



**AGREEMENT WITH ARCHITECT CONSULTANT FOR PROVIDING
PROJECT MANAGEMENT CONSULTANCY SERVICES INCLUDING
CONSTRUCTION MANAGEMENT, CONSTRUCTION SUPERVISION &
QUALITY CONTROL INCLUDING COORDINATION WITH MHADA IN
PROJECT IMPLEMENTATION PROCESS FOR REDEVELOPMENT
PROJECT OF BOMBAY DEVELOPMENT DEPARTMENT (BDD)
CHAWLS ON CTS NO. 101,102, 2A/102, 4/102, 103, 3/104, 105, N.
M. JOSHI MARG, LOWER PAREL, MUMBAI : 400 013**

PART B



CHALLAN
MTR Form Number-6

GRN	MH001111102201718E	BARCODE			Date	06/05/2017-11:35:41		Form ID	25.2		
Department					Inspector General Of Registration						
Stamp Duty					Payer Details						
Type of Payment					Stamp Duty						
					TAX ID (If Any)						
					PAN No.(If Applicable)		AANPT9807H				
Office Name					BOM2_JT SUB REGISTRA MUMBAI CITY 2		Full Name		LAXMAN THITE ARCHITECT		
Location					MUMBAI						
Year					2017-2018 One Time		Flat/Block No.		B D D CHAWL CTS NO 101 102 2A 102 4 102 103		
							Premises/Building		3 104 AND 105		
Account Head Details					Amount In Rs.						
0030045501 Sale of NonJudicial Stamp					243000.00		Road/Street		N M JOSHI MARG LOWER PAREL MUMBAI		
							Area/Locality		LOWER PAREL		
							Town/City/District				
							PIN		4 0 0 0 1 3		
							Remarks (If Any)				
							PAN2=AAAZM0344H-SecondPartyName=MAHARASHTRA HOUSING				
							AND AREA DEVELOPMENT AUTHORITY-CA=243000000				
Total					2,43,000.00		Amount In		Two Lakh Forty Three Thousand Rupees Only		
							Words				
Payment Details					IDBI BANK		FOR USE IN RECEIVING BANK				
Cheque-DD Details					Bank CIN		Ref. No.		69103332017050610914 122751287		
Cheque/DD No.					Date		06/05/2017-11:35:57				
Name of Bank					Bank-Branch		IDBI BANK				
Name of Branch					Scroll No. , Date		Not Verified with Scroll				

NOTE:-Valid for document to be registered in Sub Registrar office and not for unregistered document. Mobile No. : 8408890899
सदर चलन केवल दुस्यम निबंधक कार्यालयात नोंदणी करावयाच्या दस्तांसाठी लागू आहे. नोंदणी न करावयाच्या दस्तांसाठी सदर चलन लागू नाही.



AGREEMENT

BETWEEN

MUMBAI HOUSING & AREA DEVELOPMENT BOARD

**(A REGIONAL UNIT OF MAHARASHTRA HOUSING & AREA
DEVELOPMENT AUTHORITY)**

AND

**PROJECT MANAGEMENT CONSULTANT
LAXMAN THITE ARCHITECT**

FOR

**PROVIDING PROJECT MANAGEMENT CONSULTANCY
SERVICES INCLUDING CONSTRUCTION MANAGEMENT,
CONSTRUCTION SUPERVISION & QUALITY CONTROL
INCLUDING COORDINATION WITH MHADA IN PROJECT
IMPLEMENTATION PROCESS FOR REDEVELOPMENT
PROJECT OF BOMBAY DEVELOPMENT DEPARTMENT
(BDD) CHAWLS ON CTS NO. 101,102, 2A/102, 4/102, 103,
3/104, 105, N. M. JOSHI MARG, LOWER PAREL,
MUMBAI : 400 013**

AGREEMENT

This AGREEMENT is made on this _____ day of May, 2017 between the Chief Officer, Mumbai Housing and Area Development Board on behalf of Maharashtra Housing & Area Development Authority) (hereinafter called to as the "Client" / "Employer") which expression shall where the context so admits, includes his successors in office and assigns on the one part,

And

Project Management Consultant, Laxman Thite Architect (hereinafter called the "Consultants" or "Engineer") which expression shall where the context so admits, includes his successors in office and assigns on the other part.

WHEREAS

- (a) The Client has been appointed as "Nodal Agency" vide Housing Dept. / Govt. of Maharashtra's Govt. Resolution dated 30/03/2016 for Redevelopment project of BDD Chawls at Naigaon, N.M. Joshi Marg and other two sites for implementation of project for construction of Rehabilitation buildings, Sale buildings, onsite & off site infrastructural services such as Sewerage system, Roads, Water Supply, Landscaping etc.as per approved Master Plans of project/s.
- (b) The Client intends to carry out a Redevelopment project of BDD chawls on CTS nos. 101,102, 2A/102, 4/102, 103, 3/104, 105, N M Joshi Marg, Lower Parel, Mumbai : 400 013, as defined (hereinafter called the "Project")
- (c) The Client had called for Design Competition from the Consultants among others and had asked for quotation for Project Management Consulting services required for the Redevelopment Project of BDD Chawls at N M Joshi Marg. Whereas the Client as defined in the General Conditions of agreement attached to this agreement (hereinafter called the "Services")
- (d) The Consultants, having represented to the Client that they have the required professional skills, personnel and technical resources, have agreed to provide the Services on the terms and conditions set forth in the Agreement and based on which it has been agreed by the Client to appoint the Consultants for the Services. The works and services shall be subject to the guidelines of the Project.

NOW THEREFORE the Parties hereto hereby agree as follows: -

This agreement has been divided into three Sections as below, apart from Definitions / List of Abbreviations and Annexure :

SECTION 1. PROJECT INFORMATION

SECTION 2. SCOPE OF SERVICES

SECTION 3. TERMS & CONDITIONS

The following documents attached hereto shall be deemed to form an integral part of this agreement:

- (a) Section 1 to 3 and Annexure I to III
- (b) Volume I to IV issued to the Contractor
- (c) Definitions / List of Abbreviations
- (d) The works and services shall be subject to the guidelines of the Project.

The mutual rights and obligations of the Client and the Consultants shall be set forth in the agreement; in particular:

- (a) The consultant shall carry out the services in accordance with the provisions of the agreement; and
- (b) The Client shall make payments to the consultant in accordance with the provisions of the agreement.

IN WITNESS whereof the signature of Shri. Subhash Lakhe, the Chief Officer of Mumbai Board, a Regional Unit of Maharashtra Housing & Area Development Authority, for and on behalf of the Authority has been set hereunder and the seal of the Authority has also been affixed and attested by the member of the Authority and the signature of Laxman Thite Architect, the Architect Consultant.

Laxman Thite Architect, and seal of the Architect Consultant has been affixed here under the day and year first above written.



For M.H. & A.D. Authority

Signed sealed and delivered by Shri Subhash Digambar Lakhe
Chief Officer of the Mumbai Housing and Area Development Board in the Presence of Shri Siddheshwar S. Konnur
Executive Engineer (PPD) / MHADB

[Signature]
Chief Officer Mumbai Housing & Area Development Board
Chief Officer of Mumbai Housing and Area Development Board for the Authority.



The common seal of the Maharashtra and Area Development Authority is affixed herein to in the Presence of Shri Siddheshwar Saibanna Konnur

Executive Engineer (PPD) / MHADB of the Mumbai Housing & Area Development Board, Mumbai who has signed in token thereof in the presence of Smt. Alka Mayur Bhivandkar

Architect - Planner / MHADB of the Mumbai Housing & Area Development Board

[Signature]
Executive Engineer (PPD) / MHADB of the Mumbai Housing & Area Development Board

Anubhavanker
Architect - Planner / MHADB of the Mumbai Housing & Area Development Board



[Signature]
(MINDOR. VASANT KULKAR)

For the firm of the Architect Consultant

Signed sealed and delivered by LAXMAN THITE ARCHITECT
In the presence of MR. SUHAS BHIKU SONDE

The common seal of the said firm is affixed here to in the presence of MR. SUHAS BHIKU SONDE of LAXMAN THITE ARCHITECTS.

[Signature]

DEFINITIONS / LIST OF ABBREVIATIONS

1	Consultant / Engineer	The firm selected for the Project Management Consultancy (PMC) Services including Construction Management, Construction Supervision & Quality Control Process including Coordination with MHADA in Project Implementation for Redevelopment Project of Bombay Development Department (BDD) Chawls on CTS nos. 101,102, 2A/102, 4/102, 103, 3/104, 105, N M Joshi Marg, Lower Parel, Mumbai : 400 013
2	Client / Employer	Mumbai Housing and Area Development Board (A Regional unit of Maharashtra Housing and Area Development Authority)
3	MHADA	Maharashtra Housing and Area Development Authority
4	MHADB	Mumbai Housing and Area Development Board (A Regional unit of Maharashtra Housing and Area Development Authority)
5	Engineer-in-charge	Dy. Chief Engineer, MHADB
6	GOM	Government of Maharashtra
7	Service	Means the work to be performed by Consultant selected for Consultant, pursuant to the contract agreement for the purpose of this project
8	ULB	Urban Local Body
9	DCR	DCR 33(9) (B) applicable for subject plots.
10	On Site Infrastructure	The work of water supply system, sewerage system, Roads, S.W Drains, Landscaping, Solar energy, Rainwater Harvesting and any other relevant works at site.
11	Off Site Infrastructure	Water supply system, sewerage system and any other relevant works at site.
12	DLP Period	Defect liability period as explained in Contract documents of Contractor

SECTION 1. PROJECT INFORMATION

1. INTRODUCTION

1.1. Background of BDD Chawl:

The Bombay Development Department (BDD) was set up in 1920 by the then Governor of the province, Sir George Lloyd who was appointed by the British Government of India. Lloyd believed that the housing problem contributed to the political unrest in the city. He designed a massive scheme for housing and development and decided to undertake the same on behalf of the government rather than entrusting it to the Bombay Improvement Trust (BIT) or the Corporation. A civil servant was appointed by him to oversee the execution of the scheme. The department was financed through a development loan and a one rupee town duty was levied on each bale of cotton entering the city. Plots of land for BDD chawls at Worli, Naigaon and N.M. Joshi Marg were acquired through purchase. The plot of land at Worli is 22.14 Ha, Naigaon is 6.45 Ha, N.M. Joshi Marg is 5.46 Ha.

The construction of 207 Chawl buildings, each with 80 rooms, was completed between 1921 and 1925.

The chart below shows the number of buildings at N. M. Joshi Marg:

Sr. no.	Location of BDD chawls	Nos. of existing Chawls (Buildings)	Nos. of floors	Carpet area of each tenement in Sq.ft.	Approx. Nos. of tenements in Chawls as per PWD records [Residential (R) & Non-Residential (NR)]
1	N. M. Joshi Marg - Lower Parel	32	Ground + 3	160	2456 (R) 24 (NR) 19 (Stalls) 80 (Hospital)

All the BDD Chawl structures are located in the heart of the island city of Mumbai and are more than 90 years old. These Chawls have completed their life cycle. External infrastructure provided to the buildings, such as, water supply, sewage and storm water drainage has deteriorated and is in need of urgent replacement. The overall condition of BDD Chawl buildings is deteriorating and they may not sustain very long under the present condition. The maintenance of the buildings is not adequate and is getting expensive with each year. The rent charged is extremely low. Therefore, major repairs through PWD could not be done. The land value of the locality has appreciated phenomenally in the last 80 years. Therefore, the current use of land cannot be termed as efficient and optimum.

1.2. Initiative of Government to develop BDD Chawl

In the light of the above observations, Government of Maharashtra has decided for redevelopment of the BDD Chawls as mentioned above.

Government of Maharashtra has appointed Maharashtra Housing and Area Development Authority (hereinafter referred as "MHADA" or "Authority" or "Employer") as a Nodal agency & Planning Authority under its Govt. Resolution No. VVCha-2007/Pr.Kr. 51 (Bhag -1) / GruNiPa dated 30/03/2016. MHADA is declared as Planning Authority vide Urban Dev. Dept. / GOM's notification dated 19/10/16 for BDD Chawl projects at Worli, Naigaon and N. M. Joshi Marg, Mumbai. for redevelopment of these chawls under DC Regulation 33(9)B sanctioned under notification No. TPB 4316/400/CR-104/2016/UD-11 dated 27th December 2016.

MHADA is the Nodal agency and Planning Authority for the redevelopment of the BDD Chawl at N. M. Joshi Marg, as part of this endeavour, the Authority has decided to select Project Management Consultant (the "PMC") for providing Project Management Consultancy Services including construction supervision for Redevelopment Project of Bombay Development Department (BDD) Chawls at N. M. Joshi Marg (the "Project"). Expected construction period is 7 years. PMC consultants and the team is expected to work for period of 7 years and additionally till the end of defect liability period. In case of any extension given to the Contractor, no additional payment will be made.

MHADA has already invited Global Tenders for both projects at N. M. Joshi Marg and construction work will be undertaken in diff. phases, as mentioned in this document.

1.3. Objects of the Project

The broad objects of the Project are Project Supervision, quality assurance for construction of the Redevelopment of BDD Chawls including all civil and infrastructure works like internal roads, water supply, drainage and electrical works like street light, landscaping, gardening, lifts, electric sub-stations, water pumps etc. and all other connected infrastructural development works etc to complete the project & other facilities required in all aspects.

A. Projects Details

1.3.1. Project details is as under:

N.M. Joshi Marg BDD Chawl Project

For N.M. Joshi Marg project the details of construction area is as below:

1.3.2. **N.M. Joshi Road BDD Chawl Project**

For NM Joshi Road project the details of construction area is as below:

Building Structures

Project construction requirements of various structures is as below:

Building type	Number of building & Nomenclature	Flats /Shops
Redevelopm ent	For residential: 14 Nos of rehab wings with 22 habitable floors. Commercial shops on ground floor 3 Basement + 1 ground + 1 podium level parking.	Residential 2456 flats Shops - 24 nos. and stalls 19

Designation and Amenity	Hospital : 10 Habitable floors (included in rehab cluster) Primary School: 7 habitable floors (included in rehab cluster) Government Office : 2 habitable floors (included in commercial building)	
Sale	For residential: 2 HIG buildings having 47 habitable floors. 3 basement + 1 ground + 7 podium parking levels. 2 MIG buildings having 47 habitable floors. 3 basement + 1 ground + 7 podium parking levels. For commercial: Commercial building with 14 floors having shops and offices. 3 basement + 1 ground + 5 podium parking levels.	MIG 728 flats + HIG 540 flats Total sale flats 1268 nos. Offices: 28850 sq.mt.

Note: - Construction scope also includes rehabilitation of existing structures of various Government Departments such as Public Works Department, Labour Welfare Board, Samaj mandir, etc. and also, rehabilitation of existing eligible stalls / huts / unauthorized structures on BDD layout land including relocation/reconstruction of existing eligible Religious structures.

Approximate area

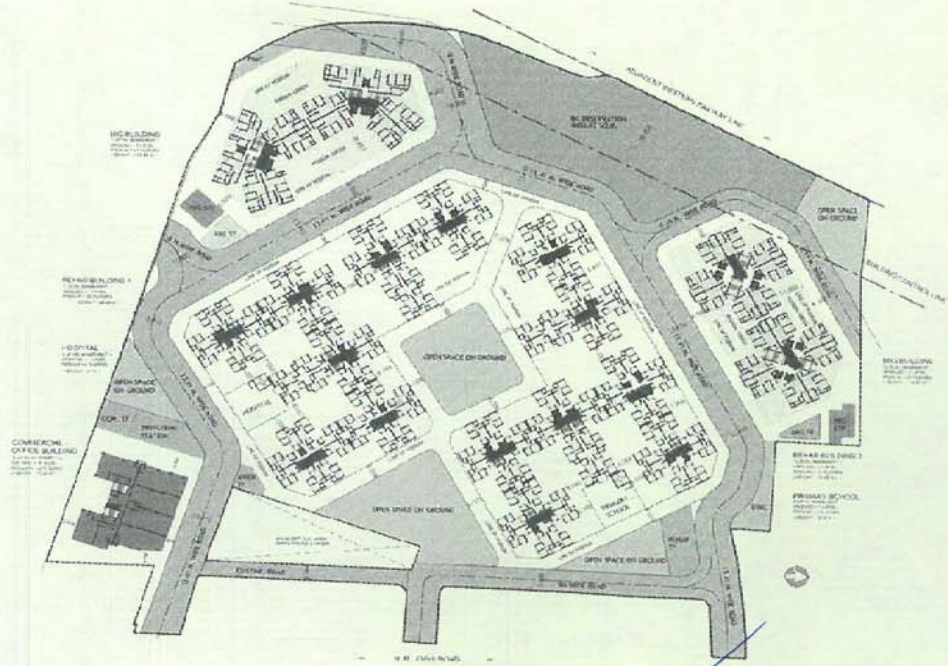
Sr. No.	Description	Area (Sq. mt.)
1.	Total Plot Area	Approx. 5.46 Ha.
2.	Total Construction Built-up Area (FSI + NON FSI)	250,138 Sq.mt. for rehab and 265,734 Sq.mt. for sale.

Gross Construction Area for N.M. Joshi Road shall mean and include following:

	Construction Area in Sq.mt.		
	Rehab	Sale	Total
Residential	180,316.52	161,042.20	341,358.72
Commercial	948.42	16,857.43	17,805.85
Sub-total	181,264.94	177,899.63	359,164.57
Parking - substructure	37,262.57	25,441.53	62,704.11
Parking - superstructure	24,841.72	59,363.58	84,205.29
Designations	3,846.28		3,846.28
Amenities	450.79	402.60	853.39
Services	2,472.16	2,627.05	5,099.21
Gross Construction Area			515,872.85

Note: - Construction scope also includes rehabilitation of existing structures of various Government Departments such as Public Works Department, Labour Welfare Board, Samaj mandir, etc. and also, rehabilitation of existing eligible stalls / huts / unauthorized structures on BDD layout land including relocation/reconstruction of existing eligible Religious structures.

Master Plan for NM Joshi project is as below:



*Area in Sq.mt.

No	Details	Phase 1		Phase 2		Phase 3		
		Rehab		Rehab	Sale Residential MIG	Rehab	Sale Residential HIG	Sale Commercial
1	Construction area computation							
a	Construction area of buildings	66,387.57		90,158.25	83,560.28	23,770.70	77,481.92	16,857.43
b	Construction areas of parking	22,180.10		31,052.14	36,292.62	8,872.04	38,997.24	9,515.25
c	Construction areas of commercial	384.54		563.88	0.00	0.00	0.00	0.00
d	Construction areas of Designations	1,784.14		0.00	0.00	2,062.14	0.00	0.00
e	Construction areas of Additional Amenities	161.00		225.40	208.90	64.40	193.70	0.00
f	Services	882.91		1,236.07	1,198.53	353.16	1,164.79	263.73

The Project Management Consultant shall be responsible for Monitoring, Planning, Progress Reviewing and Co-ordination with appointed Contractor.

SECTION 2. SCOPE OF SERVICES (Explained in detail in Annexure I)

This proposal is for Laxman Thite Architect to provide Project Management Consultancy Services includes Construction Management, Construction Supervision including Coordination to Maharashtra Housing and Area Development Authority (MHADA) for Redevelopment of B.D.D. Chawl at N.M.Joshi Marg, Mumbai.

The **Scope of Services** includes;

1) Project Management Services

Project Management consultancy services related to;

- Supervision of Construction works and Development works.
- Quality Control of works
- Financial management of project
- Infrastructure developments
- Landscape related works
- MEP related works

Scope of Project Management Services are more specifically defined in the Annexure - I.

1.1 General Scope of Work :

Description of the Services & Deliverables by the Project Management Consultancy to be delivered:

- (i) Submission of Financial feasibility of project based on approved master plan.
- (ii) Construction Supervision work:
Project Management Consultancy will supervise the execution of the works in the said project, so as to ensure that all work is carried out with Best Quality and also, in accordance with the tender / contract specifications and construction drawings and as per prevailing IS codes. Project Management Consultancy will maintain check lists for the major items of work which record the observations made during each inspection. Any deviations made from accepted specifications and drawing during constructions will be recorded. For the site supervision works, Project Management Consultancy will provide adequate number of qualified technical staff of different categories, as required at various stages of construction period as mentioned in Annexure III.
- (iii) Construction Material:
Project Management Consultancy will ensure that all the materials to be used in the works are tested as per the requirements given in the specifications, specifically mentioned in volume III of Tender Document of Selected Bidder / Contractor. Consultant / Engineer shall ensure during execution of works that material testing is carried out in MHADA laboratory and Site Laboratory in proportion of 20% : 80 : respectively as per MHADA Norms issued vide the Dy. Chief Engineer (Vigilance & Quality Control) / MHADA's circular no. 1242 dated 21/10/2016 and as per prevailing IS codes ; prior to actual execution of works.
- (iv) Labour, Machinery and Equipment requirement:
Project Management Consultancy will monitor the adequacy of executing Agency's site establishment in respect of technical and supervisory staff, labour.

force, machinery and equipment, material procurement, etc., in order to complete the works as per time schedule.

- (v) **Monitoring progress:**
Project Management Consultancy will monitor the progress of various works at site, prepare physical progress reports and suggest ways and means of achieving the target progress of works.
- (vi) **Progressing Report:**
Project Management Consultancy will submit monthly progress reports reviewing work done since the last report, and all outstanding problems that are likely to affect either cost or time to completion of the project.
- (vii) **Records:**
Project Management Consultancy will maintain records of all the meetings that take place at site. Project Management Consultancy will also maintain a Site Order Book which records all the instructions given to the Contractor by the MHADB / MHADA officials and Project Management Consultancy during their site visits. MHADA site register in prescribed format will be maintained upto date on site during execution of works.
- (viii) **Enabling assistance during intensive examinations by Govt. / MHADA officials.**
During site inspection works by MHADA / Govt. / any other Authority permitted by MHADA to inspect, all necessary coordination and assisting work shall be carried out by Consultant / Engineer.
- (ix) **Site visits of Govt. / MHADA / Consultants:**
Project Management Consultancy will co-ordinate site visits by Govt. / MHADA officials and various other Consultants as and when required in order to clarify the details given in the drawings and specifications.
- (x) **Defects:**
In case any defects are found in the work carried out by the Contractor, Project Management Consultancy will record them in a Defects Register and ensure that the Contractor rectifies these defects immediately and will be reported.
- (xi) **Post Construction Stage:**
Project Management Consultancy's essential work in this phase will be assembling of all drawings and essential documentation to be preserved for achieves, so that all information pertaining to the construction is available for subsequent examination at the time of undertaking any future modification or repair.

1.2 Deliverables by the Project Management Consultancy:

- a. Project Management Consultancy shall call for meeting with MHADB/MHADA officials and contractor to monitor progress and to discuss difficulties and solutions. Project Management Consultancy shall draw minutes of the meeting and monitor defect correction and decisions taken during the meeting for remedial action. Regular progress Review meetings shall be conducted.
- b. Project Management Consultancy shall be required during construction phase to provide the day-to-day supervision and monitoring PMC appointed by MHADA.

- c. Project Management Consultancy will act as Project Management Consultancy / technical representative of MHADA / MHADB.
- d. The Project Management Consultancy shall exercise powers and authority as well as perform duly, all the duties, liabilities, functions and obligations as defined in the Agreement between the MHADB / MHADA and the Contractor for the work.
- e. The Project Management Consultancy shall be required, during the construction phase to provide the day-to-day field supervision and sufficient technical assistance (staff) for check on quality control of the work at site. Competent technical staff required to be deployed by the Project Management Consultancy at all levels shall be got approved before commencement of work. The Project Management Consultancy shall furnish bio-data of his technical staff. Project Management Consultancy shall submit weekly or fortnightly progress report as per the directions of the MHADB / MHADA, submit recommendations of extra items including recommendations of extension applications, extra items, variation statements, quality control check for final bills, etc., on the forms prescribed or approved by the MHADB / MHADA.
- f. Ensure proper establishment of field laboratories by the Contractors to conduct laboratory tests on materials for construction such as cement, steel, bricks, etc. Project Management Consultancy shall arrange to have field and laboratory tests carried out on materials of constructions as well as partially or completely erected structures etc., and maintain adequate records thereof. Suggesting modifications, if any, due to site conditions and advising regarding cost variations, on account of extra items and excesses. List of Mandatory Testing of Materials. Project Management Consultancy shall ensure that those of all contractors, subcontractors and suppliers employed on the Project comply in full with these objectives and priorities and as specified in the specifications.
- g. Ensure close co-ordination with MHADB / MHADA and any other concerned professionals appointed directly by the MHADB / MHADA regarding modifications in designs, if any, as also for regular and timely flow of working drawings / instructions.
- h. The Project Management Consultancy shall ensure that all observations made during the periodic visits by the officials of MHADA / MHADB / his Engineers about the quality of the work are attended to by the Contractors.
- i. Periodic administration and management of contract during Defects Liability Period, however no supervisory staff will be provided for defect liability period.
- j. Preparation / submission of two sets of 'As-built' drawings for the work and the services on reproducible paper and certifying the same.
- k. Verification of work on completion and issue of completion and issue of completion certificate: The Project Management Consultancy will prepare this certificate and furnish the same to the MHADB / MHADA.
- l. Reporting the Qty. of variations in the items likely well in advance obtaining approval for extra, items.

- m. Advising the MHADB / MHADA with regard to extra claims / disputes, if any and work in hand with MHADB / MHADA till the expiry of the Defects Liability period.
- n. The Project Management Consultancy shall be liable to MHADA for the performance of services in accordance with the provision of this contract and for loss suffered by MHADA as a result of default of the Project Management Consultancy in such performance.
- o. Inspecting the completed works ready for handing over, preparing defect list and got it done.

THE SERVICES ARE BROADLY DIVIDED IN THE FOLLOWING PHASES

1.3 Survey Report

- a. Project Strategy - Based on the Site Survey and Geo Technical investigations.
- b. Work with MHADA teams, their stakeholders and business leaders to arrive at the best strategy to complete the project, in stipulated time budget & of desired quality.

Deliverables:

- Co-ordinate Site Survey & Geo Technical survey
- Strategy Report indicating the effect on schedule on cost, if any

1.4 Project Initiation

- a. Project Programming
Prepare a Preliminary Project Schedule that is in sync with MHADA brief.
- b. Project Budget
Establish a Concept budget target on the basis of adopted project strategy and taking into account work breakdown structure. However, the detailed budget estimate shall be prepared by the Engineering Consultants.

Deliverables:


- Co-ordinate Site Survey & Geo Technical survey
- Project report with Architectural plans, Salient features, cost estimate, cash flow & project work plan

1.5 Design Stage

Design Review

Review the information developed by the Contractors / Architect Consultant with respect to design criteria and the project brief. Review drawings throughout the design period for adherence to MHADA requirements and review economies consistent with these requirements, budget constraints and sound construction practices.

1.6 Work Breakdown procurement and package configuration

In consultation with the project team, recommend to MHADA the most cost efficient and expeditious work breakdown structure. 

1.7 Review the BOQ and Cost Estimate submitted by Architect Consultant

Deliverables:

- Work breakdown procurement
- Cost estimate stagewise
- Project work plan with milestones.

1.8 Execution Stage

- a. Facilitate the mobilization of contractor on site.
- b. Construction Scheduling
Prepare and regularly update the Master time schedule for all project activities. This is done after obtaining inputs from the contractors and is updated during the procurement and construction periods in accordance with each contractor's schedule. Administer Master Schedule throughout the project.
- c. Construction Management
Construction Management provides for the detailed supervision, inter-relationship, co-ordination of the project during site construction.
- d. Submittal Process
Monitor and review contractors' material procurement schedule and submittal logs for completeness, quality and compliance and maintain the MIS.
- e. Site logistics
Overview of the site logistics services provided by the general contractor including access, storage, movement of men, material and construction vehicles etc, site security and EHS standards.
- f. Construction Cost Management
Overview the established cost reporting and coding structure based on MHADA's requirements. Administer and monitor the budget throughout the project. Periodically, provide MHADA with information on the financial status of the project, actual cost against cost plan, cash flow analyses and forecasts, and impact of change orders. Forecast anticipated cost needed to complete the project.
- g. Bill Certification
Certify the bills submitted by the contractors for payments as per the established milestones.
- h. Quality Assurance & Quality Control
Obtain method statements for the critical activity / item to be executed by the contractors. The Consultant will thereafter overview the quality management system in accordance with the specifications and the method statement.
- i. EHS / Housekeeping
Ensure implementation of contractual provisions regarding safe construction practices. Review and monitor compliance of contractors methodology with all provisions of MHADA.
- j. Communication
Set up communication protocol between the various contractors, the Architect Consultant, other consultants, contractor and MHADA.

Deliverables:

- SOP & Safety manual
- Monthly tracked cash flow / bill certification / payments
- Minutes of Meetings
- Monthly progress report that has executive summary of work done, bill raised, payments made, areas of concern, look ahead, etc

- Site instruction register
- Payment certificates
- Obtain sign off on variances in cost & specification.
- Quarterly change order summary
- Quarterly quality reports
- Quarterly revised cash flow projection

k. Final Completion

(i) Punch List De-snagging

In conjunction with the Architect / Engineering Consultants / MHADA, the Consultant will commence documenting the snags / defects observed in the facility approximately two / three weeks before the completion of the work in the respective phase wise & co-ordinate the rectification.

(ii) Facility Commissioning

With the appropriate Engineering Consultants / MHADA, establish procedures and manage the testing & commissioning of all MEP services. Monitor commissioning and handover of the project areas to the MHADA's facilities management team.

(iii) Financial Close-out

The Consultant will solicit the contractors' final invoices, check and certify them and issue final payment certificates.

Deliverables:

- Submit as built drawings as received from contractors
- Test Reports
- Financial Closure Statement
- Guarantees / Warranties
- Contract details & Information of main & sub trade vendors.

l. DLP Period

Deliverables:

- Periodic administration and management of contract.

SECTION 3. TERM & CONDITIONS

3.1 Professional Fees : - To be read in conjunction with section 2 & 3 of this agreement

Client Name : Mumbai Housing and Area Development Board (a Regional unit of Maharashtra Housing and Area Development Authority)

Project : Redevelopment of BDD Chawls

Location : N.M. Joshi Marg, Mumbai

Services : Providing Project Management Consultancy Services including Construction Management, Construction Supervision & Quality Control including Coordination with MHADA in Project Implementation Process for Redevelopment Project of Bombay Development Department (BDD) Chawls.

3.2 Professional Fees :

Professional fees charged will be at **1% (One Percent Only)** on actual project's construction cost (without any escalation).

Note :

- **Actual Project's construction Cost** shall be based on payments released to Contractor for diff. works (excluding escalation paid to contractor) Fees will be payable at 1% of contract value / project's construction cost paid to Contractor and payment schedule / cycle will be based on payments made to Contractor.
- No escalation shall be payable to Consultant / Engineer.
- No fees will be payable to Consultant / Engineer on Escalation payments released to Contractor.
- Above mentioned professional fees is inclusive of all taxes.
- No fees shall be paid on mobilisation advance paid to contractor.
- Retention money at 5% of payments, released to Consultant / Engineer at various stages, shall be deducted by MHADA and will be released as mentioned below.
 - 2 years after completion of project : 2%
 - 4 years after completion of project : 2%
 - 5 years after completion of project : 1%
- The fees are for entire project period till it's completion and handing over process.
- Fees to be paid under this agreement will be paid within 30 days from submission of bill by Consultant / Engineer to MHADA.

Note :

- For the tenure of the DLP period , a Bank Guarantee of 5% (Retention money amount) will be handed over to MHADA, against the release of DLP/ Retention money amount payment.
- Based on MHADAs requirement and approval, if the Consultant is required to travel away from Mumbai / Pune to a designated place within India for any special construction technology / material for the project, the travel expenses

will be borne by the MHADA on actuals, including Railway fare (first class), local transport, lodging and boarding for each of Consultant's representative.

The **mode of payment** of "Professional Fees" shall be in accordance with payments released to Contractor for diff. works during project period (excluding escalation paid to contractor) :

Sr. No.	Stages	Fees Payable
1.	On execution of this agreement as an Advance / retainer (Advance paid shall be recovered from PMC's bills at fixed interest 8% per Annum in proportionate instalments)	1% (On net fees payable to PMC @ 1 % of tendered construction Cost of selected bidder)
2.	On release of payments to contractor (excluding escalation) (advance to be reduced from each payment)	1% (on bill amount released to Contractor)

3. MHADA shall make an advance payment, as an interest bearing loan for mobilisation and cash flow support, when the Engineer / PMC Consultants submit a guarantee equivalent to 110% of such Advance Payment. The Engineer / PMC Consultants shall ensure that the guarantee is valid and enforceable until the advance payment has been repaid along with interest at the rate of 8% per annum, but its amount shall be progressively reduced by the amount repaid by the Engineer / PMC Consultants.

Total advance payment to the Engineer/PMC Consultant shall be 1% of net fees payable to PMC @ 1% of tendered construction Cost of selected bidder (Contract Amount), which shall be released in 2 parts as mentioned below:

- 0.5% after signing of the Agreement with selected bidder and
- Balance 0.5% shall be after shifting of the occupants to transit camp and demolition of such vacated structures in phase 1.

The advance payment shall be repaid through percentage deductions from every payment at amortization rate of 3.5% to the Engineer / PMC Consultant. Deductions shall commence when the total payment exceeds 30 percent (30%) of the Contract Amount and until such time as the advance payment has been repaid; provided that the advance payment shall be completely repaid prior to the time when 80 percent (80%) of the Contract Amount has been paid.

If the advance payment has not been repaid prior to project completion or prior to termination, the whole of the balance then outstanding shall immediately become due and shall be payable by the Engineer / PMC Consultant to MHADA and such amount will be recovered by forfeiture of bank guarantee of equivalent amount including any accumulated interest and damages.

3.3 Indemnity

The Consultant shall, subject to the provisions of the Agreement, indemnify the Authority for an amount not exceeding three times the value of the Agreement for any direct loss or damage that is caused due to any deficiency in services.

3.4 Proprietary data

All documents and other information provided by the Authority or submitted by the Contractor, Architect Consultants and PMC to the Authority shall remain or become the property of the Authority. Applicants and the Consultant, as the case may be, are to treat all information as strictly confidential. The Authority will not return any Proposal or any information related thereto. All information collected, analysed, processed or in whatever manner provided by the Consultant to the Authority in relation to the Consultancy shall be the property of the Authority.

3.5 Liquidated Damages and Penalties

Liquidated Damages

a) Liquidated Damages for error/variation

In case any error or variation is detected in the reports submitted by the Consultant / Engineer and such error or variation is the result of negligence or lack of due diligence on the part of the Consultant, the consequential damages thereof shall be quantified by the Authority in a reasonable manner and recovered from the Consultant by way of deemed liquidated damages, subject to a maximum Agreement Value.

b) Liquidated Damages for delay

In case of delay in completion of Services, liquidated damages not exceeding an amount equal to 0.2% (zero point two per cent) of the Agreement Value per day, subject to a maximum of 10% (ten per cent) of the Agreement Value will be imposed and shall be recovered. However, in case of delay due to reasons beyond the control of the Consultant, suitable extension of time shall be granted without any escalation or damages.

3.6 Encashment and appropriation of Retention money

The Authority shall have the right to invoke and appropriate the proceeds of the Retention money in whole or in part, without notice to the Consultant in the event of breach of this Agreement or for recovery of liquidated damages.

3.7 Penalty for deficiency in Services

In addition to the liquidated damages not amounting to penalty, warning may be issued to the Consultant for minor deficiencies on its part. In the case of significant deficiencies in Services causing adverse effect on the Project or on the reputation of the Authority, other penal action including debarring for a specified period may also be initiated as per policy of the Authority.

3.8 Consultant / Engineer shall go through volume I to IV of Tender document of project of Contractor and ensure it's compliance in this project implementation.

- 3.9** (i) Except where otherwise specified in the contract and subject to the power delegated to him by M.H.A.D.A. under the rules then in force, the decision of the Dy. Chief Engineer, shall be final, conclusive and binding on all parties at the contract upon all question relating to the meaning of provisions of contract agreement and instructions herein force mentioned and as to the satisfactory performance of Project Management Consultancy for this project, or as to any other question claim, right, matter or thing whatsoever, in any way arising out of or relating to the performance w.r.t. said project, contract design, drawings, specifications, estimates, instructions, orders or these conditions or otherwise

concerning the works or the execution or failure to execute the same whether arising during the progress of work, or after the completion or abandonment thereof.

- (ii) In case of dispute, even after decision of the Dy. Chief Engineer; the matter will be submitted to the Vice President & Chief Executive Officer, MHADA ; who after giving hearing to both parties of this agreement, shall pass Speaking Order within 30 days and the decision recorded in the speaking order shall be Final & binding on both parties of this agreement.

A handwritten signature in blue ink, appearing to be 'S. S. S.', with a large loop at the bottom.

ANNEXURE - I

TERMS OF REFERENCE (TOR)

The consultant will carry out a multi-stage exercise in close collaboration with MHADA, Contractor and the Architect Consultants. Without limiting the scope the PMC has to work in close liaison with the MHADA and will be responsible for the following tasks:

a. Mobilization of team

Consultants shall mobilise required team as stated in the RFP and submitted proposal and shall setup necessary site office in the space provided by the Contractor. As part of office following shall be provided:

- The Consultant, at its own cost procure install, operate, maintain office equipments such as computers / laptops, Printers (A-3 and A-4 size), A0 size colour plotters, A3 size colour scanners, Fax machine, UPS and other peripherals and all consumables as required for efficient discharge of duties.
- The Consultant shall procure latest versions of licensed Software including Windows, Auto Cad Civil 3D Civil & Electrical, MX-Roads, Microsoft Office, Microsoft Project or Primavera, E-Tap etc. and antivirus software for the project period.
- The Consultant shall procure and keep it activated, internet connection, telephone connections and mobile cell phones for the team members during the project period.
- The consultant shall procure, operate and maintain at its own cost necessary ample number of vehicles for the use of its members during the project period.

b. Review of Contractor's submissions

Consultants shall carry out review of

- design of the project
- Contractor's submission of various documents, including plans of development
- Assisting MHADA during process of educating and finalization of beneficiaries
- Shifting programme of the rehab tenements.
- Project construction programme.

c. Project Management

Consultants shall carry out following activities

- Handhold / support MHADA for supervision, cost control, scheduling, risk management, monitoring, auditing, reporting, and ensuring compliances and due diligences required for the project before start of construction;
- Planning, scheduling and monitoring of the project. Preparation of plan and monitoring with suitable software and update MHADA regularly on progress vis-à-vis planning.
- Ensure compliance of inspection notes of Architect Consultants or MHADA by the Contractor.
- Submit demolition methodologies and sequence of operations. Also, guide in recycling or reuse of demolished material. During demolition assess for probable

damage to the adjoining buildings and set methodologies for precautionary measures including traffic management near site under demolition.

- Assist MHADA in regular meetings with all stakeholders, contractors, and other government entities, etc., to discuss progress and issues related to implementation, and prepare minutes for recording and circulation;
- Establish all necessary records and the procedures of maintaining/ updating such records for the entire project.
 - test data and laboratory reports
 - plant and labour returns
 - day work records
 - payment records,
- Develop and implement procedure for timely payments to the contractors and monitor for compliance;
- Monitor implementation of mitigation measures for the project, and update the Plan as per requirement.
- Assist in working out project cash flows for MHADA
- Prepare bankable project report for getting finances and assist MHADA in financial closure and getting timely disbursement from banks.
- Assist MHADA in developing working out plan to get timely realization for sale component and workout sale schedule. Assist MHADA in fulfilling compliances with Government for initiating sale.
- Review of following from time to time:
 - design of the project
 - Contractor's submission of various documents, including plans of development
 - Progress Reports of the project
 - Project programme,
- Within the powers granted to the Consultant, administer the construction contract on behalf of the MHADA.
- Work closely with the MHADA, to assist him to carry out his obligations under the construction contract in order that the contractor is not hampered in any way in carrying out his duties.
- ensure that the contractor carries out the works in accordance with the construction contract and assist the contractor therewith, all to enable the contractor to fully carry out his obligations within the scheduled time for completion.
- to ensure good communication between all parties such that disputes do not arise and that any such disputes are settled reasonably and amicably and assist in any adjudication. ✓

- Keep accurate records of all site activities and operations and those required elsewhere for efficient works execution from the contractor and others under the construction contract, including but not restricted to
 - Correspondence between client, Consultant and contractor as well as between them and third parties.
 - Minutes of scheduled meetings
 - Daily, weekly and monthly report from the Engineer's representative and the site inspectors
 - Instructions, variation orders, approval forms, etc.
 - Level and survey books, including checks on setting out and completed work.
 - Work records, such as measurements, levels, dimensions, drawings and material delivery notes.

d. Supervision of construction

Team Leader along with the required members of the team shall visit atleast once in a week the site and give his comments to MHADA. Major work would include as below:

- Supervise the mobilization of the contractor, his staff, plant, equipment etc. and his provisions for storage and other operating areas, paying particular attention to land made available for the construction
- Provide the contractor with points, lines and levels of reference
- Check all construction materials arriving on site to ensure that they are in compliance with the lists of supplies submitted by the contractor and meet the requirements of the specification and the applicable standards' ensure that all materials handling and storage is in accordance with the manufacturers' recommendations.
- Advise to the contractor for safety measures & epidemics.
- Monitor and inspect the contractor's methods of construction for permanent and temporary works, including false work, checking of centering & scaffolding, reinforcement and supervision of concrete & other civil work, as well as materials and equipment installation, workmanship and other site operations in regard of compliance with the requirements of the specification, the applicable standards and the manufacturer's recommendations, with all due attention being given to adherence to safety codes, labor laws, either laws, bye-laws and regulations and avoidance of public nuisance.
- Prepare and Issue to the contractor from time to time, as and when necessary, such further specification and instructions as required under the construction contract to enable the contractor to complete his obligations under his contract in a timely manner.
- Direct and witness from time to time such tests regarding construction materials and workmanship as required under the construction contract to be executed by the contractor or elsewhere and instruct the contractor to undertake corrective action in case of non- compliance with the specification or the applicable standards.
- Supervise the contractor's detailed investigations and testing of existing facilities, if any, in regard of compliance with the plan of action and decide on the basis of

the results of the testing on whether the said facilities are sufficiently sound to be incorporated in the permanent works without adversely effecting later operation and functioning.

- In the event of technical problems arising on site, assist the contractor in overcoming them in the interest of the Client.
- Upon having obtained approval of the client, issue variation orders or order extension of time as required under the construction contract.
- Audit all quality parameters of the construction
 - Checking quality of material being used, its origin and likely issues
 - Check workmanship
 - Check whether appropriate IS codes have been followed
- Inspect, report and find methodology for resolution of any issues which is affecting work.
- Monitor the movement of Equipment on the site
- Monitoring progress of work and instruct methodologies to be adopted for timely completion
- Inspect the construction and assist in guiding any safety issues. Also inspect and reasoning of any accidents and assist in resolving safety issues.
- In case required, issue ordering suspension of any work
- Measurement of work completed
- Conducting tests as specified in the General Conditions of Contract before approval and payment
- Report utilities to be diverted
- Report on interfacing contracts, if any while connecting any infrastructure with MCGM infrastructure
- Site Supervision of construction
 - Ensuring setting up of field laboratories
 - Contractors internal test on materials, concrete, mortar etc.
 - Pipe line trenching, bedding
 - Lowering, laying and welding & jointing
 - Installation of specials fittings.
 - Orientation, location of structures depth of foundation etc. with respect to approved drawings and approved test plan, dimensions, reinforcement, concreting in foundation for major civil works.
 - Civil, mechanical and electrical works of treatment plant
- Providing opinion to the Employer on following :
- agreeing or determining an extension of time and / or additional cost.

- Determining a Variation, except;
- Determination of variation
- Monitor the performance of Contractor's representative and performance of sub-contractors
- In case of any complaints against any of the Contractor's personnel, after due inspection, instruct Contractor to take action/removal of any of the Contractor's personnel
- If, in the opinion of the Engineer, an emergency occurs affecting the safety of life or of the Works or of adjoining property, he may, without relieving the Contractor of any of his duties and responsibility under the Contract, instruct the Contractor to execute all such work or to do all such things as may, in the opinion of the Engineer, be necessary to abate or reduce the risk.
- The Engineer may issue to the Contractor (at any time) instructions and additional or modified Drawings which may be necessary for the execution of the Works and the remedying of any defects, all in accordance with the Contract.
- If an ambiguity or discrepancy is found in the documents, shall issue any necessary clarification or instruction.
- Giving opinion on Determination as per Condition of Contract
- Giving opinion on Contractor Claims as per Condition of Contract
- Assist Client in Dispute resolution mechanism - elaborate as per tender
- Monitor defect in defect notification period
- Monitor Contractor's performance while conducting O&M
- Give opinion on extension of time to Contractor.
- Calculation of damages
- Calculation of escalation
- Assist in preparation of bankable project report and arranging finances for the project.
- Provide Performance certificate/ completion certificate after discussing with Client
- To verify all the electricity bills and water charges related with construction till the rehab/sale buildings are handed over to the beneficiaries has been paid by the Contractor. Before transferring or issuance of Taking Over Certificate to check the Contractor shall clean the building and the site and shall remove debris, scaffolding, etc. from the site. PMC Consultants shall conduct on-site verification ✓



and point out any issues to the Employer. As per Volume II shall issue Taking Over Certificate.

- Monitor insurance taken by the Contractor
- The miscellaneous items and any other major items required for the successful implementation of the project shall also form the part of scope of work under this consultancy.

e. Measurement, Valuation, Certification Settlement of claims and financial control.

- Periodically measure the permanent works and value them in accordance with the methods of measurement and the unit rates as included in the construction contract.
- Receive the contractor's statement and upon verification against the measurement and valuation as above, certify the statements or correct them as required under the construction contract and forward them to MHADA for payment.
- Keep accurate records to maintain an effective cost control system and MHADA kept informed of financial commitments and when shall be required to make payments.
- Keep accurate records of all variations made and all Claims forwarded by the Contractor, together with the reasons thereof, which may affect the sum becoming payable to the contractor under the provisions of his contract;
- Upon agreement with the contractor on outstanding work still to be carried out by him during the testing before handover period and upon having obtained approval of the MHADA thereto, issue at the appropriate time the certificate of substantial completion and certify for release the portion of the retention money related thereto.
- Ensure that "as-built" drawings meeting professional standards are provided by the contractor.

f. Recommendation of Payment

- **Advance Payment:** The PMC Consultants shall deliver to the Employer and to the Contractor an Interim Payment Certificate for the advance payment or its first instalment after receiving a Statement and after the Employer receives (i) the Performance Security and (ii) a guarantee in amounts equal to the 110% of the advance payment.
- **Interim Payments:** The Contractor shall submit a Statement in six copies to the Engineer after the end of each month, in a form approved by the Engineer, showing in detail the amounts to which the Contractor considers himself to be entitled, together with supporting documents which shall include the report on the progress during this month. The Engineer (PMC Consultants), within 14 days after receiving a Statement / Bill of work executed and supporting documents from Contractor shall check and certify and after acceptance of rectified bill from the Contractor, record the bill in measurement books and submit the Bill to the Architect Consultant and the Employer. Once the Bill is submitted by the

Engineer to the Employer, the Employer shall measure the actual construction completed and verify the Statement/Bill of work executed and supporting documents within 14 days of receipt of such Bill. The Employer shall also verify the monthly reports submitted by the Architect Consultant before payment. After such checking / verification and after any corrections to such Bill, the same shall be processed to accounts office of the Employer for payment. The Engineer, after prior approval of the Employer, may in any Payment Certificate make any correction or modification that should properly be made to any previous Payment Certificate. A Payment Certificate shall not be deemed to indicate the Engineer's acceptance, approval, consent or satisfaction. An Interim Payment Certificate shall not be withheld for any other reason, although:

- if anything supplied or work done by the Contractor is not in accordance with the Contract, the cost of rectification or replacement may be withheld until rectification or replacement has been completed; and / or
 - if the Contractor was or is failing to perform any work or obligation in accordance with the Contract, and had been so notified by the Engineer, the value of this work or obligation may be withheld until the work or obligation has been performed.
- **Final Payment:** Within 28 days after receiving the Final Statement and discharge, the Engineer shall scrutinize the final bill and submit it to the Employer and the Architect Consultant for their approval. Employer exercise the necessary checks including actual measurement and verify the Statement / Bill of work executed and supporting documents. Only after confirmation from the Architect Consultant and the actual on site verification of all the details, the Employer shall submit to accounts for payment. If the Contractor has not applied for a Final Payment Certificate in accordance with Sub-Clause 14.11 [Application for Final Payment Certificate] and Sub-Clause 14.12 [Discharge], the Engineer shall request the Contractor to do so.

g. Post Contract Work

- On removal of all material, plant, equipment and staff from the site by the contractor, agree with the MHADA and the contractor on all monies owed to or by the contractor, including the remaining retention money, and release all guarantees and securities in accordance with the provisions of the construction contract.
- After clearing and tidying up of the site by the contractor is complete, carry out all work required to finalize the construction contract administratively.

h. O&M period and Defects Correction Supervision

- In the event of any defect / maintenance and whenever required/periodically, visit the site, ensure that repairs are properly carried out.
- Team Leader along with required members of team should visit atleast once in 3 months during the O&M period and Defect Liability Period and provide his comments to MHADA.
- On the occasion of site visits as above and / or request of the Client, supervise performance of the operators and report to the Client in case of shortcomings, including recommending on corrective actions. ✓



- At the end of the defects liability period and when all outstanding work is completed and all repairs are carried out satisfactorily, issue the certificate in accordance with the provisions of the construction contract.

i. Dispute resolution Process (for Contractor)

- If a dispute (of any kind whatsoever) arises between the Contractor and the MHADA in connection with, or arising out of, the Contract or the execution of the Works, including any dispute as to any certificate, determination, instruction, opinion or valuation of the PMC Consultants then it shall be first responsibility of the PMC consultants to resolve the issue. In case unsatisfied, either Party may refer the dispute to the Vice President and Chief Executive Officer of the MHADA. PMC Consultants shall represent the facts before the Vice President and Chief Executive Officer, MHADA.
- In case either Party is not satisfied by the settlement finalized by the Vice President and Chief Executive Officer of MHADA then such Party may submit in writing to the Dispute Board for its decision. PMC Consultants shall represent the facts before the Dispute Board.
- Any Dispute which is not resolved by Dispute Board, either Party may call upon the Vice President and Chief Executive Officer of the Employer to mediate based on the facts provided by Dispute Board and assist the Parties in arriving at an amicable settlement.
- Failing mediation by the Vice President and Chief Executive Officer of the Employer within 30 (thirty) days from the date of reference to discuss and attempt to amicably resolve the Dispute and if the Dispute is not resolved as evidenced by the signing of written terms of settlement within 30 (thirty) days of the notice in writing or such longer period as may be mutually agreed by the Parties, either Party may refer the Dispute to arbitration. PMC Consultants shall represent the facts before the Arbitration panel and in case required for the lawyers representing parties.

General Conditions of PMC/Engineer:

- It shall be noted that the Engineer shall have no authority to amend the Contract.
- The Engineer may exercise the authority attributable to the Engineer as specified in or necessarily to be implied from the Contract. If the Engineer is required to obtain the approval of the Employer before exercising a specified authority, the requirements shall be as stated in the Particular Conditions. The Employer shall promptly inform the Contractor of any change to the authority attributed to the Engineer.

However, whenever the Engineer exercises a specified authority for which the Employer's approval is required, then (for the purposes of the Contract) the Employer shall be deemed to have given approval.

ANNEXURE - II

- **PMC Consultants shall refer Volume I and Volume II for the appointment of Contractor. The same shall be referred for understanding the scope involved. Volume III and Volume IV will be provided to the successful Consultants**

General Responsibility sharing will be as below :

Sr. No.	Responsibility of the Contractor	Responsibility of the Engineer (Consultant / PMC)	Responsibility of the Architect Consultant	Responsibility of the Employer
1	Raising Bill for first stage of advance payment and submission of Bank Guarantee as per Contract Data	Deliver Interim Advance Payment Certificate	--	Payment of Advance as per the Contract Data
2	Study existing MCGM/BEST / MTNL infrastructure like water supply sewerage system, storm water system, any gas piping, electrical HT, LT, optical fiber line / telephone network system etc. Study the architectural plans, sections, service spaces available on proposed redevelopment plans, structural and service design basis reports and prepare detailed comprehensive augmentation plan / proposal	Checking that all the parameters have been considered by the Contractor and issuing instructions to Contractor to process for obtaining approvals from concerned Authorities.	Providing Architectural Plan details and assisting / guidance in evaluating the plans prepared by Contractor	Coordination efforts in finalising plan / proposal.
3	Conduct necessary investigations and survey for designing of the construction as specified in Volume IV with prior permission of MHADA.	On-site co-ordination, checking / verification of survey data and pointing issues to the Employer	Evaluate any modifications required to the plan based on investigation reports	Providing the required permission and necessary on-site coordination
4	Prepare and submit services master plans, its compatible to the requirements of volume III and IV, and its connections with offsite infrastructure including its sufficiency to cater the additional loads of redevelopment, and propose alterations / modifications required in offsite / onsite designs.	Verification of submissions and proof checking whether it complies with MHADA / MCGM requirements	Checking the submissions for compliance with the architectural plan	To provide concurrence based on Engineer and Architect Consultant's recommendations and as per MHADA / MCGM requirements

5	Develop and submit best possible infrastructure implementation plan in gross and master plan level.	Verification of submissions and proof checking whether it complies with MHADA / MCGM / infrastructure development authorities requirements and providing necessary Technical Guidance in finalizing plan.	Checking the submissions for compliance with the architectural plan	To provide concurrence based on Engineer and Architect Consultant's recommendations and as per MHADA / MCGM / infrastructure development authorities requirements
6	Prepare and submit for phase wise services development plans including additional infrastructural development to complete even before commencing of the work and take necessary approvals from the concerned authorities, prior to actual execution of such works..	Verify that no existing occupant's essential services are getting disturbed during construction phase/s.	Checking the submissions for compliance with the architectural plan	To provide concurrence based on Engineer and Architect Consultant's recommendations
7	Prepare and submit structural drawings at his own costs, and submit the detailed analysis report with all required calculations in the prescribed format and design basis report in volume III. The Contractor has to get Structural Designs of Buildings in project proof checked / vetted through Indian Institute of Technology-Mumbai. It shall be noted that the submitting detailed proposal, presenting proposal before High Rise Committee & obtaining approval of the High Rise Committee shall be the responsibility of the Selected Bidder.	Verification of submissions and proof checking of designs.	Peer review of the designs & may ask for some corrections/ omissions/ amendments in the designs and then issue NOC to go ahead to the contractor. Assisting in preparing proposal for High Rise Committee.	To provide concurrence based on Engineer and Architect Consultant's recommendations
8	Obtain the other NOC's like civil aviation, Heritage, if applicable, etc. and coordination and Liasoning / pursuing with respective authorities	Coordination	Preparation of drawings and documents / presentations for getting approval of civil aviation, Heritage, if applicable, etc.	Coordination

9	Obtain the other permissions / NOC's required from other service providers like BEST and any other for electricity supply, MTNL or any other agency for telephone, data and low voltage lines) and coordination and Liasoning / pursuing with respective authorities.	Coordination	Preparation of drawings and documents / presentations for getting approval of BEST and any other for electricity supply, MTNL or any other agency for telephone, data and low voltage lines) etc.	Coordination
10	Submit material approval requisition complying with details mentioned in volume III and IV to Architect consultant, PMC and MHADA	Verification of submissions and proof checking whether it complies with the Volume III and Volume IV of RFP	Verification of submissions whether it complies with the Volume III and Volume IV of RFP	To provide approval based on Engineer and Architect Consultant's recommendations
11	Submit technical information's / designs / documents as asked by Architect consultant, PMC and MHADA from time to time	Verification of submissions and proof checking whether it complies with the Volume III and Volume IV of RFP	Verification of submissions whether it complies with the Volume III and Volume IV of RFP	To provide approval based on Engineer and Architect Consultant's recommendations
12	Submit detailed project implementation plan including project schedule taking into consideration construction phasing and site constraints. The detailed project implementation plan shall also include each machinery that is going to be used for each activity and the period of such usage. Further, it shall include detailed manpower deployment plan over the construction period of the project. Coordinate with MHADA regarding availability of transit camps and work on other options of redevelopment in the available open spaces. Project Logistics, safety and security plan shall be part of the project implementation plan.	Verification of submissions and proof checking whether it complies with the RFP	Verification of submissions and checking whether it complies with the RFP	To provide approval based on Engineer and Architect Consultant's recommendations. To provide transit camp, in case available.

13	Preparing structural and services designs.	Verification of submissions and proof checking whether it complies with the Volume III and Volume IV of RFP	Verification of submissions whether it complies with the Volume III and Volume IV of RFP	To provide concurrence based on Engineer and Architect Consultant's recommendations
14	Develop structural and services plans for common infrastructural development including Landscaping the area as per norms of MCGM. To get approved the technical drawings for other provisions like rain water harvesting, solar roof panels, street lights, lights on the building periphery, trees, cross drains, culverts, compound wall, gate, etc. as per existing Environmental/DCR norms and as per the instructions issued in the project specific environmental and other clearances.	Verification of submissions and proof checking whether it complies with the RFP	Verification of submissions and checking whether it complies with the RFP	To provide approval / concurrence based on Engineer and Architect Consultant's recommendations.
15	Transportation of existing occupants along with their belongings, as per the project implementation plan, to transit accommodation as finalized by MHADA. It shall be noted that construction of transit camp is not the scope of the Contractor.	On-site coordination and pointing issues to the Employer	Periodic review/assisting MHADA in coordination activity.	Providing the permission and necessary on-site coordination
16	Shifting of necessary infrastructure, including reconnection as per site conditions/MCGM and other necessary approvals in such a way that existing infrastructure and services to other existing buildings/chawls is not affected/remains functional.	Verification of plan and On-site coordination and pointing issues to the Employer	Periodic review/assisting MHADA in coordination activity .	Providing the concurrence / permission and necessary on-site coordination
17	Demolition of vacant existing structures after transportation and disposal/sale of such waste generated as per environmental norms and safety of the adjoining structures.	On-site coordination and pointing issues to the Employer	Periodic review/assisting MHADA in coordination activity .	Providing the permission and necessary on-site coordination
18	Raising Bill for second stage of advance payment and	Deliver to the Contractor Interim	Periodic review/assisting	Payment of Advance as

	submission of Bank Guarantee as per Contract Data	Advance Payment Certificate	MHADA in coordination activity .	per the Contract Data
19	To take necessary approvals or permissions for excavation or procurement of any natural material and pay necessary statutory charges such as royalty. Also, to pay any ground rent charged by the local authorities for stacking material.	Checking whether it complies with the Volume III and Volume IV of RFP	Periodic review	To provide concurrence / approval based on Engineer and Architect Consultant's recommendations.
20	To maintain field laboratory for Material Testing of construction materials as mentioned in Volume III.	Testing of materials as per norms and verification of the laboratory equipment requirements.	Periodic review	Periodic review and coordination activity .
21	Construction of units and commercial area including buildable reservations under rehabilitation and sale component/commercial as per the drawings and the master plan provided in Volume IV. To maintain the quality of rehab., sale, amenity and commercial construction work in all respects by using Standard quality materials as stipulated in Technical Specifications (Volume III and IV) and to the satisfaction of Architect Consultants and Project Management Consultant (P.M.C.) and Employer .	Day to day supervision of construction work/s w.r.t. good quality and execution as per specifications in volume III. Verification of the quality and monitoring as per the Volume III and IV of the RFP. Monitoring the timelines of construction	Periodical supervision of construction work/s w.r.t. good quality and execution as per specifications in volume III. Verification of submissions and checking whether it complies with the RFP	Periodical monitoring of ongoing construction work/s w.r.t. contract agreement and monitoring / review of duties entrusted to Architect-consultant and PMC. Verification / checking of measurement / bill of payments proposed by PMC & processing it for payment to contractor. Periodical supervision of work/s. To provide necessary concurrence / approval about project work/s

				whenever required based on Engineer and Architect Consultant's recommendation. Allotment of tenements to beneficiaries after completion of building in all respect .
22	Repair any defect in constructed buildings including allied spaces for a period of five years (Defect Notification Period) starting from the date of handing over of last tenements to beneficiaries or such completion of each cluster; whichever is later .	Checking whether it complies with the Volume III and Volume IV of RFP Inspection of defects, it's proper assessment and getting it duly rectified from Contractor during defect notification period .	Periodic review	To monitor/ coordinate with repair activity in consultation with PMC.
23	To comply with the requirements/instructions given while obtaining Commencement Certificate at various stages of building construction and obtain compliances like plinth checking certificate, Occupation Certificate after each building completion, Completion Certificate, any other required approvals and allied NOCs from concerned authorities along with Architect Consultants. Coordination and liasoning with respective authorities for obtaining clearance/certificates shall be the responsibility of the Contractor.	On-site coordination and pointing issues to the Employer	Preparation of required drawings and documents/certifications and coordination with MCGM, Any other Authority and Contractor/PMC.	To provide necessary concurrence /coordination /approval based on Engineer and Architect Consultant's recommendations and ensuring approval process.

24	Any approvals at the time of commissioning the services like Sewage Treatment Plant, Electrical substation, electrical meters, gas connections, telephone connections and any approval required for smooth functioning of services shall be the responsibility of the Contractor. The Contractor shall take necessary consent to establish and consent to operate. All the approvals shall be in the name of Chief Officer, MHADB.	On-site coordination and pointing issues to the Employer	coordination with MCGM, Any other Authority and Contractor/PMC Preparation of Necessary drawings/documents and further submission process.	To provide necessary concurrence /coordination /approval based on Engineer and Architect Consultant's recommendations and ensuring approval process .
25	Do the necessary liasoning /pursuance for obtaining required permissions and approvals related to infrastructure and services at pre- construction, construction and post construction (O&M period) period including Electrical supply, water connection, drainage completion certificate, drainage connection and any other required permission/approval fire, tree cutting/replantation, MPCB, all building allied services mentioned in Volume III and IV from BEST, MCGM or any other local Authority. Coordination and liasoning with respective authorities for obtaining clearance/certificates shall be the responsibility of the Contractor. All the approvals shall be in the name of Chief Officer, MHADB.	On-site coordination and pointing issues to the Employer	Preparation and submission of Required drawings and documents / certifications.	To provide approval based on Engineer and Architect Consultant's recommendations. coordination with MCGM , Any other Authority and Contractor/ PMC
26	To transport and shift beneficiaries from transit camps to constructed units after obtaining Occupation Certificate and after construction of allied infrastructure requirements for such phased completion and as directed by MHADA/PMC.	On-site coordination and pointing issues to the Employer	Coordination / Periodic review	Providing the permission and necessary on-site coordination
27	To pay all the electricity bills and water charges related with	On-site verification and pointing	Periodic review	Verification.

	construction till the rehab/sale buildings are handed over to the beneficiaries. Before transferring or issuance of Taking Over Certificate the Contractor shall clean the building and the site and shall remove debris, scaffolding, etc. from the site.	issues to the Employer		
28	To pay for any other incidental charges or penalties with respect to the construction of the project such as rada road charges, use of internal roads/ other infrastructure for stacking/ spreading of materials and pay any damages to any common infrastructure. The Contractor shall be solely responsible and shall indemnify the Employer/Consultants appointed by the Employer in this regard.	Verification and pointing issues to the Employer	Periodic review	Verification.
29	To pay VAT, labour cess, work contract tax, Service Tax on the bill amount and any other statutory taxes as applicable.	Verification and pointing issues to the Employer	Periodic review	Verification. The taxes (excluding income tax, toll tax and any taxes, cess, duties, etc. which are to be paid by the Contractor to local authorities) paid by the Contractor will be reimbursed by the Employer after receipt of payment receipts from Contractor.

30	To maintain (O&M) all the buildings (attending towards cracks/leakage/dischouration of paint) and infrastructure created in respect of water supply, lift, electrical pumps, Fire Fighting System, Sewerage Treatment Plant (STP), Solar system, Rainwater harvesting system, Layout Street Light, including any common infrastructure and services for a period of two years (O&M Period for Rehab building) from the date of handing over rehab tenements ; whereas , the bidder has to maintain sale buildings for a period of one year (O&M Period for sale building) from the date of occupation Certificate & Building completion certificate & water connection and as mentioned in Volume III. However, the O&M period for common infrastructure within a single cluster shall be for a period of one year from the date of completion of the particular single cluster, as defined in Volume IV.	On-site verification and pointing issues to the Employer	Periodic review	Verification and ensuring compliance.
31	Raising of Bills as per the Contract Data	Deliver Interim Advance Payment Certificate	Periodic review	Payment as per the Contract Data




ANNEXURE - III

- Key Personnel and Supporting Staff (Field)
- The Consultancy Team shall consist of the following key personnel (the "Key Personnel") who are the permanent employees of the company and shall discharge their respective responsibilities as specified below. Curriculum Vitae (CV) of Key Personnel and supporting field staff shall be submitted to MHADA with relevant details as mentioned separately .

(A) KEY PERSONAL		
Sr. No	Position	Responsibility
1	Team Leader cum Project Manager	In design review and overall monitoring of team
2	Sr. MEP Engineer (Part-time)	In MEP design
3	Construction Manager	In design review and activity scheduling
4	Planning Manager	In Planning and Execution of and project management
5	QA/QC Manager	In preparing and implementing QA/QC plan
6	Safety Manager	In preparing and implementing safety plan
7	MEP Manager	In design review and Execution
8	Finance Expert	financial management of the project and assist in preparation of bankable project report and mobilization of funds.
9	Contracts Manager	Preparation of Contract documents related to buildings/ infrastructure related construction projects and having knowledge of financial feasibility and impact of any decision on client
(B) SUPPORTING STAFF (Field)		
1	Project Engineers	In execution of residential/ commercial/ institutional/ high-rise building projects
2	Project Supervisors	In execution of residential/ commercial/ institutional/ high-rise building projects
3	Planning Engineer	In Planning and Execution of residential / commercial / institutional / high-rise building projects. Should have experience in MS Projects / Primevara or other equivalent software.
4	QA/QC Engineers	In implementing QA/QC plan for execution of residential/ commercial/ institutional/ high-rise building projects
5	Safety Supervisors	In execution of residential/ commercial/ institutional/ high-rise building projects
6	Electrical Engineers	In execution of residential/ commercial/ institutional/ high-rise building projects
7	QS/Billing Engineers	In execution of residential/ commercial/ institutional/ high-rise building projects
8	Documentation Controllers	In documentation control for execution of residential/ commercial/ institutional/ high-rise building projects.

(A.) Each of the Key Personnel mentioned above are fulfilling the Conditions of Eligibility specified below:

(A) KEY PERSONAL

Sr. No.	Position	No.	Minimum Qualification	Minimum Experience	Experience field
1	Team Leader cum Project Manager	1	B.E. / B. Tech (civil) with M.E, MTech, PGDCM or M.B.A (construction industries)	15 yrs.	In design review and execution of residential / commercial / institutional / high-rise building projects
2	Sr. MEP Engineer (Part-time)	1	B.E. / B. Tech in Electrical / Mechanical	10 yrs.	In MEP design of residential / commercial / institutional / high-rise building projects.
3	Construction Manager	2	B.E. / B. Tech in Civil / Construction	10 yrs.	In design review and Execution of residential / commercial / institutional / high-rise building projects
4	Planning Manager	1	B.E. / B.Tech in Civil / Construction or Diploma in Civil / Construction	10 yrs. 15 yrs.	In Planning and Execution of residential / commercial / institutional/ high-rise building projects. Should have experience in MS Projects / Primavera or other equivalent software.
5	QA/QC Manager	1	B.E. / B. Tech in Civil / Construction or Diploma in Civil / Construction	10 yrs. 15 yrs.	In preparing and implementing QA/QC plan for execution of residential/ commercial / institutional / high-rise building projects
6	Safety Manager	1	B.E. / B. Tech in Civil / Construction, or Diploma in Civil/Construction post graduate qualifications / training on safety management / Advance Diploma in Industrial safety will be preferred.	10 yrs. 15 yrs.	In preparing and implementing safety plan for execution of residential/ commercial/ institutional/ high-rise building projects

7	MEP Manager	1	B.E. / B. Tech in Electrical / Mechanical or Diploma in Electrical / Mechanical	10 yrs. 15 yrs.	In design review and Execution of residential/ commercial/ institutional/ high-rise building projects
8	Finance Expert	1	MBA (Finance) / CA / CFA	10 yrs.	Should provide services for financial management of the project and assist in preparation of bankable project report and mobilization of funds.
9	Contracts Manager	1	B.E. / B. Tech in civil / construction or Diploma in Civil / Construction with post graduate qualifications in fields Finance (MBA/CA/CFA) and should have done L.L.B. He should be registered asset valuer	10 yrs. 15 yrs.	Experience in preparation of Contract documents related to buildings/infrastructure related construction projects and having knowledge of financial feasibility and impact of any decision on client

(B) SUPPORTING STAFF (Field)

1	Project Engineers	2	B.E. / B. Tech in civil / construction or Diploma in Civil / Construction	8 yrs. 3 yrs.	In execution of residential/ commercial/ institutional/ high-rise building projects
2	Project Supervisors	6	Diploma / B.E. / B.Tech in civil / construction	5 yrs.	In execution of residential/ commercial/ institutional/ high-rise building projects
3	Planning Engineer	1	B.E. / B.Tech in civil / construction	8 yrs.	In Planning and Execution of residential/ commercial/ institutional/ high-rise building projects. Should have experience in MS Projects/Primavera or other equivalent software.

4	QA/QC Engineers	2	B.E/ B.Tech in Civil / Construction or Diploma in Civil / Construction	8 yrs 13 yrs	In implementing QA/QC plan for execution of residential/ commercial/ institutional/ high-rise building projects
5	Safety Supervisors	2	Diploma/B.E/ B.Tech in civil/ construction	5 yrs.	In execution of residential/ commercial/ institutional/ high-rise building projects
6	Electrical Engineers	2	B.E/ B.Tech in Electrical/ Electronics or Diploma in Electrical/Electronics	8 yrs 13 yrs	In execution of residential/ commercial/ institutional/ high-rise building projects
7	QS/Billing Engineers	4	Diploma/B.E/ B.Tech in civil/ construction	5 yrs	In execution of residential/ commercial/ institutional/ high-rise building projects
8	Documentation Controllers	2	Graduate in any field	5 yrs	In documentation control for execution of residential/ commercial/ institutional/ high-rise building projects

• **Curriculum Vitae (CV) of Key Personnel and Supporting field staff**

1. Proposed Position:
2. Name of Personnel:
3. Date of Birth:
4. Nationality:
5. Educational Qualifications:
6. Employment Record: (Starting with present position, list in reverse order every employment held.)
7. List of projects on which the Personnel has worked
8. Details of the current assignment and the time duration for which services are required for the current assignment.

Certification:

- I am willing to work on the Project and I will be available for entire duration of the Project assignment as required.
- I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes myself, my qualifications and my experience.

Place..... (Signature and name of the Key Personnel/field staff)

(Signature and name of the authorised signatory of the Applicant)

Notes:

- Use separate form for each Key Personnel/field staff.
- The names and chronology of assignments included here should confirm to the project-wise details.
- Each page of the CV shall be signed in ink by both the Personnel concerned and by the Authorised Representative of the Applicant firm along with the seal of the firm.

