECTION

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4.1 FINANCIAL PROPOSAL SUBMISSION FORM

FROM:				
	M/s.	Architectural	and	Consultancy
	servi	ces		

To,

The Executive Director (Planning), Mumbai Metro Rail Corporation NaMTTRI Bldg., Plot No. R-13, E Block, Bandra Kurla Complex, Bandra (E), Mumbai – 400 051.

> SUB: Appointment of Technical Consultant for providing Comprehensive Architectural, Structural, MEP Designing and Liasoning for Development of staff quarters for MMRC at Dharavi

Dear Sir/ Madam,

We, the undersigned, offer to provide the services for the above subject work in accordance with Tender provisions at and our financial offer and fees inclusive of all taxes and (applicable rate of **GST**) for this work shall be as follows:

S. No	Name of Work	Time limit for Consultancy	Lumpsum Fees (Rs)
1	Architectural, Structural Design, obtaining all approvals from Competent Authorities including OC	12 Months (Including 3 months of intermittent services)	
		GST (@%)	
TOTAL		In figures:	

(Consultant to mention the applicable GST %)

(Total fees will include services such as Preparation of all architectural design, plans, estimates, draft tender papers, RCC designs, supervision and allied services including RCC, Electrical and plumbing, firefighting, obtaining all regulatory approvals and preparation of drawings for approvals from Competent Authority and all other similar activities for the subjected work. Our Financial proposal shall be binding upon us.)

(Details of the above fee to be furnished as per Annexure-I)

We remain.

Yours sincerely,

M/s. Architectural and Consultancy services

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4.2 SCHEDULE OF PAYMENT

Sr. No	Action	% Fees	Cumulative Time limit from Appointment days
1	On appointment order	5%	15
2	On submission of inception Report	10%	30
3	On submission of Architectural plans & approval from MMRC	10%	60
4	On obtaining necessary approvals from Competent Authorities	15%	120
5	On submission of Final RCC Designs, MEP drawings, working drawings, Good for Construction (GFC) and any other related designs and drawings etc.	15%	160
6	On submission of draft bid document, bills of quantities (BOQ) along with specifications and drawings etc. and invitation of bids for appointment of PMC and Contractor(s)]	15%	180
7	On Receipt of bid Evaluation and award of work	10%	270
8	Obtaining construction stagewise approvals during construction and verification of Shop Drawings, monthly site visits and site report preparation, PMC schedule vetting, financial scheduling review, verification of 'as built' drawings	15%	960
9	Submission of Completion Report and obtaining OC	5%	990

4.2.1 Architectural Consultant payment is as per the milestones in the schedule of payment.

4.2 Inefficiency of Consultant

In case of inefficiency from the consultant's side, 3 warnings shall be issued to the consultant. Thereafter, the consultant may be terminated.

4.3 Efficiency of Consultant

The Consultant would also be eligible for incentive capped at 2% of quoted fees in case of obtaining IOD (Intimation for Disapproval) prior to stipulated 4 months from the date of work-order.

4.4 Non- Deployment of staff

In case of non-deployment of certain key technical/ managerial staff and supervisory & support staff, the deductions will be made on pro-rata basis for the period of non-deployment of the personnel.

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5. TERMS OF REFERENCE SECTION

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5.1 <u>INTRODUCTION</u>

5.1.1 Mumbai Metro Rail Corporation Limited (MMRCL) seeks the services of Technical Consultants for preparation of Architectural Designing, Structural, MEP designing and obtaining necessary approvals for Development of staff quarters for MMRC at Dharavi. It includes preparation of plans for staff quarters, providing Architectural and Technical Services for planning, designing, structural designing, obtaining necessary approvals, supervising during construction, etc. for the work briefed as below:

'Appointment of Technical Consultant for providing Comprehensive Architectural, Structural, MEP Designing and Liasoning for Development of staff quarters for MMRC at Dharavi Metro Station'

5.1.2 The plots at cs.no. 343, 1/345, 1/346 are required for the construction of Dharavi Metro Station Entry/Exits, Ancillary building and Receiving Sub Station. Metro Line 3 is passing below road adjoining the plots. The total plot area under the possession of MMRC is 4805 sq.mt., the breakup of which is as follows:

Sr.	CTS	Area
No.		
1	343	3,308 sq.mt.
2	1/345	360 sq.mt.
3	1/346	1,137 sq.mt.
	TOTAL	4,805 sq.mt.

- 5.1.3 After accommodating the aforementioned Metro structures on above plots, land admeasuring 1155 sq.m. is vacant and available for construction. It is intended to utilize development potential of above three plots on this vacant land to develop staff quarters for MMRC. The proposed construction should consist the planning for circulation space to the adjoining metro structures and staff quarters. The total BUA of appx. 8380sq.m. is envisaged for the proposed staff quarters on a buildable area of appx. 420 sq.mt. Refer **Appendix A & B** for site Layout and more details on area statement for the proposed development.
- 5.1.4 Height restriction of approx. 76m is observed from the NOCAS, Civil Aviation website with a site elevation of approx. 5m.
- 5.1.5 The aforementioned plots mentioned are under different Special Planning Authorities (SPAs).
 The Appointed Consultant should assist MMRC in optimum utilization of the plots for construction of the staff quarters.

5.2 OBJECTIVES

5.2.1 To plan for harmonious and complementary co-existence of the proposed staff quarters along with the proposed metro stations

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- 5.2.2 Constructing the proposed project with environment factors to be given very high priority
- 5.2.3 Bringing in new and innovative concepts in development, construction, energy saving/consumption, waste management and water management, etc.
- 5.2.4 Construction of state of the art and aesthetically pleasing architectural design
- 5.2.5 Employing leading edge technologies and design innovative services and solutions
- 5.2.6 Adequate and coherent development based on life-cycle cost minimization approach
- 5.2.7 Architectural planning of proposed building considering the Universal Design principles and inclusivity
- 5.2.8 Assist in planning to achieve the goal of maximization of plots potential and financial feasibility
- 5.2.9 Planning (including design and drawings), co-ordination and implementation of the project components so as to ensure completion of the project within budget and on time

5.3 CONCISE STATEMENT OF SERVICES EXPECTED:

- 5.3.1 **As Architect:** Prepare architectural plans and prepare detailed designs for all the components of project including civil Structural, Mechanical, Electrical, HVAC, lifts, plumbing, drainage, on-site/ offsite infrastructure, landscaping, parking systems, common spaces and kitchen interiors. Preparation of bills of quantities, tender documents, invitation of bids, scrutiny of tenders, preparation of BIM designs, prepare 3D visualizations, walkthroughs, physical models, information brochure designing etc. All the final drawings should be prepared using requisite BIM software.
- 5.3.2 **As Laisoning Architect:** Prepare drawings/ plans for mandatory building approvals from Competent Authorities such as MCGM/ DRP and obtain regulatory approvals such as environmental clearances, CRZ clearances, Airport Authority Height NOC etc. from Competent Authorities.

5.4 DETAILED SCOPE OF SERVICES OF CONSULTANT

The scope of services pertains to preparation of Concept Plans, Architectural, Structural, Municipal, MEP plans, submissions of the plans to competent authorities and obtaining requisite approvals for the same in co-ordination with the on-going metro works. The detailed scope of services shall be as follows:

5.4.1 SCOPE OF SERVICES AS ARCHITECT:

The outline scope of services to be performed by the Architect shall include but not limited to the following:

i. Site data collection:

The Consultant shall collect relevant details, information, data and reports, proposed plans from Local Bodies/ concerned Departments and from the market regarding present and proposed

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development within the influence area of the said plot, including from other Consultants appointed by MMRCL. These data should include but not be limited to:

- a. Master plans, zonal plans, building bye-laws, development regulations, permitted land use and FSI at the site, rules for obtaining permission for FSI, TDR, etc., circle rates of land for various use in the area, market rates as per past land deals;
- b. Details of similar developments in the vicinity both existing as well as proposed and opportunities for commercial development in the Project;
- c. The plans, drawings, other data available for the area has to be verified by physical verification, topographical survey and available records/reports.
- d. The Consultant shall ascertain and study development plans of various departments/local bodies which have bearing on the proposed sites.

ii. Conducting necessary site related surveys and investigations:

a. Engineering Survey:

The Consultant shall carry out a detailed survey of the site/ total station survey and the surrounding areas to prepare accurate site plans. The development should not be confined to the site but also include infrastructure facilities and adjoining metro station land to present an integrated development around the site. A report shall be prepared on topographic survey indicating base line survey report which shall include GPS benchmark, GTS benchmark, triangulation network points (temporary benchmark), and close traverse survey details along with the photographs of important locations. The site survey should be coordinated with Metro Surveyors, GC and Metro Contractor's Surveyors to avoid any errors. The surveyor should be appointed by the Consultant at no additional cost to MMRC.

b. Geotechnical Survey:

The Consultant shall carry out a reasonable degree of geotechnical investigations in sufficient number (preferably near locations where the foundations are expected) including conducting Laboratory and Field Test along with the analysis of results and preliminary foundation design to determine nature of construction from Agency as approved by MMRCL. The consultant should also co-ordinate with General Consultants for the Geo-technical survey data information for developments to be integrated with underground Metro stations. The surveyor should be appointed by the Consultant at no additional cost to MMRC.

c. Exiting utilities mapping, assess and plan permanent and temporary diversion utilities:

The Consultant shall be responsible for the necessary survey including Radar survey, if needed, and for the accuracy of the physical and ground details, such as alignment of roads, land use

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details, utilities (telephone lines, signal lines/ equipment, HT/LT lines, water supply, drainage/gas lines and OFC cables, etc.), trees and other plantation and access to adjacent properties. The Consultant shall also prepare plan/drawings for suitable re-location of any existing facilities/utility as required by MMRCL.

iii. Identification of Applicable Development Control regulations and norms:

The Consultant shall study the development control norms, building bye-laws and Development Plan of the city, CRZ related compliances and other requirements laid down by local authorities and shall advise MMRCL regarding the nature and extent of construction permitted and its likely impact on the viability of the Project. Provisional relaxations, if any, required in the development control norms of state government or local bodies shall be clearly brought out to the notice of MMRCL at an early stage in order to get the approval of the same from the state government or local bodies. The Consultant shall actively assist MMRCL in preparation of documents, reports, drawings etc. to enable MMRCL to logically argue its case and get the issues satisfactorily resolved. The Consultant shall prepare plans conforming to the extant of building bye-laws with a view to enabling an 'in principle' approval of local authorities.

iv. To develop Concept Plans of the project:

- a. The Consultant shall prepare and present 2-3 alternative concept layout and concepts prior to finalization by the Client confirming to the objectives as mentioned in section 5.2.
- b. The Concept Plans to be prepared by the Consultant should include the drawings and sufficient details to judge the feasibility and constructability of various layouts.
- c. Considering the adjoining metro station works, MMRCL's requirements and overall interests of Project, etc., in case the project is to be undertaken in Phases, the Master Plan shall indicate the phases of construction works.
- d. Consultant shall supplement the proposed layout with explanatory drawings, statements, charts, notes, proposed massing/ volumetric studies etc. and provide preliminary cost estimates. Consultant shall prepare 3D visualizations/ physical models for presentation purposes for appraisal by MMRCL.

v. To prepare Architectural designs and review/ update of design criteria/outline specifications for the Project:

a. The Consultant shall prepare Architectural designs which shall form the basis of establishing rough project costs.

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- b. This shall include further designs of major elements required for preparation of rough cost estimates such as foundation, structural system supporting unique and uncommon architectural elements, parking details, typical parameters of unique and special architectural finishes, parameters of external architectural facades/canopies, etc.
- c. The Architectural Designs should include all the proposed floor plans/ basement plans, requisite sections, elevations, necessary detailed drawings, area statements and necessary calculations for provision of various utilities
- d. The proposed building plans should be designed in order to accommodate the parking requirements as per the prevalent regulations.
- e. These shall be prepared in sets of readable sized drawing sheets containing drawings as well as design parameters.
- f. The objective of these drawings is to enable MMRCL to make a preliminary estimate of the cost of Project works for Administrative/ Boards approval. The Consultant shall work out BOQ of various components and prepare rough cost estimates with a break-up of cost for each component separately. To the construction cost arrived at, the Consultant may add provisions for physical and price contingencies, etc. The project cost for different phases shall be indicated separately
- g. Preliminary design drawings together with outline specifications shall be adequately clear so as to safeguard the functional requirements of MMRCL.
- h. For detailing and explaining the plans/structures/structural components, 2D, 3D sketches using software shall also be provided.
- i. The Architectural designs should conform to the objectives as mentioned in section 5.2.

vi. To prepare Construction methodology, sequencing, scheduling, and timeframe:

- a. As metro station works at adjoining plot would continue during project implementation, the construction may have to planned and executed in phases.
- b. The consultant must address this challenge by suggesting and appraising MMRC on appropriate construction methodology to be adopted, appraise on applicability of rapid construction technology or modern construction techniques and equipment and making necessary provisions and to deploy the same if approved
- c. To finalize PERT / CPM and Bar Chart, estimated project timelines, construction schedule in consultation with MMRC and Metro Consultants, showing physical and financial targets proposed to be achieved month wise for the period of contract.

vii. To prepare Detailed Design of Structures and Systems:

a. After preparation of the preliminary Architectural Designs and on specific approval of MMRCL, the detailed design of structures and systems shall be taken up by the Consultant.

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- b. The Consultant shall be required to carry out the complete detailed design of structures and systems pertaining to civil, electrical, security, fire-fighting, ventilation, MEP Services, vertical circulation elements, etc. and including the detailed examination of proposed design for vibrations, acoustics, considerations for the Persons with Disabilities and other aspects as per MMRCL's specifications, requirements and directions.
- c. The consultant is responsible for designing and provision of building services of adequate capacities as per the statutory guidelines and local norms eg. Provision of underground and overhead tanks, pumps, STP, fire hydrants, sprinkler systems, alternate power supply such as DG sets, provision of Building Management systems, Meter rooms, electric and fire panels etc.
- d. Before taking up design, the Consultant shall prepare, and get approved from MMRCL, the Design Basis Report (DBR) covering the basic approach to design, software to be used, the codes to be followed including their hierarchy and the various important parameters of design. The DBR shall be prepared separately for each major area of design like civil, MEP etc. as per requirement & direction of MMRCL. This is for ample clarity in all design work including proof vetting of structure, MEP or other services work.
- e. The detailed structural designs should be designed in co-ordination with GC and Metro contractors confirming to the acceptable loading on the underground metro-station box and other metro station works.
- f. The above detailed design shall be given in-principle approval by MMRCL for which the proof checking shall be done by Consultant for structural design, MEP and other service design from the reputed institutions eg. IIT, VJTI etc.
- g. It shall be responsibility of the Consultant to associate with the agency chosen by MMRCL for carrying out the proof checking, the payment for which would be made separately and should not be the part of the quoted fees.
- h. The Consultant shall carry out checking and certifying the following:
 - 1. Reinforcement (Including Structural Design)
 - 2. Bearing capacity of foundation stratum
 - 3. Design mix
 - 4. Temporary work / centering and short laying work

viii. Landscaping:

a. The Consultant is required to provide landscape related services in respect of the site appraisal and suitability, site planning, land-form and grading, surface drainage design and water management, irrigation design, pen space design - hard and soft areas including plot

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- level roads, Pathways, plain or geometric, planting designs, landscape structures and features, street and garden furniture design, illumination designs for outdoors, site and building level graphic design and signages, co-ordination of external services etc.
- b. Schemes including detailed analysis and design for each of the above services shall be prepared. Detailed DBRs (wherever applicable or sought) and schemes for each shall be submitted to for review and approval.
- c. On approval of the above, design details and detailed construction drawings shall be prepared and submitted for final review.
- d. Subsequent to incorporation of all comments as received from MMRC after final review, the design details and detailed construction drawings shall be submitted for final approval.
- e. Detailed schemes and designs shall be as per the latest revisions of relevant IS code provisions and other applicable standards including the local statutory authorities' requirements.

ix. Interior Designs:

- a. The Consultant is required to provide interior designs for the common spaces such as entrance lobbies, passages, club house, gymnasiums, residential apartment kitchens, baths and toilet spaces etc.
- b. The scope of interior services to be provided by the consultant would consist of space planning, design of fixed items of work and interior related civil works, illumination designs, graphic designs and signages, selection of furniture, materials, equipment, other interior related elements, integration of all building engineering services, modular kitchen etc
- c. The consultant should finalize the interior finishes/ materials with MMRC team by presenting various material pallets and approval of the specific finishes from MMRC.

x. Parking Systems

- a. The Consultant is required to design and provide parking spaces for two wheelers, four wheelers as per the statutory regulations
- b. The consultant should provide the mandatory parking with optimum utilization of spaces
- c. The consultant would be responsible for the detailed design of the parking system, estimation of the same, preparation of tender drawings etc., identification of vendors for specifications etc. after necessary approvals from MMRC at no additional cost

xi. To prepare BOQ and Cost Estimations:

a. The item wise quantities for different items/ components of work shall be prepared along with estimated rates to form Bill of Quantities (BOQ).

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- b. Consultant shall undertake the complete project concept development, finalization as approved by MMRCL.
- c. Preparation of detailed cost estimates for works along with rate analysis for Non-Scheduled items, including final schedule of finishes, estimated quantities and rate for building floor areas, underground construction, foundation, roof structure, roof covering, steel structure, Roads, Landscaping, Electrical sub stations, A.C. and Ventilation, light, amenities, Building Management System and building services including escalators, lifts, parking systems, fire alarm, fire-fight evacuation, special finishes, security equipment/system, water supply, sewerage, power supply, etc. under separate sub heads so that the reasonableness of the cost estimate can be ascertained.
- d. Consultant shall ensure that proposed development components are structurally sound, and the cost estimates are accurately calculated based on adequate data. Furthermore, they shall be responsible for technical soundness of the estimate as well as the quantities of items, standards, specifications, etc.

xii. To prepare drawings in BIM, manage and update construction timelines and schedule

- a. The consultant shall prepare all the finalized drawings (Architectural, Structural and MEP etc.) in BIM format using NAVISWORKS, Revit Architecture and Structural or any such equivalent software. The consultant should be equipped with the latest version of requisite software.
- b. The consultant should ensure a dedicated team for preparation of BIM drawings
- c. The consultant has to ensure that the format in which the BIM drawings are prepared are in synchronization with GC prepared Metro structure drawings in order to ease the transfer of files, ease the examination of the drawings
- d. The consultant should ensure timely updates in the BIM drawings, especially during construction phase and should co-ordinate with contractor(s) team
- e. The project construction timelines, schedules should be prepared along with the drawings in the BIM format.
- f. The BIM drawings should be prepared with all the exterior, requisite interior finishes, structural elements, MEP elements etc. and should be handed over to MMRC in soft copy format.
- g. The drawing in BIM should enable conflict resolutions and assist in further asset maintenance by MMRC and with this regard, Level of Development for BIM drawings applicable for the project would be LOD 350-400.

xiii. To prepare Tender Drawings and Bid Documentations:

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- a. The consultant shall prepare Tender Drawings and other requisite Documents for inviting bids for the selections of Project Management Consultant and Contractor(s) separately
- b. Tender Drawings and Documents shall contain all necessary details, information, specifications, quantities, etc. required for selection of Project Management Consultant and Contractor(s)
- c. The drawings shall indicate the various phases distinctly to allow the Contractor(s) and Project Management Consultant to easily identify the scope of work and plan interface of work in subsequent phases.
- d. The drawings shall contain all necessary details pertaining to architectural, interior, structural, plumbing, electrical and mechanical, Fire Fighting, Landscaping and other service designs.
- e. The consultant should finalize the exterior and interior finishes/ materials with MMRC team by presenting various material pallets and approval of the specific finishes from MMRC.
- f. Consultant shall prepare dimensioned floor plans (all floors), elevation (all sides), Sections (as per requirement), door window schedule, details of circulation cores, toilet details, service layouts, capacity of facilities, schedule of finishes, detailed quantities, etc.
- g. The consultant should also assist MMRC in inviting bids for the appointment of contractor(s) and Project Management Consultant separately.

xiv. Preparation and Management of Technical aspects of Bid Process Management:

 Technical assistance of the Consultant for the Bid Process Management and the appointment of the Project Management Consultant and Contractor(s) shall be extended to MMRC at no additional cost.

xv. Assessment of additional requirement of utility infrastructure:

- a. Consultant shall make an assessment of the impact on infrastructure demand in terms of water, sewerage, power, etc. for the entire development proposed for the entire Project. To ensure uninterrupted supply of water for the Project site and adequate augmentation of other utilities like electric supply, sewerage lines, storm water drainage, etc. shall be studied in detail.
- b. The services required are to be planned for and integrated with overall planning with adequate details such that GFC's can be prepared in subsequent stages. Cost estimates for all these requirements shall also be included.

xvi. <u>Preparation of GFC Drawings, co-ordination with site regarding interpretation</u> and verification of As-built drawings:

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- a. The Consultant shall carry out detailed design and the GFCs shall be developed on the basis of approved GADs.
- b. GFCs shall contain all details, notes, dimensions, etc. required at site to construct the project in the manner designed by the Consultant and approved by MMRCL.
- c. GFCs shall include Architectural, Structural, Plumbing, Electrical, Water Supply, Sewage, Sanitation, Rainwater Harvesting, Fire Fighting, Landscape, interior schedule of finishes, HVAC, MEP Services, Parking system detc. drawing sets including all necessary dimensioned floor plans, elevations, sections, door/window schedules, details of circulation cores, toilet details, service layouts, coordinated service layouts, with use of BIM modeling, Reflected Ceiling plans, drawings for STPs, ETPs, Pump Rooms, Generators, Roads, Guard Rooms, Boundary Walls, Over Head/Under Ground Water, Fire Tank, etc. complete required for construction of mandatory development at site.
- d. All GFC's shall be issued by Technical Consultant duly stamped & signed by Team Leader, based on the approved design for execution of work at site.
- e. The Consultant must endeavor to provide GFCs such that the work of the Contractor(s) is not delayed on account of the same.
- f. The Consultant shall clarify the drawings/design, offer interpretation of the drawings/specifications to the Contractor(s).
- g. The Consultant shall conduct periodic site visits to understand the issues related to construction and issue revised GFCs as per requirements on site.
- h. The consultant shall also verify the 'as-built' drawings as and when required for obtaining the necessary OC permissions from Competent Authorities at no additional cost.

xvii. To obtain Environmental Clearance/ CRZ Clearance, preparation of statutory compliance reports and EMP:

- a. In case the proposal requires Environmental Clearance, the consultant should carry out necessary studies such as Traffic studies and analysis, wind analysis, ventilation analysis, shadow analysis, ECBC Compliances, impact predictions and EMP etc.
- b. The consultant should also prepare Solid Waste Management plan, debris disposal, recycling, public health, water and air pollution control plan prior and during construction process as and when required. The management plan shall include project specific mitigation and monitoring measures for identified impacts as well as management and monitoring plans to address them.
- c. After obtaining the Environmental Clearance from the Statutory Authorities, the Consultant should also prepare timely compliance reports (approx. six-monthly reports) to be submitted to the SEAC/SEIAA for site related updates.

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- d. Similarly, the consultant should obtain necessary CRZ clearances for the same
- e. Similar reports incase required to be prepared for other regulatory authorities eg. MPCB etc.

xviii. To act as Project Co-Ordinator:

- a. The consultant should co-ordinate with MMRC, with statutory authorities such as traffic department, various utility providers etc.
- The consultant should co-ordinate with General Consultants appointed by MMRC, Metro Site Contractors, Metro Detailed Design Consultant team and other related consultants appointed by MMRC
- c. To conduct workshops/ meeting with various stakeholders, whenever necessary
- d. The consultant should also co-ordinate with the to be appointed PMC and Contractor(s) for all site related works and provide timely updated to MMRC
- e. Adequate supervision should be ensured from issue of work order up to the date of Occupation certificate.
- f. The consultant should prepare periodic reports and make presentations to MMRC on fortnightly basis until the completion the project.

xix. Periodic Site Visits:

- a. The consultant should ensure timely site visits during pre-construction and monthly visits during construction phase and deploy necessary staff for the same
- b. The Consultant should arrange for timely site visit which shall take place at the time of finalizing lineout, at the time of foundation laying, plinth level, first lintel level, every slab level, before masonry work on each floor before plastering, internal as well as external, before fixing the toilet fixtures, before waterproofing, before fixing of shutters and at such time if major deviation to be made from earlier decision.
- c. The Consultant to keep timely record of the inspections conducted by the Architect and report to MMRC on fortnightly basis.

xx. To prepare visualizations and design Project Brochure:

- a. To prepare 3D visualizations, walkthroughs, physical models for various presentation purposes from time to time for appraisals to various authorities
- b. The 3D visualizations, walkthroughs and renders should include the following:
 - Exterior facades of the building from all sides, exterior views of the salient features of the proposed buildings
 - Interior views, isometric views of various residential/ commercial units depending upon the unit size

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- Complete project walkthrough with all the necessary details explaining the project
 minimum 2 min
- Small project walkthroughs (min 30 sec- 1 min)
- c. To design necessary design brochures explaining the project and showcasing rehab and free sale component floor plans, necessary salient features etc.

xxi. Miscellaneous:

- a. The Consultant shall incorporate required parameters of MCGM's & DRP's Development Plans while planning, master plan and detailing for integrated development & commercial development. Furthermore, local aesthetics and local architecture of area to be incorporated in the aforesaid process.
- b. The consultant to act as representative, supervise and monitor the construction of the proposed buildings with a view to ensuring quality of work and timely completion.
- c. The consultant shall take necessary in-principal approvals from MMRC at critical stages of design development and prior to finalization of drawings/ documentations Consultant shall undertake vetting of GFC drawings, statutory drawings and approvals through proper Technical/Financial/Relevant Experts of the proposed design and drawings as required by MMRCL.
- d. It will be the Consultant's responsibility to fully defend the solution proposed by him should there be questioned by MMRCL at any stage of the bidding process for award of development contract.
- e. The Consultant shall prepare detailed design and tender drawings to ensure that detailed item wise quantities are worked out and tender for appointing Contractor(s) can be called on Bill of Quantities (BOQ) basis or any other tender mode and the work be executed on the basis of GFCs to be prepared by the Consultant.
- f. Once the bid documents are released, the Consultant shall prepare replies to the queries made by the bidders on the technical aspects of the bid documents. The Consultant shall take part in the pre-bid conference for award of tender and furnish such technical clarifications as may be called for.
- g. The phasing of adjoining metro station works, and Project works shall be as approved by MMRCL taking an overall view of metro operational requirement, market conditions and overall interest of the project.
- h. The consultant to report and make periodic presentations to MMRC on fortnightly basis till designs are finalized and subsequently make periodic site visits as required
- i. Consultant should provide stability certificate/BCC to client which is required, to obtain Occupation Certificate for MCGM.

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5.4.2 SCOPE OF SERVICES AS LAISONING ARCHITECT:

i. Preparation of plans/ drawings for approvals of Competent Authorities:

- all the requisite NOCs/ clearances/ remarks required for initiation of the construction of the project and occupancy of the same. The same should be prepared considering the phasing timelines. There should be timely updation in the charts depending upon the progress of the works.
- b. Preparation of necessary plans and documentations eg. Municipal plans for MCGM/DRP, requisite area statements, preparation of documentations for the approvals from Competent Authorities eg. MCGM, DRP, AAI, SEAC/SEIAA, MPCB, Roads and Traffic division wherever necessary.
- c. Preparation of applicable documentations for the submission of the project to the Competent Authorities for obtaining statutory and regulatory approvals such as Annexure-I, Annexure- II, Letter of intent (LOI), Letter of Approval (LOA), Intimation of Approval (IOA)/ Intimation of Disapproval (IOD), Commencement Certificate (CC) and Occupation Certificate (OC), CFO NOC, SWM NOC, Environmental Clearances, MPCB clearances etc. from concerned authorities.
- d. As the proposed developments are integrated with underground Metro Stations, NOC from MMRC Planning Department is necessary for initiating construction on site. The Consultant should prepare documentations for obtaining such NOC.
- e. The consultant should provide realistic cost estimates for obtaining the necessary approvals, which will be a part of the Cost estimate to be put up for Administrative/ Board approvals whenever necessary.

ii. Obtaining necessary clearances/ approvals from Statutory/ Regulatory Authorities:

- a. Submission of plans approved by MMRC for submission to regulatory authorities for statutory/ regulatory approvals
- D. The Laisoning Architect should obtain all the necessary approvals from the Planning Authority including but not restricted to CFO NOC, IOD, CC, OC, SWM NOC, HE NOC, Traffic and Road Remarks etc. In addition, the consultant should also obtain regulatory approvals such as Environmental clearance wherever necessary, MPCB clearances such as Consent to Establish, Consent to Operate etc., NOC from AAI on height restrictions and other such regulatory approvals.

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- c. The Laisoning Architect should follow-up with concerned authorities to ensure above approvals are obtained expeditiously
- d. The Laisoning Architect should provide timely updates on the status of all the necessary approvals to MMRC
- e. The Laisoning Architect should identify the bottlenecks in approval process and report the same to MMRC
- f. The Consultant should interact with the relevant authorities, wherever required for obtaining clearances/approvals and carry out necessary changes/ improvements required for obtaining such clearance/ approval.

iii. Exclusions (under Laisoning Architect):

a. Expenses directed towards obtaining approvals from Govt./ MCGM/ DRP and other Competent Authorities such as development fees and charges, premium payments for additional FSI, bank guarantees payable towards statutory bodies, other overheads etc.

5.5 DELIVERABLES

- 5.5.1 The Consultant shall deliver the following deliverables (the "Deliverables") during the course of this Consultancy.
- 5.5.2 Each Deliverable shall include drawing, report, photographs and such other documents that generally comprise Deliverable for similar consultancy work by way of best practices.
- 5.5.3 Consultant shall also provide drawing deliverable schedule for all type of Drawings. [The size of drawings shall be A-1, A-2 or on larger sized sheets as required by MMRCL.

Sr. No.	Description of Work	Number of Copies	Duration
1	Inception Report	2 hard copies and mail	Within 30 days of
1	песрион кероп	2 nard copies and man	appointment
	Architectural Plan submission for	2 hard copies and mail	Within 60 days of
	MMRC approval	2 nard copies and man	appointment
2	Necessary Approvals from Competent	As per the deliverable	Within 120 days of
2	Authorities	format	appointment
	RCC, MEP Drawings, Working		Within 160 days of
3	Drawings, GFC & other requisite	2 hard copies and mail	
	drawings		appointment
4	Complete bid document for appointment	A = ==================================	Within 180 days of
4	of PMC and Contractor	As per requirement	appointment
6	Pid avaluation Papart	2 hand comics and mail	Within 270 days of
0	Bid evaluation Report	2 hard copies and mail	appointment
	Construction stagewise approvals, Shop		
7	drawings, monthly site visits, PMC	As per the deliverable	Within 960 days of
/	schedule vetting, financial scheduling	format	appointment
	review, verified 'as built' drawings		

Consultant

Q	Completion report and obtaining OC	2 hard copies and mail	Within 990 days of	
O	Completion report and obtaining OC	2 hard copies and man	appointment	

Additional copies of above reports if required shall be furnished by the consultants without any extra cost to MMRC.

5.6 SUBMISSION AND MEETING RELATED COMPLIANCES

5.6.1 Following are the submission and meeting related compliances to be undertaken by the consultant whenever required:

Sr. No.	Description of Work	Number of Copies	Duration	
1	Monthly progress reports on achievements, man-month deployment and other important aspects.	1 hard copy + mail	Every month	
2	Special reports, if required for appraisal of MMRC	1 hard copy + Mail	As and when required	
3	Special report on any important feature, aspect like claims, variations etc. including financial analysis	1 hard copy + Mail	Whenever asked for or found necessary	
4	Monthly meeting for project related update with ED (Planning)	1 hard copy of MoM for approval	Once every month	
5	Fortnightly meeting for project related updates with requisite departments	1 hard copy of MoM for approval	Twice every month	

5.7 CONSULTANT INPUT

- 5.7.1 The Consultant is required to make their own requirement/ assessment of the manpower required in terms of man month for the different categories of personnel proposed to be deployed for carrying out the technical audit of the work as envisaged in this TOR.
- 5.7.2 Consultants shall submit the details of manpower deployment required for each quarter in advance.
- 5.7.3 Throughout the contract period, the consultant should deploy the personnel as mentioned at **Section 3-Technical Proposal**, according to progress of work.
- 5.7.4 Consultant shall certify actual deployment of manpower at the end of every month and should be a part of monthly report, which shall be taken in to account while calculating his fees.

5.8 PAYMENT IF PROJECT IS DELAYED

5.8.1 In the event of period of services is extended beyond base completion period plus variation period (as agreed by client & consultant), monthly additional payment will be subject to the ceilings given below:

Consultant

80 X Consultancy Fees for the Project Management 100 X Contract Period in Months

- 5.8.2 The payment for the extended period will be made on actual man month, with prior approval from employer (Client). The additional payment will be worked out in proportion of deployment of actual man months, certified by architect in charge.
- 5.8.3 Architectural Consultant payment is as per the milestone in the schedule of payment (on page 22).

Consultant shall provide their service for time-period from date of work order till the completion of work.

Consultant

6. STANDARD FORMS OF CONTRACT SECTION

Consultant

ED(Planning)

Appointment of Comprehensive Architectural Services
Consultancy Appointment
for MMRC Staff Quarters at Dharavi

ED(Planning)

6.1 FORM OF CONTRACT

Name of work:

Consultant

'Appointment of Technical Consultant for providing Comprehensive Architectural, Structural, MEP Designing and Liasoning for Development of staff quarters for MMRC at Dharavi'

Agreement

This Agree	ment is made on theday of the month ofand executed at								
	between on the one hand, Mumbai Metro Rail Corporation Limited (MMRC) a company								
incorporated under the provisions of the Companies Act, 1956/2013, having its registered office at									
	Bandra East, Mumbai 400051, hereinafter referred to as the 'Client' on the								
one part, 1	one part, represented by (name and designation of								
representin	g officer), which term shall, unless excluded by or repugnant to the context, be deemed to								
include its	representatives, successors and assignees.								
	AND								
	Consultants having its								
registered/c	corporate office at represented by								
	(name and designation of representing officer) on								
the other p	part (Hereinafter called "Architect & Consultants/Consultant") which term shall, unless								
excluded b	y or repugnant to the context, be deemed to include its representatives, successors and								
assignees.									
WHERE	AS								
a.	The Client is a SPV, Joint Venture Company of Government of India and								
	Government of Maharashtra and implementing underground Colaba-Bandra-								
	Andheri (SEEPZ) Metro Line-3 in Mumbai. The Client desires to appoint a								
	Consultant to provide certain consulting services as defined in the General								
	Conditions and elsewhere of Contract attached to this Agreement (herein called the								
	"Services")								
b.	The Client had invited proposals (via Request for Proposal (RFP) No								
	Dated" from the interested parties for the "Appointment of Technical								
	Consultant for providing comprehensive Architectural, Structural, MEP Designing								
	and Liasoning Services for Integrated Development of the plots at MIDC and								
	Marol Naka Metro Stations for Mumbai Metro Line 3".								
c.	After evaluation of bids, the Client has selected the Consultant on open tendering								

Appointment of Comprehensive Architectural Services
Consultancy Appointment
for MMRC Staff Quarters at Dharavi

basis as they have the required professional skills, personnel and technical resources. The Consultant has agreed to provide the Services specified in Annexure 1 on such terms and conditions as set forth in this Agreement.

NOW THIS AGREEMENT WITNESSETH AND THE PARTIES HEREBY AGREE AS FOLLOW:

- 1) The Agreement shall come into effect on the date of issue of Work Order (Effective Date).
- 2) This Agreement shall remain in force for a period of 33 months (9 months of pre-construction services and 3 months of intermittent services during 24 months of construction period) and shall continue until all of the Services are completed; unless terminated earlier subject to the provisions of this Agreement.
- 3) The Consultant shall ensure deployment of key personnel and support staff/ engineers for period as quoted in their proposal including construction phase and there will be no upward revision in consultant fee. However, any shortfall in deployment would entail proportionate reduction in contract value.'
- The following documents attached hereto shall be deemed to form an integral Part of this contract.
 - i. The work order issued by Client
 - ii. The Letter of Acceptance (LOA) issued by the Client
 - iii. All the submission Proposals and documents made by the Consultant as part of the RFP submission:
 - iv. Terms of Reference to the RFP
 - v. The General conditions of contract (herein after called GCC)
 - vi. The Special conditions of contract (herein after called SCC)
 - vii. Response to pre-bid queries
 - viii.Corrigendum to the RFP if issued by the Client;
 - ix. Addendum(s) to the RFP
 - x. The following Appendices & Annexures

Appendix A : Site Plans and Area Statement.

Annexure I : Proforma for Justifying quoted lumpsum fees

Annexure II : List of Similar works completed in last 5 years

Annexure III : List of similar works in hand

Annexure IV : Key Personnel and Sub-Consultants

Annexure V : Format for CV of proposed Key Staff

Consultant

Annexure VI : Financial Statement

	Annexure VII : Litigation History
5) The mu	tual rights and obligations of the Client and the Consultants shall be as set forth in the
Agreem	ent; in particular:
a)	The Consultants shall carry out the Services in accordance with the Provisions of the
	Contract; and
b)	The Client shall make milestone payments to the Consultant in such manner as
	specified in Schedule of payments viz. Annexure
c)	The financial offer including GST submitted by the Consultant while responding to
	the Request for Proposal and accepted by the client is Rs(Rupees
	only)
	half of Mumbai Metro Rail Corporation Limited (50:50 Joint Venture between Findia and Government of Maharashtra)
Authorized R	epresentative of the Client
Witness 1	Witness 2
For and on be	chalf of Consultant
Authorized Re	presentative of the Consultant

Consultant

Witness 1

ED(Planning)

Witness 2

6.2 GENERAL CONDITIONS OF CONTRACT

6.2.1 Definitions:

Unless the context otherwise requires, the following terms whenever used in this contract have the following meanings:

- a. "Applicable Law" means the laws and any other instruments having the force of law in India.
- b. "Contract" means the Contract signed by the Parties, to which these General Conditions of Contract are attached, together with all the documents listed in agreement of such signed Contract:
- c. "Effective Date" means the date on which this Contract comes into force
- d. "Employer/Client" means MMRC represented by Managing Director/Executive Director (Planning)
- e. "Engineer in charge" means any officer designated by the Employer for the project.
- f. "GC" means these General Conditions of Contract
- g. "Government" means the Government of India / Government of Maharashtra.
- h. "Local Currency" means the Currency of the Government of India
- i. "Party" means the Client or the Consultants, as the case may be, and Parties means both of them
- j. "Personnel" means persons hired by the Consultants or by any Sub- consultant as employees and assigned to the performance of the Services or any part thereof
- k. "SCC" means the special Conditions of Contract by which these General Conditions of Contract may be amended or supplemented.
- 1. "Services" means the work to be performed by the Consultants pursuant to this Contract may be amended or supplemented.
- m. "Similar Works" means providing Comprehensive Architectural, Structural and MEP designing services for Real Estate Residential/mixed use projects executed with Built-up area of approx. 6,700 sq.mt. or more and residential building with height of approx. 56mt. or more. Providing Liasoning services is desirable.
- n. "Sub Consultant" means any entity to which the Consultants, sub-contract any part of the Services in accordance with the Provisions of Clauses elsewhere in the contract and
- o. "Third –Party" means any person or entity other than the Government, the Client the Consultants or a Sub-consultant.

6.2.2 Relation between the Parties

Nothing contained herein shall be construed as establishing a relation of Master and servant or of principal and agent as between the Client and the Consultants. The Consultants, subject to this Contract, have complete charge of Personnel and sub – consultants, if any, performing the

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services and shall be fully responsible for the Services performed by them or on their behalf hereunder:

6.2.3 Law Governing Contract

This Contract, its meaning and interpretation and the relation between the Parties shall be governed by the Applicable Law.

6.2.4 A Party may change its address for notice hereunder by giving the other Party notice of such change pursuant to the provisions listed in the SCC.

6.2.5 Location

The services shall be performed at such locations as are specified in Appendix 'A' hereto, where the locations of a particular task is not so specified at such locations as the Client may approve.

6.2.6 Authorized Representative

Any action required or permitted to be taken, and any document required or permitted to be executed, under the contract by the Client or the Consultants may be taken or executed by the officials specified in the SCC.

6.2.7 Taxes, Duties and Currency of Proposal & Payment

6.2.7.1 Taxes and Duties

The Financial proposal shall take into account all the tax liabilities. Further, all payments shall be subject deduction of taxes at source as per Applicable Laws . Unless otherwise specified in the SCC, the Consultants, Sub-consultants and Personnel shall pay any such additional taxes (other than GST), duties, fees and other impositions as may be levied Under the Applicable Law.

6.2.7.2 Currency of Proposal and Payments

The consultant shall express the price for its Services in the Indian Rupees (INR) only. No foreign currency fluctuation will be paid. Payment under the Contract shall be made in the INR only.

6.2.8 Negotiations and Award

Negotiations will be held at the address indicated in the Data Sheet with regard to the weakness if any in the selected proposal. The invited Consultant will, as a pre-requisite for attendance at the negotiations, confirm availability of all Professional Staff. Failure in satisfying such requirements may result in MMRC proceeding to negotiate the next-ranked Consultant. Representatives conducting negotiations on behalf of the Consultant must have written authority to negotiate and conclude a contract.

6.2.8.1 Technical Negotiations

Negotiations will include a discussion of the Technical Proposal, the proposed technical approach and methodology, work plan, organisation and staffing, knowledge

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transfer and training and any suggestions made by the Consultant to improve the Terms of Reference. MMRC and the Consultant will finalise the Terms of Reference, staffing Schedule, Work Schedule, logistics and reporting. These documents will then be incorporated in the Contract as "Description of Services". Special attention will be paid to clearly defining the inputs and facilities required from MMRC to ensure satisfactory implementation of the assignment. MMRC shall prepare minutes of negotiations which will be signed by MMRC and the Consultant.

6.2.8.2 Availability of Key Personnel Staff/ Experts

Having selected the Consultant on the basis of, among other things, an evaluation of the proposed Key Personnel, MMRC expects to negotiate a Contract on the basis of the Professional staff named in the Proposal. Before contract negotiations MMRC will require assurances that the Professional staff will be actually available. MMRC will not consider substitutions during the contract negotiations. If this is not the case and if it is established that Professional staff were offered in the proposal without confirming their availability, this results in rejection of the Consultant's preproposal and the Client proceeding to negotiate the Contract with the next-ranked Consultant.

6.2.8.3 Financial Negotiations

The negotiations include the clarification of the Consultant's tax liability in the Client's country and how it should be reflected in the contract.

Staff month rate negotiation shall not take place, except when the offered Key Personnel and support staff's renumeration rates are much higher than the typically charged rates by consultants in similar contracts. In such cases, the Client may ask for clarifications and, if the fees are very high, ask to change the rates.

6.2.8.4 Conclusion of negotiations

Negotiations will conclude with a review of the draft contract. To complete negotiations, MMRC and the Consultant will initial the agreed Contract. If negotiations fail, MMRC will invite the Consultant whose proposal received the second highest score to negotiate a Contract.

6.2.9 Commencement, Completion, Modification and Termination of Contract

6.2.9.1. Effectives of Contract

This Contract shall come into force and effect on the date (the "Effective Date") of the Client's notice to the Consultants instructing the Consultants to begin carrying out the Services and shall confirm that the effectiveness conditions, if any listed in the SCC have been met.

6.2.9.2 Commencement of Services

Consultant

The Consultants shall begin carrying out the Services at the end of such time period after the effective date as shall be specified in the SCC.

6.2.9.3 Expiration of Contract

Unless terminated earlier pursuant to Clause GC 6.2.8.10 hereof, this Contract shall expire when services have been completed and all payments have been made at the end of such time period, after the effective date as shall be specified in the SCC.

6.2.9.4 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.

6.2.9.5 Modification

Modification of the term and conditions of this Contract, including any modification of the scope of the Services, may only be made by written agreement between the Parties.

6.2.9.6 No Breach of Contract

The failure of a party to fulfill any of its obligations hereunder shall not be considered to be a breach of, or default under this Contract so far as such inability arises from an event of Force Majeure, provided that the Party affected by such an event has taken all reasonable precautions due care and reasonable alternative measures, all with the objective of carrying out terms and conditions of this Contract.

6.2.9.7 Measures to be taken

- a. A Party affected by an event of Force Majeure shall take all reasonable measures to remove such Party's inability to fulfill its obligations hereunder with a minimum of delay.
- b. A Party affected by an event of Force Majeure shall notify the other Party of such event as soon as possible and in any event not later than fourteen (14) days following the occurrence of such event providing evidence of the nature and causes of such event and shall similarly give notice of the restoration of normal conditions as soon as possible.
- c. The Parties shall take all reasonable measures to minimize the consequences of any event of Force Majeure.

6.2.9.8 Extension of Time

Any period, within which a party shall pursuant to this Contract complete any action or task shall be extended for a period equal to the time during which such Party was unable to perform such action as a result of Force Majeure.

6.2.9.9 Suspension

Consultant

The Client may, by written notice of suspension to the Consultants, suspend all payments to the Consultants hereunder if the Consultants fail to perform 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.

6.2.9.10 Termination

The Client may by not less than thirty (30) days shall give the written notice of termination to the Consultants after the occurrence of any of the following events (except in the event listed in the paragraph (f) below, for which there shall be a written notice of not less than sixty days). Such notices to be given after the occurrences of any of the events specified in the paragraphs (a) through (g).

- a) If the Consultants fail to remedy a failure in the performance of their obligations hereunder, as specified in a notice of suspension pursuant to clause GC 6.2.8.9 herein above, within thirty (30) days of receipt of such notice of suspension or within such further period as the Client may have subsequently approved in writing;
- b) If the Consultants become (or, if the Consultants consist of more than one entity, if any of their Members becomes) insolvent or bankrupt or enter into any agreements with their creditors for relief of debt or take advantage of any law for the benefit of debtors or go into liquidation or receivership whether compulsory or voluntary;
- c) If the Consultants fails to comply with any final decision reached as a result of arbitration proceedings.
- d) If the Consultants submit to the Client, a statement which has a material effect on the rights, obligations and interests of the Client and which the Consultants know to be false.
- e) If, as a result of Force Majeure, the Consultants are unable to perform a material portion of the Services for a period of not less than sixty (60) days;
- f) If the Consultant, in the judgment of the Client has engaged in corrupt or fraudulent practices in competing for or in executing the Contract.
- g) If the Client in its sole discretion for any reason whatsoever, decides to terminate this contract.

Consultant

6.2.10 Cessation of Rights and Obligations

Upon termination of this Contract pursuant to Clauses GC 6.2.8.10 hereof, or upon expiration of this contract, pursuant to Clause GC 6.2.8.3 all rights and obligations of the Parties hereunder shall cease, except:

- Such rights and obligations as may have accrued on the date of termination or expiration;
- ii) The obligation of confidentiality.
- iii) The Consultants obligation to permit inspection copying and auditing of their accounts and records set forth.
- iv) Any right which a Party may have under the applicable law.

6.2.11 Disputes about Events of Termination

- a. Except where otherwise specified in the contract and subject to the powers delegated to him by MMRC then in force the decision of the Executive Director (Planning) for the time being shall be final, conclusive and binding on all parties to the Contract upon all question relating to the meaning of the contract conditions or as to any other question, claim, right, matter or things, whatsoever if any way arising out of or relating to the contracts.
- b. If the consultants is not satisfied with the order passed by the Executive Director (Planning) as aforesaid, the consultant may within thirty days of receipt by him of any such order appeal against it to the Managing Director who, if convinced that prima facie the consultants claim rejected by Executive Director (Planning) is not frivolous and that there is some substance in the claim of the consultant as would merit a detailed examination through a suitable committee appointed for the purpose by the Managing Director if necessary and in that case decision taken by the committee shall be finalized by the competent authority and same shall be binding to the Consultant

6.2.12 Obligations of the Consultants

6.2.12.1 General

a) Standards of Performance

The Consultants shall perform the Services and carry out their obligations hereunder with all due diligence, efficiency and economy in accordance with Generally accepted professional techniques and practices and shall observe sound management practices and employ appropriate advanced technology and safe and effective equipment, machinery, materials and methods. The Consultants shall always act, in respect of any matter relating to this Contract or to the services, as

Consultant

faithful advisor to the Client, and shall at all times support and safeguard the Client's Legitimate interests in any dealings with Sub-consultants or Third Parties.

b) Law Governing Services

The Consultants shall perform the services in accordance with the Applicable Law and shall take all practicable steps to ensure that any Sub- consultants, as well as the Personnel of the Consultants and any Sub – consultant, comply with the Applicable Law.

6.2.12.2 Conflict of Interest

- a) Consultants Not to Benefit from Commissions, Discounts, etc. The remuneration of the Consultants, shall constitute the Consultant's sole remuneration in connection with this Contract or the Services and, the Consultants shall not accept for their own benefit any trade commission, discount or similar payment in connection with activities pursuant to this Contract or to the services or in the discharge of their obligations hereunder, and or to the Consultants shall use their best efforts to ensure that any sub consultants, as well as the Personnel and agents of them, similarly shall not receive any such additional remuneration.
- b) Consultants and Affiliates Not to engage in Certain Activities

 The Consultants agree that during the term of this Contract and after its termination, the Consultants and any entity affiliated with the Consultants as well as any Sub-Consultant and any entity affiliated with such Sub- Consultant, shall be disqualified from providing goods, works or services (other than the Services any continuation thereof) for any project resulting from or closely related to the Services.
- c) Prohibition of Conflicting Activities

The Consultants shall not engage, and shall cause their Personnel not to engage, either directly or indirectly, in any of the following activities:

- 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; and
- ii. After the termination of this contract, such other activities as may be specified in the SCC.

6.2.12.3 Confidentiality

The Consultants, their sub consultants and the Personnel of either of them shall not, either during the term or within two (2) years after the expiration of this Contract, disclose any proprietary or confidential information relating to the Project, the Services,

Consultant

this Contract or the Client's business or operations without the prior written consent of the Client.

6.2.12.4 Liability of the Consultants

Subject to additional provisions, if any set forth in the SCC, the Consultants liability under this Contract shall be as provided by the Applicable Law.

6.2.12.5 Insurance to be Taken Out by the Consultants The Consultants

- i) shall take out and maintain, and shall cause any 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 Client, insurance against the risks, and for the coverage, as shall be specified in the SCC, and
- ii) at the Client's request, shall provide evidence to the Client showing that such insurance has been taken out and maintained and that the current premiums therefore have been paid.

6.2.12.6 Consultants Actions Requiring Client's Prior Approval

The Consultant shall obtain the Client's prior approval in writing before taking any of the following actions:

- a) Appointing such members of the Personnel ("Consultants sub consultants' Key Personnel") merely by title but not by name. The consultant shall not change the Key Personnel proposed for the work without any valid reasons acceptable to the Client. A penalty of Rs. 25,000/- will be levied if the consultant changes the Key Personnel proposed without valid reasons.
- b) Entering into subcontract for the performance of any part of the Services, and note
 - that the selection of the Sub Contractor and the terms and conditions
 of the subcontract shall have been approved in writing by the Client prior
 to the execution of the sub contract, and
 - that the Consultants shall remain fully liable for the performance of the Services by the sub-consultant and its Personnel pursuant to this Contract; and
- c) Any other action that may be specified in the SCC.

6.2.12.7 Reporting Obligations

The Consultants shall submit to the Client the reports and documents as may be specified hereto, in the form, in the numbers and within the time periods set forth.

6.2.12.8 Documents prepared by the Consultants to be the Property of the Client

Consultant

All plans, drawings, specifications, designs, reports, other documents and software prepared by the Consultants for the Client under this Contract shall become and remain the property of the Client, and the Consultants shall not later than upon termination or expiration of this Contract, deliver all such documents to the Client, together with a detailed inventory thereof. The Consultants may retain a copy of such documents and software, Restrictions about the future use of these documents and software, if any shall be specified in the SCC.

6.2.12.9 Equipment and Material Furnished by the Client

All the required material, equipment required for the job shall be arranged by the Consultant.

6.2.13 Consultants Personnel and Sub –Consultants

6.2.13.1 General

The Consultants shall employ and provide such qualified and experienced Personnel and Sub-consultants as are required to carry out the Services.

6.2.13.2 Description of Personnel

- a) Name of the key persons shall be given.
- b) If additional work is required beyond the scope of the Services specified, the estimated periods of engagement of Key Personnel may be increased by agreement in writing between the Client and the Consultants, if any such increase shall not, except as otherwise agreed, cause payments under this Contract to exceed the ceilings.

6.2.14 Approval of Personnel

The Key Personnel and Sub –consultants listed by title as well as by name are required to be approved by the Client. In respect of other Key Personnel which the Consultants propose to use in the carrying out of the Services, the Consultants shall submit to the client for review and approval a copy of their biographical data.

6.2.15 Removal and / or Replacement of Personnel

- a) Except as the Client may otherwise agree, no changes shall be made in the Key Personnel. If, for any reason beyond the reasonable control of the Consultants, it becomes necessary to replace any of the Personnel, the Consultants shall forthwith provide as a replacement a person of equivalent or better qualifications.
- b) If the Client
 - (i) finds that any of the Personnel has committed serious misconduct or has been charged with having committed a criminal action, or

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- (ii) has reasonable cause to be dissatisfied with the performance of any of the Personnel, then the Consultants shall, at the Client's written request specifying the grounds therefore, forthwith provide as a replacement a person with qualification and experience acceptable to the Client.
- c) Any of the Personnel provided as a replacement under Clauses (a) and (b) above, the rate of remuneration applicable to such person as well as any reimbursable expenditures (including expenditures due to the number of eligible dependents) the Consultants may wish to claim as a result of such replacement, shall be subject to the prior written approval by the Client. Except as the Client may otherwise agree,
 - (i) the Consultants shall bear all additional travel and other costs arising out of or incidental to any removal and/or replacement, and
 - ii) the remuneration to be paid for any of the Personnel provided as a replacement shall not exceed the remuneration which would have been payable to the Personnel replaced. In case, the personnel of consultant remains absent from work for more than 15 days, proportionate payment will be deducted from consultant's payments.

6.2.16 Fairness and Good Faith

6.2.16.1 Good Faith

The Parties undertake to act in good faith with respect to each other's rights under this Contract and to adopt all reasonable measures to ensure the realization of the objective of this Contract.

6.2.16.2 Operation of the Contract

The Parties recognize that it is impractical in this Contract to provide for every contingency which may arise during the life of the Contract, and the Parties hereby agree that it is their intention that this Contract, shall operate fairly as between them, and without detriments to the interest of either of them, and that, if during the term of this Contract either Party believes that this Contract is operating unfairly, the Parties will use their best efforts to agree on such action as may be necessary to remove the cause or causes of such unfairness, but no failure to agree on any action pursuant to this Clause shall give rise to a dispute subject to arbitration.

6.2.17 Settlement of Disputes

6.2.17.1 Dispute Resolution:

If the dispute cannot be settled amicably within sixty (60) days after serving notice of dispute, the Parties may endeavour to settle the dispute by way of an arbitration under the provisions of the Arbitration & Conciliation Act, 1996 including its amendments thereof. The sole arbitrator shall be appointed by mutual consent of both the parties within 30 days from the date of first written intimation of the intent to resolve the

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dispute by arbitration. If the parties fail to appoint the sole arbitrator by mutual consent, as above, the same shall be appointed as per the provision of the Arbitration and Conciliation Act, 1996, including its amendments thereof. The Seat of arbitration shall be Mumbai and the language of arbitration shall be English. The decision of the arbitrator shall be final and binding upon the Parties. Both the parties shall bear the cost of the arbitration in equal proportion unless otherwise decided by the sole arbitrator. The parties agree that the existence and content of the arbitration and the terms of the order or award made in the arbitration shall, except as may be required by law, be kept confidential.

Consultant

6.3 SPECIAL CONDITIONS OF CONTRACT

Number of GCC Clause	Amendments of, and Supplements to, Clauses in the General Conditions of Contract				
6.2.4	The addresses are:				
	Employer:				
	Mumbai Metro Rail Corporation Limited				
	Attention: R. Ramana, Executive Director (Planning)				
	Consultant: (Registered address of awardee tenderer)				
6.2.6	The authorized Representatives are:				
	For the Employer: R. Ramana, Executive Director (Planning)				
	For the Consultant: The Authorized Representative, mentioned in Authority				
	letter.				
6.2.7	The consultants, Sub- consultants and the Personnel shall pay the taxes, duties,				
	fees, levies and other impositions levied under the existing, amended or ena				
	laws during life of this contract and the client shall perform such duties regarding				
	the deduction of such tax as per prevalent laws inforce.				
6.2.9.1	The effective date shall come into effect on the date contract is signed by both				
	parties				
6.2.9.2	The date of commencement of services is 15 days from the effective date.				
6.2.9.3	The time period shall be 33 months (9 months of pre-construction services and 3				
	months of intermittent services during 24 months of construction period) from the				
	effective date of contract				
6.2.12.4	Limitation of the Consultants liability towards the Client				
	a) 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 Client's property, shall not be liable to the Client:				

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- i) For any indirect or consequential loss or damage, and
 ii) For any direct loss or damage that exceeds
 (A) the total payments for Professional Fees an
 - (A) the total payments for Professional Fees and Reimbursable Expenditures made or expected to be made to the Consultants

Or

(B) entitled to receive from any insurance maintained by the Consultants to cover such a liability,

whichever of (A) or (B) 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.

6.2.12.5

The risks and the coverages shall be as follows: The insurance shall be Taken from: Directorate of Insurance Maharashtra State, Mumbai - 400051.

- a) Third Party motor vehicle liability insurance as required under Motor Vehicles Act, 1988 in respect of motor vehicles operated in India by 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 of Rs.5.0 Lakh for the period of consultancy.
- c) Professional liability insurance, with a minimum coverage equal to Estimated remuneration and reimbursable as per 6.2.11.4 (a) (ii) of GCC of the consultancy.
- d) Client's liability and worker's compensation insurance in respect of the Personnel of the Consultants and of any Sub- consultant, in accordance with the relevant provisions of the Applicable Law, as well as, with respect to such Personnel, any such life, health accident, travel or other insurance as may be appropriate; and
- e) 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

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	iii) any documents prepared by the Consultants in the Performance				
	of the Services.				
6.2.12.8	The Consultants shall not use these documents for purposes unrelated				
	o this Contract without the Prior written approval of the Client.				
6.2.12.9	The Special Conditions of Contract (SCC) shall prevail over General Conditions				
	of Contract (GCC) in case of any contradiction between SCC and GCC.				

Annexure-I

Follo	Following pro forma justifying quoted Lumpsum fees					
	A- Remuneration for					
S. No.	Position	Salary per month	Requirement as per contract	Total salary		
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
B- R	emuneration for Su	ıpporting, Engine	ers, Supervisory Staff:			
S.	Position		Requirement as per contract	Total salary		
No.		month				
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
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14						
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17						
18						
19						
20						
21						
22						
23						
24						
25						
C- A	ll other Miscellaneo	ous expenses:				
	All other local Services rentals, transportation, utilities, survey, preparation of printing drawings (any size & number)/reports, office furniture & equipment, communication etc. complete including overheads. Total Cost (C) for 12 months					
	Total Cost of Consultancy work i.e. Rs.					
(A+I	$(\mathbf{A} + \mathbf{B} + \mathbf{C}) = \mathbf{D}$					

Annexure-II LIST OF SIMILAR WORKS COMPLETED IN LAST FIVE YEARS

S. No.	Name of Work and Location	Owner or Sponsoring Organization	Cost of Work (In Lakhs)	Date of commencement as per work order	Stipulated completion date	Actual completion date

Note: - Work order along with completion certificate copies, duly signed by competent Authority must be attached. Consultant may use additional sheets if required.

Seal and signature of bidder

Annexure-III LIST OF SIMILAR WORKS IN HAND

S.	Name of	Owner or	Cost of	Date of	Stipulated	Proposed
No.	Work and	Sponsoring	Work	commencement	completion	completion
	Location	Organization	(In	as per work	date (as per	date
			Lakhs)	order	Contract)	

Note: - Work orders, duly signed by competent Authority must be attached. Consultant may use additional sheets if required.

Seal and signature of bidder

Annexure IV KEY PERSONNEL AND SUB CONSULTANTS

Sr. No.	Name	Qualification	Position	Task
1	Traine	Quantication	1 OSITION	TUSK
2				
3				
4				
5				
6				

NOTE: Consultant is required to submit the resume of each of the above personnel.

Deployment schedule of Key Expert, Engineers, Supervisory staff, Support staff during 16 month contract period shall be submitted along with technical proposal.

Annexure- V FORMAT OF CURRICULUM VITAE (CV) FOR PROPOSED KEY STAFF

1.	Proposed Position:
2.	Name of Staff:
3.	Date of Birth: (Please furnish proof of age)
4.	Nationality:
5.	Educational Qualification: (Summarize college/university and other specialized education of
	staff member, giving names of schools, dates attended and degrees obtained). (Please furnish proof
	of qualification)
6.	Membership of professional societies:
7.	Publications: (List of details of major technical reports/papers published in recognized national and international journals)
8.	Employment Record: (Starting with present position, list in reversed order, every employment
	held. List all positions held by staff member since graduation, giving dates, names of employing
	organization, title of positions held and location of assignments along with task performed in detail.
	For experience period of specific assignment must be clearly mentioned, also give client reference,
	where appropriate).
9.	A) Education:
	i. Graduation and Year
	ii. Post-graduation and year
	iii. Any other specific qualification
	B) Experience
	i. Total experience in Buildings: Yrs
	ii. Responsibilities held: Yrs
	iii. Relevant Experience: Yrs
	C) Permanent Employment with the Firm (Yes/No):
	If yes, how many years:
	If no, what is the employment:
	Arrangement with the firm?
10.	Detailed Tasks Assigned: (List all tasks to be performed under this Assignment/Job)
Cor	tification:
CCI	1. I am willing to work on the project and I will be available for entire duration of the project
	assignment and I will not engage myself in any other assignment during the currency of his
	assignment on the project.
	2. I, the undersigned, certify that to the best of my knowledge and belief, this biodata correctly
	describes myself, my qualification and my experience.
Sign	nature of the Candidate
Plac	ee
Date	e
	nature of the Authorized Representative of the firm
	ee
Date	e

Note: Each page of the CV shall be signed in ink by both the staff member and the Authorized Representative of the firm only scan copy from original document is to be submitted, photocopies

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P	a	g	e	64

will not be considered for evaluation. Experience certificate from the previous employers should be enclosed wherever necessary.

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Annexure-VI

Financial Statement

Particulars	Financial Year		
	2018-19	2019-20	2020-21
a) Gross Annual Turnover on			
construction work Rupees (In Lakhs)			
b) Profit / Loss Rupees (In Lakhs)			
c) Certified By			

Annual turnover certificates & audited balance sheets for last 3 financial years to be attached duly signed and verified by Chartered Accountant.

Name and Address of Chartered Accountant:

Annexure-VII

Litigation History

Sr. No	Case Particulars	Date of Filing	Case Outcome / Present Status
110		rining	1 resent Status
		_	

APPENDIX A

GOOGLE EARTH LOCATION & SITE PLAN

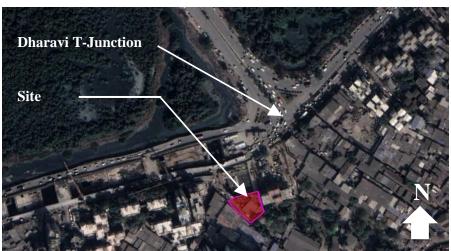


Figure 1: Key Map- Dharavi T Junction

Latitude: 19° 2'45.60"N Longitude: 72°51'4.96"E

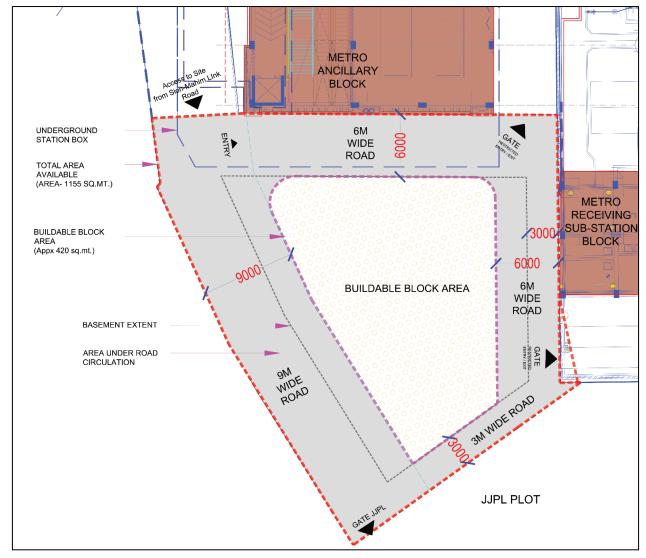


Figure 2: Site Layout with internal Circulation

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APPENDIX B

AREA STATEMENT

Sr. No.	Particulars	Details	Units
1	CTS No.	343, 1/345, 1/346, Dharavi Division, G/N	
2	Plot Area	4,805	sq.m.
3	Metro Uses	Metro Station Entry Exit, Ancillary Building and Receiving Sub Station	
4	Plot available for Staff Quarters development	1155	sq.m.
5	Approx. area under circulation for Metro Structures	735	sq.m.
6	Approx. buildable area	420	sq.m.
77	Approx. total buildable built-up Area	8,380	sq.m.
8	Parking (Approx.)	83	Parking bays
9	Approx. Building Height*	70	m

^{*} Proposed Development to be within the Aviation permissible building height

Note: The figures and buildings shown in this statement are tentative and subject to change.

Check list of Documents

The bids shall be accompanied with the followings:

	1) Document Fee (Rs 10,000/- + GST)	Yes/ No
Envelope A	i) Copy of Work Orders/ Self-certification	Yes/ No
TECHNICAL PROPOSAL	ii) List of similar works completed in last five years (Annexure II)	Yes/ No
	iii) List of similar works in Hand (Annexure III)	Yes/ No
	iv) Key personnel and Sub Consultants-Resume of Team members with supporting documents – (Annexure IV and Annexure V)	Yes/ No
	v) Undertaking that the firm/Institution is not blacklisted by any Government or its agencies including Central/ state level Public Enterprises	Yes/ No
	vi) Undertaking regarding Non-Disclosure/sharing of confidential information with third parties.	Yes/ No
	vii) Annual Turnover Certificates & audited balance sheet for last 3 financial years (Yr. 2018-19, Yr. 2019-20, Yr. 2020-21) –(Annexure VI)	Yes/ No
	viii) Certificate of incorporation, PAN Number, GSTIN details & MSME Registration details (if any)	Yes/ No
	ix) Letter declaring offer to be unconditional, confirming its validity for 120 days.	Yes/ No
	x) Litigation history (Annexure VII)	Yes/ No
	xi) Copy of valid Partnership deed / JV/ Consortium / MOU, if any	Yes/ No
	xii) Authority letter clearly mentioning details of authorized representative	Yes/ No
	xiii) Description in brief about Organisation, Organisational structure, Understanding of Scope of Services, Approach, Methodology and Work Plan/ Activity Schedule for Performing the Assignment (max 10 pages)	Yes/ No
Envelope B FINANCIAL	1) Financial Proposal- Standard form	Yes/ No
PROPOSAL	Annexure I- Proforma of Lumpsum Fees (Only to be submitted with Financial proposal)	Yes/ No