PART II
DRAFT AGREEMENT

FOR

CONSTRUCTION OF MARINA IN MUMBAI HARBOUR

MUMBAI PORT AUTHORITY

PORT HOUSE, 3RD FLOOR,

SHOORJI VALLABHDAS MARG,

BALLARD ESTATE

MUMBAI – 4000 001.

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ENGINEERING, PROCUREMENT AND CONSTRUCTION AGREEMENT

THIS AGREEMENT[1] is entered into on this the ..... day of ....., 2025.

BETWEEN

The Board of Mumbai Port Authority (MbPA), Port Bhavan, Shoorji Vallabhdas Marg, Ballard Estate, Mumbai-400 001 (hereinafter referred to as the **"Employer"** which expression shall, unless repugnant to the context or meaning thereof, include its administrators, successors and assigns) of One Part;

AND

{----------,} means the selected bidder having its registered office at ....., (hereinafter referred to as the "**Contractor**" which expression shall, unless repugnant to the context or meaning thereof, include its successors and permitted assigns) of the Other Part.

WHEREAS:

(A) The Employer, Mumbai Port Authority, a major Port, Government of India has proposed **Construction of Marina in Mumbai Harbour**.

(B) The **Employer** had resolved to **Construction of Marina in Mumbai Harbour** on item rate (percentage) basis in accordance with the terms and conditions to be set forth in an agreement to be entered into.

(C) The **Employer** had prescribed the technical and commercial terms and conditions and invited bids (the "Request for Proposals" or "RFP") from the bidders for undertaking the Project on an item rate basis.

(D) After evaluation of the bids received, the **Employer** had accepted the bid of the selected bidder and issued its Letter of Acceptance No. ..... dated ..... (hereinafter called the "LA") to the selected bidder for **Construction of Marina in Mumbai Harbour at** the contract price specified hereinafter, requiring the selected bidder to inter alia:

   (i) deliver to the **Employer** a legal opinion from the legal counsel of the selected bidder with respect to the **Employer** of the selected bidder to enter into this Agreement and the enforceability of the provisions thereof, within 15 (fifteen) days of the date of issue of LA; and

   (ii) Execute this Agreement within 30 (Thirty) days of the date of issue of LA.

(E) The Contractor has fulfilled the requirements specified in Recital (E) above;

NOW THEREFORE in consideration of the foregoing and the respective covenants and agreements set forth in this Agreement, the sufficiency and adequacy of which is hereby acknowledged, the **Employer** hereby covenants to pay the Contractor, in consideration of the obligations specified herein, the Contract Price or such other sum as may become payable under the provisions of the Agreement at the times and in the manner specified by the Agreement and intending to be legally bound hereby, the Parties agree as follows:

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

(a) Part II Agreement

The Agreement;
Corrigendum to the Agreement;
Addendum, if any, to RFP;
Letter comprising the financial Bid;
Letter of Acceptance;
Power of Attorney;
Joint Venture Agreement, if any;
Legal opinion;
Any other document to be specified

(b) Part III : Technical Documents
Vol. I - Technical Specifications
Vol. II - Tender Drawings
Vol. III - Geotechnical Report
Response to bidder queries
Technical clarifications
Pre-bid meeting minutes
Any other document to be specified

ARTICLE 1
1. DEFINITIONS AND INTERPRETATION

1.1. Definitions

The words and expressions beginning with capital letters and defined in this Agreement (including those in Article 25) shall, unless the context otherwise requires, have the meaning ascribed thereto herein, and the words and expressions defined in the Schedules and used therein shall have the meaning ascribed thereto in the Schedules.

1.2. Interpretation

1.2.1. In this Agreement, unless the context otherwise requires,

(a) references to any legislation or any provision thereof shall include amendment or re-enactment or consolidation of such legislation or any provision thereof so far as such amendment or re-enactment or consolidation applies or is capable of applying to any transaction entered into hereunder;

(b) references to laws of India or Indian law or regulation having the force of law shall include the laws, acts, ordinances, rules, regulations, bye laws or notifications which have the force of law in the territory of India and as from time to time may be amended, modified, supplemented, extended or re-enacted;

(c) references to a "person" and words denoting a natural person shall be construed as a reference to any individual, firm, company, corporation, society, trust, government, state or agency of a state or any association or partnership (whether or not having separate legal personality) of two or more of the above and shall include successors and assigns;

(d) the table of contents, headings or sub-headings in this Agreement are for convenience of reference only and shall not be used in, and shall not affect, the construction or interpretation of this Agreement;

(e) the words "include" and "including" are to be construed without limitation and shall be deemed to be followed by "without limitation" or "but not limited to" whether or not they are followed by such phrases;

(f) references to "construction" or "building" include, unless the context otherwise requires, survey and investigation, design, developing, engineering, procurement, supply of plant, materials, equipment, labour, delivery, transportation, installation, processing, fabrication, testing, and commissioning of the Project facilities, including maintenance during the Construction Period, removing of defects, if any, and other activities incidental to the construction and "construct" or "build" shall be construed accordingly;

(g) references to "development" include, unless the context otherwise requires, construction, renovation, refurbishing, augmentation, up-gradation and other activities incidental thereto during the Construction Period, and "develop" shall be construed accordingly;

(h) any reference to any period of time shall mean a reference to that according to Indian standard time;

(i) any reference to day shall mean a reference to a calendar day;

(j) references to a "business day" shall be construed as a reference to a day (other than a Sunday) on which banks in Mumbai are generally open for business;

(k) any reference to month shall mean a reference to a calendar month as per the Gregorian calendar;

(l) references to any date, period or Project Milestone shall mean and include such date, period or Project Milestone as may be extended pursuant to this Agreement;

(m) any reference to any period commencing "from" a specified day or date and "till" or "until" a specified day or date shall include both such days or dates; provided that if the last day of any period computed under this Agreement is not a business day, then the period shall run until the end of the next business day;

(n) the words importing singular shall include plural and vice versa;

(o) references to any gender shall include the other and the neutral gender;

(p) "lakh" means a hundred thousand (100,000) and "crore" means ten million (10,000,000);

(q) "indebtedness" shall be construed so as to include any obligation (whether incurred as principal or surety) for the payment or repayment of money, whether present or future, actual or contingent;

(r) references to the "winding-up", "dissolution", "insolvency", or "reorganisation" of a company or corporation shall be construed so as to include any equivalent or analogous proceedings under the law of the jurisdiction in which such company or corporation is incorporated or any jurisdiction in which such company or corporation carries on business including the seeking of liquidation, winding-up, reorganisation, dissolution, arrangement, protection or relief of debtors;

(s) save and except as otherwise provided in this Agreement, any reference, at any time, to any agreement, deed, instrument, license or document of any description shall be construed as reference to that agreement, deed, instrument, license or other document as amended, varied, supplemented, modified or suspended at the time of such reference; provided that this Clause shall not operate so as to increase liabilities or obligations of the **Employer** hereunder or pursuant hereto in any manner whatsoever;

(t) any agreement, consent, approval, authorisation, notice, communication, information or report required under or pursuant to this Agreement from or by any Party or the Engineer / Engineer's Representative shall be valid and effective only if it is in writing under the hand of a duly authorised representative of such Party or the Engineer / Engineer's Representative, as the case may be, in this behalf and not otherwise;

(u) the Schedules and Recitals to this Agreement form an integral part of this Agreement and will be in full force and effect as though they were expressly set out in the body of this Agreement;

(v) references to Recitals, Articles, Clauses, Sub-clauses or Schedules in this Agreement shall, except where the context otherwise requires, mean references to Recitals, Articles, Clauses, Sub-clauses and Schedules of or to this Agreement, and references to a Paragraph shall, subject to any contrary indication, be construed as a reference to a Paragraph of this Agreement or of the Schedule in which such reference appears;

(w) the damages payable by either Party to the other of them, as set

forth in this Agreement, whether on per diem basis or otherwise, are mutually agreed genuine pre-estimated loss and damage likely to be suffered and incurred by the Party entitled to receive the same and are not by way of penalty (the "**Damages**"); and

(x) time shall be of the essence in the performance of the Parties" respective obligations. If any time period specified herein is extended for the reasons specified in the Agreement, such extended time shall also be of the essence.

1.2.2. Unless expressly provided otherwise in this Agreement, any Documentation required to be provided or furnished by the Contractor to the Employer shall be provided free of cost and in three copies, and if the Employer is required to return any such Documentation with its comments and/or approval, it shall be entitled to retain two copies thereof.

1.2.3. The rule of construction, if any, that a contract should be interpreted against

1.2.4. the parties responsible for the drafting and preparation thereof, shall not apply. 1.2.4 Any word or expression used in this Agreement shall, unless otherwise defined or construed in this Agreement, bear its ordinary English meaning and, for these purposes, the General Clauses Act, 1897 shall not apply.

1.3. Measurements and arithmetic conventions

All measurements and calculations shall be in the metric system and calculations done to 2 (two) decimal places, with the third digit of 5 (five) or above being rounded up and below 5 (five) being rounded down.

1.4. Priority of agreements and errors/discrepancies

1.4.1. This Agreement, and all other agreements and documents forming part of or referred to in this Agreement are to be taken as mutually explanatory and, unless otherwise expressly provided elsewhere in this Agreement, the priority of this Agreement and other documents and agreements forming part hereof or referred to herein shall, in the event of any conflict between them, be in the following order:

(a) this Agreement; and

(b) all other agreements and documents forming part hereof or

referred to herein; i.e. this Agreement at (a) above shall prevail over the agreements and documents at (b).

1.4.2. Subject to the provisions of Clause 1.4.1, in case of ambiguities or discrepancies within this Agreement, the following shall apply:

(a) between two or more Clauses of this Agreement, the provisions of a specific Clause relevant to the issue under consideration shall prevail over those in other Clauses;

(b) between the Clauses of this Agreement and the Schedules, the Clauses shall prevail and between Schedules and Annexes, the Schedules shall prevail;

(c) between any two Schedules, the Schedule relevant to the issue shall prevail;

(d) between the written description on the Drawings and the Specifications and Standards, the latter shall prevail;

(e) between the dimension scaled from the Drawing and its specific written dimension, the latter shall prevail; and

(f) between any value written in numerals and that in words, the latter shall prevail.

1.5. Joint and several liability

1.5.1. If the Contractor has formed a Consortium of two or more persons for implementing the Project:

a. these persons shall, without prejudice to the provisions of this Agreement, be deemed to be jointly and severally liable to the Employer for the performance of the Agreement; and

b. the Contractor shall ensure that no change in the composition of the Consortium is effected without the prior consent of the Employer.

Without prejudice to the joint and several liability of all the members of the Consortium, the Lead Member shall represent all the members of the Consortium and shall at all times be liable and responsible for discharging the functions and obligations of the Contractor. The Contractor shall ensure that each member of the Consortium shall be bound by any decision,

communication, notice, action or inaction of the Lead Member on any matter related to this Agreement and the Employer shall be entitled to rely upon any such action, decision or communication of the Lead Member. The Employer shall have the right to release payments solely to the Lead Member and shall not in any manner be responsible or liable for the *inter se* allocation of payments among members of the Consortium.

ARTICLE 2
2. SCOPE OF THE PROJECT

2.1. Scope of the Project

Under this Agreement, the scope of the Project (the "**Scope of the Project**") shall mean and include:

(a) **Construction of Marina in Mumbai Harbour** on the site set forth in Schedule-A and as specified in Schedule-B, and in conformity with the Specifications and Standards set forth in Schedule-D;

(b) Performance and fulfilment of all other obligations of the Contractor in accordance with the provisions of this Agreement and matters incidental thereto or necessary for the performance of any or all of the obligations of the Contractor under this Agreement.

ARTICLE 3
3. OBLIGATIONS OF THE CONTRACTOR

3.1. Obligations of the Contractor

3.1.1. Subject to and on the terms and conditions of this Agreement, the Contractor shall undertake the survey, investigation, methodology of construction, construction engineering for civil and marine works, procurement, construction, and maintenance of the Project facilities and observe, fulfil, comply with and perform all its obligations set out in this Agreement or arising hereunder.

3.1.2. The Contractor shall comply with all Applicable Laws and Applicable Permits (including renewals as required) in the performance of its obligations under this Agreement.

3.1.3. Subject to the provisions of Clauses 3.1.1 and 3.1.2, the Contractor shall discharge his obligations in accordance with Good Industry Practice and as a reasonable and prudent person.

3.1.4. The Contractor shall remedy any and all loss or damage to the Project from the Appointed Date until the end of the Construction Period at the Contractor's cost, save and except to the extent that any such loss or damage shall have arisen from any default or neglect of the Employer.

3.1.5. The Contractor shall remedy any and all loss or damage to the Project during the Defects Liability Period at the Contractor's cost to the extent that such loss or damage shall have arisen out of the reasons specified in Clause 14.3.

3.1.6. The Contractor shall remedy any and all loss or damage to the Project facilities during the Defects Liability Period at the Contractor's cost, save and except to the extent that any such loss or damage shall have arisen on account of any default or neglect of the Employer or on account of a Force Majeure Event.

3.1.7. The Contractor shall, at its own cost and expense, in addition to and not in derogation of its obligations elsewhere set out in this Agreement:

(a) make, or cause to be made, necessary applications to the relevant Government Instrumentalities with such particulars and details as may be required for obtaining Applicable Permits set forth in Schedule-F and obtain and keep in force and effect such Applicable Permits in conformity with the Applicable Laws;

(b) procure, as required, the appropriate proprietary rights, licences, agreements and permissions for Materials, methods, processes and systems used or incorporated into the Project facilities;

(c) make reasonable efforts to maintain harmony and good industrial relations among the personnel employed by it or its Sub-contractors in connection with the performance of its obligations under this Agreement;

(d) ensure and procure that its Sub-contractors comply with all Applicable Permits and Applicable Laws in the performance by them of any of the Contractor's obligations under this Agreement;

(e) not do or omit to do any act, deed or thing which may in any manner be violative of any of the provisions of this Agreement;

(f) support, cooperate with and facilitate the Employer in the implementation and operation of the Project in accordance with the provisions of this Agreement;

(g) ensure that the Contractor and its Sub-contractors comply with the safety and welfare measures for labour in accordance with the Applicable Laws and Good Industry Practice;

(h) keep, on the Site, a copy of this Agreement, publications named in this Agreement, the Drawings, Documents relating to the Project, and Change of Scope Orders and other communications given under this Agreement. The Engineer / Engineer's Representative and its authorised personnel shall have the right of access to all these documents at all reasonable times;

(i) cooperate with other contractors employed by the Employer and personnel of any public Employer; and

(j) not interfere unnecessarily or improperly with the convenience of the public, or the access to and use and occupation of all roads and footpaths, irrespective of whether they are public or in the possession of the Employer or of others.

3.1.8. The Contractor shall undertake all necessary superintendence to plan, arrange, direct, manage, inspect and test the Works.

3.2. Obligations relating to sub-contracts and any other agreements

3.2.1. The Contractor, whether Consortium/Joint Venture or sole, shall not sub-contract any Works and shall carry out Works directly under its own supervision and through its own personnel and equipment. However, that in respect of the Works carried out by the Contractor, it may enter into contracts for the supply and installation of Materials, Plant, equipment, wharf accessories, safety devices and labour, as the case may be, for such Works. The Parties further agree that all obligations and liabilities under this Agreement for the entire project shall at all times remain with the Contractor.

3.2.2. It is expressly agreed that the Contractor shall, at all times, be responsible and liable for all its obligations under this Agreement notwithstanding anything contained in the agreements with its Sub-contractors or any other agreement that may be entered into by the Contractor, and no default under any such agreement shall excuse the Contractor from its obligations or liability hereunder.

3.3. Employment of foreign nationals

The Contractor acknowledges, agrees and undertakes that employment of foreign personnel by the Contractor and/or its Sub-contractors and their sub-contractors shall be subject to grant of requisite regulatory permits and approvals including employment/residential visas and work permits, if any required, and the obligation to apply for and obtain the same shall and will always be of the Contractor. Upon obtaining necessary visa/permits, approval for accessing the site shall be applied by the contractor to Employer well in advance of 30 days prior to the requirement of such personnel in the work site. Notwithstanding anything to the contrary contained in this Agreement, refusal of or inability to obtain any such permits and approvals by the Contractor or any of its Sub-contractors or their sub-contractors shall not constitute Force Majeure Event and shall not in any manner excuse the Contractor from the performance and discharge of its obligations and liabilities under this Agreement.

3.4. Contractor's personnel

3.4.1. The Contractor shall ensure that the personnel engaged by it or by its Sub-contractors in the performance of its obligations under this Agreement are at all times appropriately qualified, skilled and experienced in their respective functions in conformity with Good Industry Practice.

3.4.2. The Engineer / Engineer's Representative may, for reasons to be specified

in writing, direct the Contractor to remove any member of the Contractor's or Sub-Contractor's personnel. Provided that any such direction issued by the Engineer / Engineer's Representative shall specify the reasons for the removal of such person.

3.4.3. The Contractor shall on receiving such a direction from the Engineer / Engineer's Representative order for the removal of such person or persons with immediate effect. It shall be the duty of the Contractor to ensure that such persons are evicted from the Site within 10 (ten) days of any such direction being issued in pursuance of Clause 3.4.2. The Contractor shall further ensure that such persons have no further connection with the Works under this Agreement. The Contractor shall then appoint (or cause to be appointed) a replacement.

3.5. Advertisement on Project site

The Project site or any part thereof shall not be used in any manner to advertise any commercial product or services.

3.6. Contractor's care of the Works

The Contractor shall bear full risk in and take full responsibility for the care of the Works, and of the Materials, goods and equipment for incorporation therein, from the Appointed Date until the date of Provisional Certificate (with respect to the Works completed prior to the issuance of the Provisional Certificate) and/or Completion Certificate (with respect to the Works referred to in the Punch List), save and except to the extent that any such loss or damage shall have arisen from any default or neglect of the Employer.

3.7. Electricity, water and other services

The Contractor shall be responsible for procuring of all power, water and other services that it may require.

3.8. Unforeseeable difficulties

Except as otherwise stated in the Agreement:

(a) the Contractor accepts complete responsibility for having foreseen all difficulties and costs of successfully completing the Works.

(b) the Contract Price shall not be adjusted to take account of any unforeseen difficulties or costs; and

(c) the Scheduled Completion Date shall not be adjusted to take account of any unforeseen difficulties or costs.

3.9. Equipment and Machinery requirement

The Contractor shall have sufficient number of major equipment/machineries having adequate capacity, capable of starting and continuing three work fronts AS **MINIMUM** simultaneously to complete the project successfully on time. The bidders shall submit the execution methodology based on the minimum number of work front indicated in this clause. The minimum number of equipment is indicated in the table below.

Equipment	**Minimum Numbers**	**Capacity**
Jack up Barge Or Piling Gantry	3	The gantry / jack up barge should be suitable to construct at least 2 piles per row simultaneously.
Piling Equipment	6	TWO numbers RCD/ROTARY rig on each Piling Gantry Chisel and bailer equipment may be used over and above minimum specified above RCDs.
Material barge	2	Shall be capable of transporting liners and reinforcement cages.
Floating Barge with crane	2	Suitable for lifting and placing all precast items and pontoon including reinforcement cage and pile liners.
Floating barge automatic concrete batching plant of required capacity	1	30 M^3/ hour
Concrete Batching Plant at Precast Yard	1	30 M^3/ hour

The bidder shall visit the site on or before the pre-bid meeting and familiarize with the site conditions and propose the construction methodology based on the site conditions. The bidder shall study the proposed tender drawings and location and make sure the construction scheme proposed by the bidder is suitable to complete the work as per the schedule.

The employer may allocate a suitable space within 6 km from the work site for the contractors use for precast, storage and working yard including loading point. The transportation of all men, equipment and material from the fabrication site to the work site shall be primarily by means of floating crafts.

3.10. Personnel capabilities

a) Site Execution Personnel

Minimum key personnel for SITE execution work shall be but not limited to as mentioned in below.

- One Resident Project Manager with degree in corresponding discipline of Engineering (Civil Engineering) possessing minimum of 15 years' experience in Marine Works will act as Principal Technical Representative.
- One Safety Officer with degree in corresponding discipline of Engineering (Civil/Mechanical/Safety Engineering) possessing minimum of 10 years' experience in Safety Audit in construction will act as Safety Officer for the project.
- Two Graduate Engineers with degree in Civil Engineering possessing minimum of 10 years' experience will act as a Deputy Engineering Managers.
- Two Graduate Civil Engineers with 3 years' experience and Two Diploma Civil Engineers possessing minimum of 5 years' experience will act as Assistant Site Engineers and Junior Site Engineers respectively.

The technical staff should be available at site at all times during the course of execution of work. He will take instructions from the Engineer in-charge or his nominee as and when required by him.

In case the contractor fails to employ the technical staff as aforesaid he shall be liable to pay to the Authority a reasonable amount not exceeding the sum of Rs 200000/- (Rupees Two lakh only) per month for Resident Project Manager, Rs 150,000/- (Rupees One Lakh Fifty Thousand only) per month for Safety Officer, Rs 100,000/- (Rupees One Lakh only) per month for Graduate Engineers and Rs 75,000/- (Rupees Seventy Five thousand only) per month for Junior Site Engineers.

3.11. Assistance to the employer/ engineer

a) General

The Contractor shall render such assistance with facilities, labour, motor vehicles, boats and materials as at any time may be required by the Employer/Employer's Engineer directly or indirectly, in connection with the works. The costs of such assistance shall be borne by the Contractor, if such assistance is intended by or provided for or specified in the Contract; if any assistance is required by the Employer/Employer's Engineer which is not so

intended and not provided or not specified, then the cost of such assistance shall be borne by the Employer. The assistance to the Employer/Employer's Engineer includes, but not by way of limitation the items in the following clauses.

The contractor shall provide the Employer's Engineer at all times during the contract period sufficient and qualified personnel to assist the Employer's Engineer in his duties to carry out or check any work and / or measurement of works. The contractor is also to provide the Employer's Engineer with necessary survey instruments, computers, any gadgets, ladders, gangways etc., as directed for inspection or measurement of the works by the Employer's Engineer.

b) Facilities / Services provided by Contractor

The contractor shall provide the following facilities for the exclusive use of Employer, Employer's Engineer or their representatives at no extra cost to the Employer for their respective projects:

a) Furnished Air-Conditioned site office of at least two forty feet portacabins one each i.e. cabin for Employer's Engineer and Employer's staff and with one conference room with Executive tables, chairs for about 10 staffs including pantry arrangements.
b) Xerox and scanning facility
c) 2 Nos Desk Computer and 1 Laptop (min 100 GB hard disk capacity) of latest generation including the licensed software (office 365, AutoCAD, and Primavera Software - latest Version) with 2 printers (with A3 Colour printing and A3 Scanning Facility) separately.

The facilities under Sr. No. (a) to (c) shall be taken away by the contractor after completion of the project.

c) Protective & safety items

The Contractor shall provide for the use of Employer/Employer's Engineer and his principals, employees and agents and such other persons as the Employer/Employer's Engineer authorizes, the following protective items throughout the duration of the Works.

- Safety Boots (20 number- various sizes as agreed with the Engineer)
- Wellington Boots with Steel Toe caps (20 number- various sizes as agreed/required by the Engineer)
- Water proof top coats (20 number)
- Hard Hats (20 number)
- Life Jackets (20number)
- Gloves (20 number)
- Ear Protection (20 number)
- Hi-Visibility vests (20 number)
- Eye protection (20 number)

- Any other safety equipment as required by Employer's Engineer in connection with Contract.

d) Provision of Vehicle

The Contractor will have to provide two Air-Conditioned Vehicles (Innova //Ertiga or equivalent) with driver throughout the contract period for the use of Employer / Employer's Engineer on twenty-four hours basis. This vehicle will be used for the duties related to the works of this contract. Vehicle must be in very good condition and to the satisfaction of the Employer. Necessary fuel/oil/driver/maintenance etc will have to borne by the Contractor. During the contract period, in case the Contractor does not provide the Vehicle the employer will engage a vehicle and actual charges incurred by him will be recovered from the contractor's bill.

ARTICLE 4
4. OBLIGATIONS OF THE EMPLOYER

4.1. Obligations of the Employer

4.1.1 The Employer shall, at its own cost and expense, undertake, comply with and perform all its obligations set out in this Agreement or arising hereunder.

4.1.2 The Employer shall be responsible for the correctness of the Scope of the Project, Project Facilities, detailed design and drawings for construction of permanent works, Specifications and Standards and the criteria for testing of the completed Works.

4.1.3 The Employer shall provide to the Contractor:

(a) Access to at least 90% of the site as defined in Schedule-A to the contractor within 30 days from signing agreement.

(b) Issue notice to proceed work after obtaining environmental clearance or other approvals as necessary. The date on which notice to procced with work (NTP) is considered as Appointed date for this agreement.

(c) Good for construction drawings (the "**GFC**") for Civil/Marine works to enable the Contractor to construct the marina in accordance with the Specifications and Standards. Good for Construction drawings means the drawings Approved for Construction (**AFC**) by the competent Authority, sketches, approved by the Employer to be used for construction of project facilities which shall be used by the Contractor. The said drawings (first issue) will be issued to the contractor within 30 days of appointed date. Subsequent revisions due to changes will be intimated either by revisions or by site instruction by the Engineer.

(d) Environmental clearance (EC) for the Project will be obtained by the Employer. The work will be awarded only after receipt of Environmental Clearance for the project.

4.1.4 Delay in providing the access to the site, in accordance with the provisions of Clause 4.1.3 shall entitle the Contractor to Damages in a sum calculated in accordance with the provisions of Clause 8.3 of this Agreement and Time Extension in accordance with the provisions of Clause 10.5 of this Agreement.

4.1.5 Notwithstanding anything to the contrary contained in this Agreement, the Parties expressly agree that the aggregate Damages payable under Clauses 4.1.4, 8.3 and 9.2 shall not exceed 1% (one per cent) of the Contract Price. For the avoidance of doubt, the Damages payable by the Employer under the aforesaid Clauses shall not be additive if they arise concurrently from more than one cause but relate to the same part of the Project. Both the parties agree that payment of these Damages shall be full and final settlement of all claims of the Contractor, and such compensation shall be the sole remedy against delays of the Employer and both parties further agree this as final cure against delays of the Employer.

4.1.6 The Employer agrees to provide support to the Contractor and undertakes to observe, comply with and perform, subject to and in accordance with the provisions of this Agreement and the Applicable Laws, the following:

(a) upon written request from the Contractor, and subject to the Contractor complying with Applicable Laws, provide reasonable support to the Contractor in procuring Applicable Permits required from any Government Instrumentality for implementation of the Project;

(b) upon written request from the Contractor, provide reasonable assistance to the Contractor in obtaining access to all necessary infrastructure facilities and utilities, including water and electricity at rates and on terms no less favourable than those generally available to commercial customers receiving substantially equivalent services;

(c) procure that no barriers that would have a material adverse effect on the works are erected or placed on or about the Project by any Government Instrumentality or persons claiming through or under it, except for reasons of Emergency, national security, law and order or collection of inter-state taxes;

(d) not do or omit to do any act, deed or thing which may in any manner be violative of any of the provisions of this Agreement;

(e) support, cooperate with and facilitate the Contractor in the implementation of the Project in accordance with the provisions of this Agreement; and

(f) upon written request from the Contractor and subject to the provisions of Clause 3.3, provide reasonable assistance to the Contractor and any expatriate personnel of the Contractor or its

Sub-contractors to obtain applicable visas and work permits for the purposes of discharge by the Contractor or its Sub-contractors of their obligations under this Agreement and the agreements with the Sub-contractors.

4.1.7 The Employer will allow the Contractor to use of Port Land for the purpose of setting up of his Site Office, workshop, storage and fabrication area etc for a period not exceeding the duration of the project. An area up to maximum of 1.5 hectare will be made available free of cost based on availability. However, no labour camp shall be permitted inside the harbour area of the Port for security reasons. This working area shall be available on an "as is where is' basis. Levelling, constructing approach roads, laying water and power lines, if required, shall be the responsibility of the Contractor.

4.1.8 Port shall hand over Class-IV units within the MBPA premises depending on the availability. The License fee shall be Rs.7100 per unit/ month. This will be increased by 5% every year. The building will be handed over in „ as is where is" condition and the contractor shall carry out any repairs to make it habitable at their own cost. The water and electricity shall be supplied to the buildings at the prevailing rates of MBPA. Six units of class IIIC quarters at Wadala shall be provided to the supervisory staff on payment of Rs. 7900 per unit / month. The Security Deposit amount equivalent to 3 months licence fee is deemed to be part of the Performance Security. The period of occupation is the contract period. If there is delay in completion of work due to default of the contractor, the above License Fee for the delayed period shall be increased by 50%. The rents for these units, water and electrical charges, in case the contractor opts to take over will be deducted from the next running bills.

4.2. Environmental Clearances

The Employer represents and warrants that the environmental clearances required for Construction of Marina in Mumbai Harbour shall be procured by the Employer prior to the signing of this agreement.

The environmental clearances for the Project have not been obtained yet but the application for the same has been filed with the MOEF.

ARTICLE 5
5. REPRESENTATIONS AND WARRANTIES

5.1. Representations and warranties of the Contractor

The Contractor represents and warrants to the Employer that:

(a) it is duly organised and validly existing under the laws of India, and has full power and Employer to execute and perform its obligations under this Agreement and to carry out the transactions contemplated hereby;

(b) it has taken all necessary corporate and/or other actions under Applicable Laws to authorise the execution and delivery of this Agreement and to validly exercise its rights and perform its obligations under this Agreement;

(c) this Agreement constitutes its legal, valid and binding obligation, enforceable against it in accordance with the terms hereof, and its obligations under this Agreement will be legally valid, binding and enforceable obligations against it in accordance with the terms hereof;

(d) it is subject to the laws of India, and hereby expressly and irrevocably waives any immunity in any jurisdiction in respect of this Agreement or matters arising thereunder including any obligation, liability or responsibility hereunder;

(e) the information furnished in the Bid and as updated on or before the date of this Agreement is true and accurate in all respects as on the date of this Agreement;

(f) the execution, delivery and performance of this Agreement will not conflict with, result in the breach of, constitute a default under, or accelerate performance required by any of the terms of its memorandum and articles of association or any Applicable Laws or any covenant, contract, agreement, arrangement, understanding, decree or order to which it is a party or by which it or any of its properties or assets is bound or affected;

(g) there are no actions, suits, proceedings, or investigations pending or, to its knowledge, threatened against it at law or in equity before any court or before any other judicial, quasi-judicial or other Employer, the outcome of which may result in the breach of this Agreement or which individually or in the aggregate may result in

any material impairment of its ability to perform any of its obligations under this Agreement;

(h) it has no knowledge of any violation or default with respect to any order, writ, injunction or decree of any court or any legally binding order of any Government Instrumentality which may result in any material adverse effect on its ability to perform its obligations under this Agreement and no fact or circumstance exists which may give rise to such proceedings that would adversely affect the performance of its obligations under this Agreement;

(i) it has complied with Applicable Laws in all material respects and has not been subject to any fines, penalties, injunctive relief or any other civil or criminal liabilities which in the aggregate have or may have a material adverse effect on its ability to perform its obligations under this Agreement;

(j) no representation or warranty by it contained herein or in any other document furnished by it to the Employer or to any Government Instrumentality in relation to Applicable Permits contains or will contain any untrue or misleading statement of material fact or omits or will omit to state a material fact necessary to make such representation or warranty not misleading;

(k) no sums, in cash or kind, have been paid or will be paid, by it or on its behalf, to any person by way of fees, commission or otherwise for securing the contract or entering into this Agreement or for influencing or attempting to influence any officer or employee of the Employer in connection therewith;

(l) all information provided by the selected bidder/ members of the Consortium in response to the Request for Qualification and Request for Proposals or otherwise, is to the best of its knowledge and belief, true and accurate in all material respects; and

(m) nothing contained in this Agreement shall create any contractual relationship or obligation between the Employer and any Sub-contractors, designers, consultants or agents of the Contractor.

5.2. Representations and warranties of the Employer

The Employer represents and warrants to the Contractor that:

(a) it has full power and Employer to execute, deliver and perform its obligations under this Agreement and to carry out the transactions

contemplated herein and that it has taken all actions necessary to execute this Agreement, exercise its rights and perform its obligations, under this Agreement;

(b) it has taken all necessary actions under the Applicable Laws to authorise the execution, delivery and performance of this Agreement;

(c) it has the financial standing and capacity to perform its obligations under this Agreement; (d) this Agreement constitutes a legal, valid and binding obligation enforceable against it in accordance with the terms hereof;

(d) it has no knowledge of any violation or default with respect to any order, writ, injunction or any decree of any court or any legally binding order of any Government Instrumentality which may result in any material adverse effect on the Employer's ability to perform its obligations under this Agreement;

(e) it has complied with Applicable Laws in all material respects;

(f) it has good and valid right to the Site and has the power and Employer to grant the access to the site in respect thereof to the Contractor; and

(g) it has procured Right of Way and environment clearances such that the Contractor can commence construction forthwith on 90% (ninety per cent) of the total Project.

5.3. Disclosure

In the event that any occurrence or circumstance comes to the attention of either Party that renders any of its aforesaid representations or warranties untrue or incorrect, such Party shall immediately notify the other Party of the same. Such notification shall not have the effect of remedying any breach of the representation or warranty that has been found to be untrue or incorrect nor shall it adversely affect or waive any obligation of either Party under this Agreement.

ARTICLE 6
6. DISCLAIMER

6.1. Disclaimer

6.1.1 The Contractor acknowledges that prior to the execution of this Agreement, the Contractor has, after a complete and careful examination, made an independent evaluation of the Request for Proposal, Scope of the Project, Good for construction drawings, Specifications and Standards of design, construction and maintenance, Site, local conditions, physical qualities of ground, subsoil and geology, traffic volumes, suitability and availability of access routes to the Site and all information provided by the Employer or obtained, procured or gathered otherwise, and has determined to its satisfaction the accuracy or otherwise thereof and the nature and extent of difficulties, risks and hazards as are likely to arise or may be faced by it in the course of performance of its obligations hereunder. Save as provided in Clause 4.1.2 and Clause 5.2, the Employer makes no representation whatsoever, express, implicit or otherwise, regarding the accuracy, adequacy, correctness, reliability and/or completeness of any assessment, assumptions, statement or information provided by it and the Contractor confirms that it shall have no claim whatsoever against the Employer in this regard.

6.1.2 The Contractor acknowledges and hereby accepts to have satisfied itself as to the correctness and sufficiency of the Contract Price.

6.1.3 The Contractor acknowledges and hereby accepts the risk of inadequacy, mistake or error in or relating to any of the matters set forth in Clause 6.1.1 above and hereby acknowledges and agrees that the Employer shall not be liable for the same in any manner whatsoever to the Contractor, or any person claiming through or under any of them, and shall not lead to any adjustment of Contract Price or Scheduled Completion Date.

6.1.4 The Parties agree that any mistake or error in or relating to any of the matters set forth in Clause 6.1.1 above shall not vitiate this Agreement, or render it voidable.

6.1.5 In the event that either Party becomes aware of any mistake or error relating to any of the matters set forth in Clause 6.1.1 above, that Party shall immediately notify the other Party, specifying the mistake or error.

6.1.6 Except as otherwise provided in this Agreement, all risks relating to the Project shall be borne by the Contractor; and the Employer shall not be liable in any manner for such risks or the consequences thereof.

ARTICLE 7
7. PERFORMANCE SECURITY

7.1. Performance Security

7.1.1 The Contractor shall, for the performance of its obligations hereunder during the Construction Period, provide to the Employer, within **21** (Twenty one) days of the date of issue of Letter of Acceptance by the employer, an irrevocable and unconditional guarantee from a Bank in the form set forth in Schedule-G (the "Performance Security") for an amount equal to 10% (Ten percent) of the Contract Price. The Performance Security shall be valid until 60 (sixty) days after the Defects Liability Period. Until such time the Performance Security is provided by the Contractor pursuant hereto and the same comes into effect, the Bid Security shall remain in force and effect, and upon such provision of the Performance Security, the Employer shall release the Bid Security to the Contractor.

The Contractor shall along with the Performance Security provide to the Employer an irrevocable and unconditional guarantee from a Bank for a sum equivalent to **Rs. ..... crore (Rupees .... crore)** in the form set forth in Schedule-G (the "Additional Performance Security"), to be modified, mutatis mutandis, for this purpose as security to the Employer if the Bid Price offered by the Contractor is lower by more than 15% with respect to the Estimated Project Cost. Additional Performance Security shall be calculated as under:

(i) If the bid price offered by the Contractor is lower than 15% but up to 20% of the Estimated Project Cost, then the Additional Performance Security shall be calculated @20% of the difference in the (a) Estimated Project Cost (as mentioned in RFP)-15% of the Estimated Project Cost and (b) the Bid Price offered by the selected Bidder.

(ii) If the bid price offered by the Contractor is lower than 20% of the Estimated Project Cost, then the Additional Performance Security shall be calculated @30% of the difference in the (a) Estimated Project Cost (as mentioned in RFP)-15% of the Estimated Project Cost and (b) the Bid Price offered by the selected Bidder.

(iii) The Additional Performance Security shall be valid until 28 (twenty eight) days after the issue of Completion Certificate under Article 12 of this Agreement.

(iv) The Additional Performance Security shall not be treated as part of Performance Security.

7.1.2 Notwithstanding anything to the contrary contained in this Agreement,

the Parties agree that in the event of failure of the Contractor to provide the Performance Security in accordance with the provisions of Clause 7.1.1 and within the time specified therein or such extended period as may be provided by the Employer, in accordance with the provisions of Clause 7.1.3, the Employer may encash the Bid Security and appropriate the proceeds thereof

7.1.3 As Damages, and thereupon all rights, privileges, claims and entitlements of the Contractor under or arising out of this Agreement shall be deemed to have been waived by, and to have ceased with the concurrence of the Contractor, and this Agreement shall be deemed to have been terminated by mutual agreement of the Parties.

7.1.4 In the event the Contractor fails to provide the Performance Security within 21 (Twenty one) days from the date of issue of LA, it may seek extension of time for a period not exceeding 30 (Thirty) days on payment of Damages for such extended period in a sum calculated at the rate of 0.01% (zero point zero one per cent) of the Contract Price for each day until the Performance Security is provided. For the avoidance of doubt the agreement shall be deemed cancelled on expiry of additional 30 days' time period and Bid security shall be encashed by the Employer.

7.2. Extension of Performance Security

The Contractor may initially provide the Performance Security for a period of 3 years and 7 months; provided that it shall procure the extension of the validity of the Performance Security, as necessary, at least 2 (two) months prior to the date of expiry thereof. Upon the Contractor providing an extended Performance Security, the previous Performance Security shall be deemed to be released, and the Employer shall return the same to the Contractor within a period of 15 (Fifteen) business days from the date of submission of the extended Performance Security.

7.3. Appropriation of Performance Security

7.3.1 Upon occurrence of a Contractor's Default, the Employer shall, without prejudice to its other rights and remedies hereunder or in law, be entitled to encash and appropriate the relevant amounts from the Performance Security as Damages for such Contractor's Default.

7.3.2 Upon such encashment and appropriation from the Performance Security, the Contractor shall, within 30 (thirty) days thereof, replenish, in case of partial appropriation, to its original level the Performance Security, and in case of appropriation of the entire Performance Security provide a fresh

Performance Security, as the case may be, and the Contractor shall, within the time so granted, replenish or furnish fresh Performance Security as aforesaid failing which the Employer shall be entitled to terminate the Agreement in accordance with Article 19. Upon replenishment or furnishing of a fresh Performance Security, as the case may be, as aforesaid, the Contractor shall be entitled to an additional Cure Period of 30 (thirty) days for remedying the Contractor's Default, and in the event of the Contractor not curing its default within such Cure Period, the Employer shall be entitled to encash and appropriate such Performance Security as Damages, and to terminate this Agreement in accordance with Article 19.

7.3.3 The Additional Performance Security shall be encashed, in case the Contractor cannot achieve the Milestones –II/III/IV … within the prescribed period as per this Agreement due to the fault of the Contractor.

7.4. Release of Performance Security

7.4.1 The Employer shall return the Performance Security to the Contractor within 60 (sixty) days of the later of the expiry of the Defects Liability Period under this Agreement.

Notwithstanding the aforesaid, the Parties agree that the Employer shall not be obliged to release the Performance Security until all Defects identified during the Defects Liability Period have been rectified to the satisfaction of Engineer / Engineer's Representative.

7.4.2 The Employer shall return the Additional Performance Security to the Contractor within 28 (twenty eight) days from the date of issue of Completion Certificate under Article 12 of this Agreement.

7.5. Retention Money

7.5.1 From every payment for Works due to the Contractor in accordance with the provisions of Clause 15.4, the Employer shall deduct 6% (Six per cent) thereof as guarantee money for performance of the obligations of the Contractor during the Construction Period (the "**Retention Money**") subject to the condition that the maximum amount of Retention Money shall not exceed 5% (Five per cent) of the Contract Price.

7.5.2 Upon occurrence of a Contractor's Default, the Employer shall, without prejudice to its other rights and remedies hereunder or in law, be entitled to appropriate the relevant amounts from the Retention Money as Damages for such Contractor's Default.

7.5.3 The Contractor may, upon furnishing an irrevocable and unconditional bank guarantee substantially in the form provided at Annex-II of Schedule-G, require the Employer to refund the Retention Money deducted by the Employer under the provisions of Clause 7.5.1. Provided that the refund hereunder shall be made in tranches of not less than 1% (one per cent) of the Contract Price.

7.5.4 Within 15 (fifteen) days of the date of issue of the Completion Certificate, the Employer shall discharge the bank guarantees furnished by the Contractor under the provisions of Clause 7.5.3 and refund the balance of Retention Money remaining with the Employer after adjusting the amounts appropriated under the provisions of Clause 7.5.2 and the amounts refunded under the provisions of Clause 7.5.3.

7.5.5 The Parties agree that in the event of Termination of this Agreement, the Retention Money and the bank guarantees specified in this Clause 7.5 shall be treated as if they are Performance Security and shall be reckoned as such for the purposes of Termination Payment under Clause 19.6.

ARTICLE 8
8. ACCESS TO THE SITE

8.1. The Site

The site of the Project (the "**Site**") shall comprise the site described in Schedule-A in respect of which the access to the site shall be provided by the Employer to the Contractor. The Employer shall be responsible for:

(a) acquiring and providing access to the Site in accordance with the location finalised by the Employer, free from all encroachments and encumbrances, and free access thereto for the execution of this Agreement; and

(b) obtaining licences and permits for environment clearance for the Project.

8.2. Procurement of the Site

8.2.1. The Employer and the Contractor shall, within 21 (Twenty One) days of the date of this Agreement, inspect the Site and prepare a memorandum containing an inventory of the Site including the vacant and unencumbered land, buildings, structures, road works, trees and any other immovable property on or attached to the Site. Subject to the provisions of Clause 8.2.3, such memorandum shall have appended thereto an appendix (the "**Appendix**") specifying in reasonable detail those parts of the Site to which vacant access has not been given to the Contractor. Signing of the memorandum, in two counterparts (each of which shall constitute an original), by the authorised representatives of the Parties shall be deemed to constitute valid evidence of giving the access to the site to the Contractor for discharging its obligations under and in accordance with the provisions of this Agreement and for no other purpose whatsoever.

Whenever the Employer is ready to hand over any part or parts of the Site included in the Appendix, it shall inform the Contractor, by notice, the proposed date and time such of handing over. The Employer Representative and the Contractor shall, on the date so notified, inspect the specified parts of the Site, and prepare a memorandum containing an inventory of the vacant and unencumbered land, buildings, structures, road works, trees and any other immovable property on or attached to the Site so handed over. Signing of the memorandum, in two counterparts (each of which shall constitute an original), by the authorised representatives of the Parties shall be deemed to constitute valid evidence

of giving the relevant access to the site to the Contractor.

8.2.2. The Employer shall provide the access to the site to the Contractor as included in the Schedule-A within 30 days from the date of this agreement for those parts of the Site referred to therein, or no later than 90 (ninety) days of the Appointed Date for those parts of the Site which have not been specified in Schedule-A, and in the event of delay for any reason other than Force Majeure or breach of this Agreement by the Contractor, it shall extend the contract period to the Contractor in accordance with Clause 8.3.

8.2.3. Notwithstanding anything to the contrary contained in this Clause 8.2, the Employer shall specify the parts of the Site, if any, for which access to the site shall be provided to the Contractor on the dates specified in Schedule-A. Such parts shall also be included in the Appendix prepared in pursuance of Clause 8.2.1.

8.3. Remedy for delay in handing over the Site

8.3.1. In the event the access to the site to any part of the Site is not provided by the Employer on or before the date(s) specified in Clause 8.2 for any reason other than Force Majeure or breach of this Agreement by the Contractor, the Employer shall extend the contract period accordingly and no other compensation is payable.

8.3.2. Notwithstanding anything to the contrary contained in this Agreement, the Contractor expressly agrees that Works on all parts of the Site for which access to the site is granted within 90 (ninety) days of the Appointed Date, or with respect to the parts of the Site provided in Schedule-A, no later than the date(s) specified therein, as the case may be, shall be completed before the Scheduled Completion Date and shall not qualify for any Time Extension under the provisions of Clause 8.3.1.

8.3.3. Notwithstanding anything to the contrary contained in this Agreement, the Employer may at any time withdraw any Works forming part of this Agreement, subject to such Works not exceeding an aggregate value, such value to be determined in accordance with Schedule-H, equal to 10(ten) percent of the Contract Price. Provided that if any Works cannot be undertaken because the requisite clearances or approvals for commencing construction of Works therein have not been given within 240 (two hundred and forty) days of the Appointed date, the affected Works shall be deemed to be withdrawn under the provisions of this Clause 8.3.3 unless the Parties agree to the contrary, and such Works shall not be computed for the purposes of the aforesaid ceiling of 10% (ten

per cent) hereunder.

8.3.4. In the event of withdrawal of Works under Clause 8.3.3, the Contract Price shall be reduced by an amount equal to 90 (ninety) per cent of the value of the Works withdrawn and the Contractor shall not be entitled to any other compensation or Damages for the withdrawal of Works. Provided that if any Works are withdrawn after commencement of the Construction of such works, the Employer shall pay to the Contractor 110% (one hundred and ten per cent) of the fair value of the work done, as assessed by the Engineer / Engineer's Representative:

8.4. Site to be free from Encumbrances

Subject to the provisions of Clause 8.2, the Site shall be made available by the Employer to the Contractor pursuant hereto free from all Encumbrances and occupations and without the Contractor being required to make any payment to the Employer on account of any costs, compensation, expenses and charges for the acquisition and use of such Site for the duration of the Project Completion Schedule. For the avoidance of doubt, it is agreed that the existing rights of way, easements, privileges, liberties and appurtenances to the Site shall not be deemed to be Encumbrances. It is further agreed that, unless otherwise specified in this Agreement, the Contractor accepts and undertakes to bear any and all risks arising out of the inadequacy or physical condition of the Site.

8.5. Protection of Site from encroachments

On and after signing the memorandum and/or subsequent memorandum referred to in Clause 8.2.1, and until the issue of the Completion Certificate, the Contractor shall maintain a round-the-clock vigil over the Site and shall ensure and procure that no encroachment thereon takes place. During the Construction Period, the Contractor shall protect the Site from any and all occupations, encroachments or Encumbrances, and shall not place or create nor permit any Sub-contractor or other person claiming through or under the Agreement to place or create any Encumbrance or security threat over all or any part of the Site or the Project Assets, or on any rights of the Contractor therein or under this Agreement, save and except as otherwise expressly set forth in this Agreement. In the event of any encroachment or occupation on any part of the Site, the Contractor shall report such encroachment or occupation forthwith to the Employer and undertake its removal at its own cost and expenses.

8.6. Special/temporary Right of Way

Access to the site is primarily through the new dock Road towards JRE tank terminals Pvt. Ltd adjacent to the Victoria dock. The proposed marina is located in the vicinity of Victoria dock location. Precaution shall be taken by Contractor for access through the existing facilities and all permits related to site access shall be taken and cost associated with same shall be part of his bid.

The Contractor shall bear all costs and charges for any special or temporary right of way required by it in connection with access to the Site or precast yard. The Contractor shall obtain at its cost such facilities on or outside the Site as may be required by it for the purposes of the Project and the performance of its obligations under this Agreement.

8.7. Access to the Employer and the Engineer / Engineer's representative

8.7.1. The access to the site given to the Contractor hereunder shall always be subject to the right of access of the Employer and the Engineer / Engineer's Representative and their employees and agents for inspection, viewing and exercise of their rights and performance of their obligations under this Agreement.

8.7.2. The Contractor shall ensure, subject to all relevant safety procedures, that the Employer has un-restricted access to the Site during any emergency situation, as decided by the Engineer / Engineer's Representative.

8.8. Geological and archaeological finds

It is expressly agreed that mining, geological or archaeological rights do not form part of this Agreement with the Contractor for the Works, and the Contractor hereby acknowledges that it shall not have any mining rights or interest in the underlying minerals, fossils, antiquities, structures or other remnants or things either of particular geological or archaeological interest and that such rights, interest and property on or under the Site shall vest in and belong to the Employer or the concerned Government Instrumentality. The Contractor shall take all reasonable precautions to prevent its workmen or any other person from removing or damaging such interest or property and shall inform the Employer forthwith of the discovery thereof and comply with such instructions as the concerned Government Instrumentality may reasonably give for the removal of such property. For the avoidance of doubt, it is agreed that any reasonable expenses incurred by the Contractor hereunder shall be reimbursed by the Employer. It is also agreed that the Employer shall procure that the instructions hereunder are issued by the concerned Government Instrumentality within a reasonable period.

ARTICLE 9
9. UTILITIES, OBSTRUCTIONS AND HAZARDOUR AREA

9.1. Existing utilities and roads

Notwithstanding anything to the contrary contained herein, the Contractor shall ensure that the respective entities owning the existing roads, right of way, level crossings, structures, or utilities on, under or above the Site are enabled by it to keep them in continuous satisfactory use, if necessary, by providing suitable temporary diversions with the Employer of the controlling body of that road, right of way or utility.

9.2. Shifting of obstructing utilities

The Contractor shall, in accordance with Applicable Laws and with assistance of the Employer, cause shifting of any utility (including electric lines, water pipes and telephone cables) to an appropriate location or alignment, if such utility or obstruction adversely affects the execution of Works or Maintenance of the Project in accordance with this Agreement. The actual cost of such shifting, as approved and communicated by the entity owning the utility, shall be paid by the Contractor and reimbursed by the Employer to the Contractor. In the event of any delay in such shifting by the entity owning the utility beyond a period of 180 (one hundred and eighty) days from the date of notice by the Contractor to the entity owning the utility and to the Employer, the Contractor shall not be entitled to any compensation as specified in Clause 8.3.1 for the period of delay, and shall be entitled only for a Time Extension in accordance with Clause 10.5 for and in respect of the part(s) of the Works affected by such delay; provided that if the delays involve any time overlaps, the overlaps shall not be additive.

9.3. New utilities

9.3.1. The Contractor shall allow, subject to such conditions as the Employer may specify, access to, and use of the Site for laying telephone lines, water pipes, electric cables or other public utilities. Where such access or use causes any financial loss to the Contractor, it may require the user of the Site to pay compensation or damages as per Applicable Laws. For the avoidance of doubt, it is agreed that use of the Site under this Clause 9.3 shall not in any manner relieve the Contractor of its obligation to construct and maintain the Project in accordance with this Agreement and any damage caused by such use shall be restored forthwith at the cost of the Employer.

9.3.2. In the event the construction of any Works is affected by a new utility or works undertaken in accordance with this Clause 9.3, the Contractor

shall be entitled to a reasonable Time Extension as determined by the Engineer / Engineer's Representative.

9.4. *Obstructions*

9.4.1. The proposed marina is planned at the nearby vicinity of existing New dock and cross island. Any obstruction to work due to existing structures, pipelines and utilities shall be verified prior to the commencement of work and communicated to the Employer in advance. Construction shall not commence until unless agreed upon by the Employer / Engineer in writing for any modification to the existing facilities. Any alternate plan, drawings and work program or alignment proposed by the contractor shall be reviewed by the Engineer and approved and such changes shall not be construed as variation to the scope of works and requirement of any equipment for conducting such works shall be part of this bid. No cost whatsoever shall be paid on this account to the contractor.

9.5. Working in crowded area

9.5.1. The proposed marina is planned at the nearby vicinity of existing JRE tank terminal Pvt. Ltd. and may require piling and welding works in location close proximity to the working JRE tank terminal crowded with vehicle movement. The working equipment of the contractor shall not obstruct the daily routine work of the adjacent terminal. A detailed work program shall be submitted by the contractor to avoid such circumstances and planned activity in the vicinity shall be carried out to avoid stoppage of work due to this account. No time extension due to any delay caused by existing terminal operation shall be given.

ARTICLE 10
10. CONSTRUCTION OF PROJECT FACILITIES

10.1. Obligations prior to commencement of Works

10.1.1. Within 30 (thirty) days of the Appointed Date, the Contractor shall:

(a) appoint its representative, duly authorised to deal with the Employer in respect of all matters under or arising out of or relating to this Agreement;

(b) appoint a Project Manager who will head the Contractor's engineering unit and shall be responsible for liaising with Employer in obtaining all necessary drawings for Construction and carry out all necessary preparatory works;

(c) undertake and perform all such acts, deeds and things as may be necessary or required before commencement of Works under and in accordance with this Agreement, the Applicable Laws and Applicable Permits; and

(d) make its own arrangements for quarrying of materials needed for the Project under and in accordance with the Applicable Laws and Applicable Permits.

10.1.2. The Employer shall, within 30 (thirty) days of the date appointed date, appoint an engineer (**the "Engineer / Engineer's Representative**") to discharge the functions and duties specified in this Agreement, and shall notify to the Contractor the name, address and the date of appointment of the Engineer / Engineer's Representative forthwith.

10.1.3. Within 30 (thirty) days of the Appointed Date, the Contractor shall submit to the Employer and the Engineer / Engineer's Representative a programme (the **"Programme")** for the Works, developed using networking techniques giving the following details:

Part I Contractor's organisation for the Project, the general methods and arrangements for construction, environmental management plan in compliance with the conditions stipulated in the Environmental clearance letter by MoEF, Quality Assurance Plan and safety plan covering safety of users and workers during construction, Contractor's key personnel and equipment.

Part II Contractor's plan for the construction engineering in accordance with clause 10.2.3 including list of deliverables such

as design, drawings and procurement specifications etc.

Part III Programme for completion of all stages of construction given in Schedule-H and Project Milestones of the Works as specified in Project Completion Schedule set forth in Schedule-J. The Programme shall include:

(a) the order in which the Contractor intends to carry out the Works, including the anticipated timing of design and stages of Works;

(b) the periods for reviews under Clause 10.2;

(c) the sequence and timing of inspections and tests specified in this Agreement.

The Contractor shall submit a revised programme whenever the previous programme is inconsistent with the actual progress or with the Contractor's obligations.

10.1.4. The Contractor shall verify, on the basis of the Approved for Construction (AFC) Drawings issued to him in accordance with Clause 10.2.2, and provide to the Engineer / Engineer's Representative, bill of quantities of various items of work specified in Schedule-H comprising the Scope of the Project. The Parties expressly agree that these details shall form the basis for estimating the interim payments for the Works in accordance with the provisions of Clause 15.2. However, payment will be made only for the quantities of work completed and certified by Engineer / Engineer Representative. For the avoidance of doubt, the sum of payments to be computed in respect of all the items of work shall not exceed the Contract Price or it may be adjusted in accordance with the provisions of this Agreement.

10.1.5. The Contractor shall appoint a safety officer (the "**Safety Officer**") to carry out safety audit of the Project in accordance with the Applicable Laws and Good Industry Practice. The Safety Officer shall be appointed after proposing to the Employer a panel of three names of qualified and experienced firms from whom the Employer may choose one to be the Safety Officer. Provided, however, that if the panel is not acceptable to the Employer and the reasons for the same are furnished to the Contractor, the Contactor shall propose to the Employer a revised panel of three names from the firms empaneled as Safety Officers by the Ministry of Shipping for obtaining the consent of the Employer. The Contractor shall also obtain the consent of the Employer for the key personnel of the Safety Officer who shall have adequate experience and qualifications in safety audit of the Port projects. The Employer shall, within 15 (fifteen) days of receiving a proposal from the Contractor hereunder, convey its decision, with reasons, to the Contractor, and if

no such decision is conveyed within the said period, the Contractor may proceed with engaging of the Safety Officer.

10.1.6. The safety audit pursuant to Clause 10.1.5 shall be carried out by the Safety Officer in respect of all such design details that have a bearing on safety of Users. The recommendations of the Safety Officer shall be incorporated in the design of the Project facilities and the Contractor shall forward to the Engineer / Engineer's Representative a certificate to this effect together with the recommendations of the Safety Officer. In the event that any works required by the Safety Officer shall fall beyond the scope of Schedule-B, Schedule-C or Schedule-D, the Contractor shall make a report thereon and seek the instructions of the Employer for Change in Scope. For the avoidance of doubt, the Safety Officer to be engaged by the Contractor shall be independent of the design and implementation team of the Contractor.

10.2. Design and Drawings

10.2.1. Detailed design for the Project Facilities has been carried out by the Employer. The Good for Construction (GFC) drawings will be issued to the contractor within 30 (thirty) days of submission of load test results for the initial pile load tests and subsequent drawings for superstructure works will be issued when found appropriate for the smooth execution of works.

10.2.2. Detailed design of the proposed Marina has been carried out by the Design Consultant appointed by the Employer. Layout drawings, General arrangement drawings (GADs) and details were issued for the purpose of tendering. The tender drawings will be revised incorporating changes envisaged due to queries received on or before pre-bid meeting and the same shall be issued as Approved for Construction (AFC) drawings only to the successful bidder after the signing of agreement. Subsequently, the AFC drawings for pile foundations and superstructure civil work may be revised based on site condition, seabed condition, soil layers, and hard rock layers or any changes sought by the employer or the design consultant during the course of the project execution. Such changes shall not be construed as variation to scope of work. The pile termination level indicated in the AFC drawings are design depths and actual termination shall be decided upon using the criteria specified in the drawings. Contractor shall study the criteria before bidding and shall make sure the contractor proposed equipment is suitable to establish the required pile termination levels.

10.2.3. In respect of the Contractor's obligations with respect to the design and Drawings for the Project as set forth in Schedule-I, the following shall apply:

(a) The AFC drawings issued to the contractor will not be revised at the request of the contractor to suit his construction methods or ease of construction. Such request shall not be entertained as it will have impact on the strength of permanent structures. No modification to the dimensions of permanent structure is permissible. No openings for cables and pipes are permitted in permanent structures. Contractor shall plan all such services within the space provided.

(b) Contractor shall carry out Construction Engineering and prepare all the design, calculations, specifications and drawings whether pertaining to temporary or permanent which are specifically mentioned in the scope of works, AFC drawings and specifications in conformity with the Scope of the Project, the Specifications and Standards and the Applicable Laws; The residual engineering may include but not limited to the following.

i. Setting out of works based on preconstruction survey coordinates carried out by the Contractor and preparation of drawings and benchmarks / levels.
ii. Preparation of drawings and calculations for construction enabling work such as clearing of earth, filling, trenching, slope stability, etc.
iii. Design and detailing of Piling Gantry and frame.
iv. Design and detailing of Jackup and its piling equipment
v. Design and drawings for Floating Pontoon for transportation and erection of men and materials.
vi. Design and detailing of Temporary or permanent supports to pile, pile muff, precast elements, in-situ works, shuttering, piping supports etc.
vii. Bar bending schedule, mix design and reinforcement cage stability calculations etc.
viii. Design, drawings and specifications of test pile, anchor pile, Pile testing frame, loading frame and test methods
ix. Design and detailing of pile liner fabrication, lifting, joining and driving scheme.
x. Design and detailing of reinforcement cage including joining of longitudinal bars during lifting and handling.
xi. Design and detailing of lifting frame for Lifting of precast

elements.

xii. Design of Construction equipment support foundations.

xiii. Any other works to complete the project facility that has not been detailed in the AFC drawings.

(c) Within 15 (fifteen) days of the receipt of the engineering Drawings, specifications, datasheets and calculations, the Engineer / Engineer's Representative shall review the same and convey its observations to the Contractor with particular reference to their conformity or otherwise with the Scope of the Project and the Specifications and Standards. The Contractor shall not be obliged to wait for the observations of the Engineer / Engineer's Representative on the Drawings submitted pursuant hereto beyond the said period of 15 (fifteen) days and may begin or continue works at its own discretion and risk; Provided, however that in case of a major structure or item that may affect the integrity of the proposed scheme, the aforesaid period of 15 (fifteen) days may be extended up to 30 (thirty) days;

(d) the Contractor warrants that its designers, consultants, engineers, including any third parties engaged by it, shall have the required experience and capability in accordance with clause 3.10 and it shall indemnify the Employer against any damage, expense, liability, loss or claim, which the Employer might incur, sustain or be subject to arising from any breach of the Contractor's design responsibility and/or warranty set out in this Clause.

10.2.4. Any cost or delay in construction arising from review by the Engineer / Engineer's Representative shall be borne by the Contractor.

10.2.5. Civil/Marine Works shall be executed in accordance with the AFC Drawings provided by the Engineer / Engineer's Representative and engineering drawings provided by the Contractor in accordance with the provisions of Clause 10.2.3(b) and the observations of the Engineer / Engineer's Representative thereon as communicated pursuant to the provisions of Clause 10.2.3 (c). Such Drawings shall not be amended or altered without prior written notice to the Engineer / Engineer's Representative. If a Party becomes aware of an error or defect of a technical nature in the design or Drawings, that Party shall promptly give notice to the other Party of such error or defect.

10.2.6. Within 90 (ninety) days of the Project Completion Date, the Contractor

shall furnish to the Employer and the Engineer / Engineer's Representative, a complete set of as-built Drawings, in 2 (two) hard copies and in micro film form or in such other medium as may be acceptable to the Employer, reflecting the actually constructed of the buildings and structures forming part of Project Facilities.

10.3. Construction

10.3.1. The Contractor shall construct the Project Facilities as specified in Schedule-B and Schedule-C, and in conformity with the Specifications and Standards set forth in Schedule-D. The Contractor shall be responsible for the correct positioning of all parts of the Works, and shall rectify any error in the positions, levels, dimensions or alignment of the Works. The 30 months (Thirty Months) from the Appointed Date shall be the scheduled completion date (the "**Scheduled Completion Date**") and the Contractor agrees and undertakes that the construction shall be completed on or before the Scheduled Completion Date, including any extension thereof.

10.3.2. The Contractor shall construct the Project Facilities in accordance with the Project Completion Schedule set forth in Schedule-J. In the event that the Contractor fails to achieve any Project Milestone or the Scheduled Completion Date within a period of 30 (thirty) days from the date set forth in Schedule-J, unless such failure has occurred due to Force Majeure or for reasons solely attributable to the Employer, it shall pay Damages to the Employer of a sum calculated at the rate of 0.05% (zero point zero five percent) of the Threshold limit provided under respective milestones for delay of each day reckoned from the date specified in Schedule –J and until such Project Milestone is achieved or the Works are completed; provided that if the period for any or all Project Milestones or the Scheduled Completion Date is extended in accordance with the provisions of this Agreement, the dates set forth in Schedule-J shall be deemed to be modified accordingly and the provisions of this Agreement shall apply as if Schedule-J has been amended as above; provided further that in the event the Works are completed within or before the Scheduled Completion Date including any Time Extension, applicable for that work or section, the Damages paid under this Clause 10.3.2 shall be refunded by the Employer to the Contractor, but without any interest thereon. For the avoidance of doubt, it is agreed that recovery of Damages under this Clause 10.3.2 shall be without prejudice to the rights of the Employer under this Agreement including the right of Termination thereof. The Parties further agree that Time Extension hereunder shall only be reckoned for and in respect of the affected

works as specified in Clause 10.5.2.

10.3.3. The Employer shall notify the Contractor of its decision to impose Damages in pursuance of the provisions of this Clause 10.3. Provided that no deduction on account of Damages shall be effected by the Employer without notifying the Contractor of its decision to impose the Damages, and taking into consideration the representation, if any, made by the Contractor within 20 (twenty) days of such notice. The Parties expressly agree that the total amount of Damages under Clause 10.3.2 shall not exceed 10% (ten percent) of the Contract Price.

10.3.4. Construction sequence planned for the project is described in this section. The Contractor shall follow the sequence described herein unless otherwise directed by the employer / Engineer / Engineer in charge due to any future operational issues. Contractor shall prepare the execution methodology and equipment / marine spread based on the sequence provided herein. However, Employer reserves the right to modify the sequence at time during the project.

(a) Approach Trestle (Parallel activity)
(b) Breakwater (multiple Workfront, Parallel activity)
(c) Dredging (By others, after partial handover of the piled breakwater)
(d) Pontoon and Guide piles (after completion of dredging)

Contractor shall submit a detailed schedule for consideration by the employer to fit the schedule of dredging with other contractor suitably before the other works such as pontoon and guide pin piles are installed.

10.4. Changes to seabed strata and pile alignment

10.4.1. Report of the Geotechnical Investigation studies carried out at the project site is provided as part of the tender. The pile termination levels in the tender and construction drawings have been finalised based on the said report. The substrata in the region comprise of soft marine clay underlain by a mixture of stiff marine clay and sand which, in turn, is underlain by layers of completely weathered, highly weathered, moderately weathered, lightly weathered, and sound amygdaloidal basalt. The depth of the underlaying weathered rock and basalt (intact) may vary along the length and width of site. Engineer or Engineer's Representative may instruct the contractor to change the pile termination levels as required to satisfy the design requirement during execution of piles. It is the responsibility of the contractor to evaluate the seabed strata and finalise the required equipment. No extra

payment in this regard for changes to pile termination level in lieu of seabed strata / rock strata changes shall be allowed. Decision of Engineer is final in this regard.

10.4.2. The design of marine structure especially the pile foundation has been completed considering the requirement for the project facilities and the prevailing seabed conditions at site. The alignment of pile including spacing, locations and size has been derived considering the above requirements. However, the same may vary due to site conditions, underlying seabed strata changes, obstructions due to existing pipelines, structures, underground obstacles and any unforeseen issue at site. Such changes to the alignment of pile, location of pile, spacing or diameter shall not constitute change to the scope and warrant change of marine spread such as piling gantry, barges, boat, piling equipment and crane. No extra payment whatsoever shall be permitted for such changes. Payment will be made items specified in the BOQ only.

10.5. Extension of time for completion

10.5.1. Without prejudice to any other provision of this Agreement for and in respect of extension of time, the Contractor shall be entitled to extension of time in the Project Completion Schedule (the **"Time Extension")** to the extent that completion of any Project Milestone is or will be delayed by any of the following, namely:

(a) delay in providing access to the site, specified in Clause 4.1.4; Change of Scope (unless an adjustment to the Scheduled Completion Date has been agreed under Article 13);

(b) occurrence of a Force Majeure Event;

(c) any delay, impediment or prevention caused by or attributable to the Employer, the Employer's personnel or the Employer's other contractors on the Site; and

(d) any other cause or delay which entitles the Contractor to Time Extension in accordance with the provisions of this Agreement.

10.5.2. The Contractor shall, no later than 15 (fifteen) business days from the occurrence of an event or circumstance specified in Clause 10.5.1, inform the Engineer / Engineer's Representative by notice in writing, with a copy to the Employer, stating in reasonable detail with

supporting particulars, the event or circumstances giving rise to the claim for Time Extension in accordance with the provisions of this Agreement. Provided that the period of 15 (fifteen) business days shall be calculated from the date on which the Contractor became aware, or should have become aware, of the occurrence of such an event or circumstance.

Provided further that notwithstanding anything to the contrary contained in this Agreement, Time Extension shall be due and applicable only for the Works which are affected by the aforesaid events or circumstances and shall not in any manner affect the Project Completion Schedule for and in respect of the Works which are not affected hereunder.

10.5.3. In the event of the failure of the Contractor to issue to the Engineer / Engineer's Representative a notice in accordance with the provisions of Clause 10.5.2 within the time specified therein, the Contractor shall not be entitled to any Time Extension and shall forfeit its right for any such claims in future. For the avoidance of doubt, in the event of failure of the Contractor to issue notice as specified in this clause 10.5.3, the Employer shall be discharged from all liability in connection with the claim.

10.5.4. The Engineer / Engineer's Representative shall, on receipt of the claim in accordance with the provisions of Clause 10.5.2, examine the claim expeditiously within the time frame specified herein. In the event the Engineer / Engineer's Representative requires any clarifications to examine the claim, the Engineer / Engineer's Representative shall seek the same within 15 (fifteen) days from the date of receiving the claim. The Contractor shall, on receipt of the communication of the Engineer / Engineer's Representative requesting for clarification, furnish the same to the Engineer / Engineer's Representative within 10 (ten) days thereof. The Engineer / Engineer's Representative shall, within a period of 60 (sixty) days from the date of receipt of such clarifications, forward in writing to the Contractor its determination of Time Extension.

Provided that, when determining each extension of time under this Clause 10.5, the Engineer / Engineer's Representative shall review previous determinations and may increase, but shall not decrease, the total Time Extension.

10.5.5. If the event or circumstance giving rise to the notice has a continuing effect:

(a) a fully detailed claim shall be considered as interim; the Contractor shall, no later than 10 (ten) days after the close of each month, send further interim claims specifying the accumulated delay, the extension of time claimed, and such further particulars as the Engineer / Engineer's Representative may reasonably require; and

(b) The Contractor shall send a final claim within 30 (thirty) days after the effect of the event or the circumstance ceases.

Upon receipt of the claim hereunder, the Engineer / Engineer's Representative shall examine the same in accordance with the provisions of Clause 10.5.4 within a period of 60 (sixty) days of the receipt thereof.

10.6. Incomplete Works

In the event the Contractor fails to complete the Works in accordance with the Project Completion Schedule, including any Time Extension granted under this Agreement, the Contractor shall endeavour to complete the balance work expeditiously and shall pay Damages to the Employer in accordance with the provisions of Clause 10.3.2 for delay of each day until the Works are completed in accordance with the provisions of this Agreement. Recovery of Damages under this Clause shall be without prejudice to the rights of the Employer under this Agreement including the right to termination under Clause 19.1.

10.7. Operating Manual

No later than 60 (sixty) days prior to the Project Completion Date, the Contractor shall, in consultation with the Engineer / Engineer's Representative, evolve an Operating manual (the **"Operating Manual"**) for the Project facilities and equipment in conformity with the Specifications and Standards, safety requirements and Good Industry Practice, and shall provide 5 (five) copies thereof to the Engineer / Engineer's Representative. The Engineer / Engineer's Representative shall review the Operating Manual within 15 (fifteen) days of its receipt and communicate its comments to the Contractor for necessary modifications, if any.

ARTICLE 11
11. QUALITY ASSURANCE, MONITORING AND SUPERVISION

11.1. Quality of Materials and workmanship

The Contractor shall ensure that the Construction, Materials and workmanship are in accordance with the requirements specified in this Agreement, Specifications and Standards and Good Industry Practice.

11.2. Quality control system

11.2.1. The Contractor shall establish a quality control mechanism to ensure compliance with the provisions of this Agreement (the **"Quality Assurance Plan"** or **"QAP"**).

11.2.2. The Contractor shall, within 30 (thirty) days of the Appointed Date, submit to the Engineer / Engineer's Representative its Quality Assurance Plan which shall include the following:

(a) organisation, duties and responsibilities, procedures, inspections and documentation;
(b) quality control mechanism including sampling and testing of Materials, test frequencies, standards, acceptance criteria, testing facilities, reporting, recording and interpretation of test results, approvals, check list for site activities, and proforma for testing and calibration in accordance with the Specifications for concrete works and Good Industry Practice; and
(c) internal quality audit system.

The Engineer / Engineer's Representative shall convey its comments to the Contractor within a period of 21 (twenty-one) days of receipt of the QAP stating the modifications, if any, required, and the Contractor shall incorporate those in the QAP to the extent required for conforming with the provisions of this Clause 11.2.

11.2.3. The Contractor shall procure all documents, apparatus and instruments, fuel, consumables, water, electricity, labour, Materials, samples, and qualified personnel as are necessary for examining and testing the Project Assets and workmanship in accordance with the Quality Assurance Plan.

11.2.4. The cost of testing of Construction, Materials and workmanship under this Article 11 shall be borne by the Contractor.

11.3. Methodology

The Contractor shall, at least 15 (fifteen) days prior to the commencement of the construction, submit to the Engineer / Engineer's Representative for review, the methodology proposed to be adopted for executing the Works, giving details of equipment to be deployed, vessel movement near the existing jetties especially the operational new dock and measures for ensuring safety. The Engineer / Engineer's Representative shall complete the review and convey its comments to the Contractor within a period of 10 (ten) days from the date of receipt of the proposed methodology from the Contractor.

11.4. Inspection and technical audit by the Employer

The Employer or any representative authorised by the Employer in this behalf may inspect and review the progress and quality of the construction and issue appropriate directions to the Engineer / Engineer's Representative and the Contractor for taking remedial action in the event the Works are not in accordance with the provisions of this Agreement.

11.5. External technical audit

At any time during construction, the Employer may appoint an external technical auditor to conduct an audit of the quality of the Works. The findings of the audit, to the extent accepted by the Employer, shall be notified to the Contractor and the Engineer / Engineer's Representative for taking remedial action in accordance with this Agreement. The Contractor shall provide all assistance as may be required by the auditor in the conduct of its audit hereunder. Notwithstanding anything contained in this Clause 11.5, the external technical audit shall not affect any obligations of the Contractor or the Engineer / Engineer's Representative under this Agreement.

11.6. Inspection of construction records

The Employer shall have the right to inspect the records of the Contractor relating to the Works.

11.7. Monthly progress reports

During the Construction Period, the Contractor shall, no later than 10 (ten) days after the close of each month, furnish to the Employer and the Engineer / Engineer's Representative a monthly report on progress of the Works and shall promptly give such other relevant information as may be required by the Engineer / Engineer's Representative.

11.8. Site records book

For the purpose of quick communication between the Employer's Engineer and the contractor, site books shall be maintained at site office in the manner as described below:

Any communication, relating to the works may be conveyed through records in the Site Books, such as communication from one party to the other shall be deemed to have been adequately served. Each site book shall have machine numbered pages in triplicate and shall be carefully maintained and preserved by the contractor and shall be kept in the Office of the Employer's Engineer. Any instruction or order which the Employer's Engineer may like to issue to the Contractor may be recorded by him in the Site Book and two copies thereof taken by him for his record.

11.9. Inspection

11.9.1. The Engineer / Engineer's Representative and its authorised representative shall at all reasonable times:

(a) have full access to all parts of the Site and to all places from which natural Materials are being obtained for use in the Works; and

(b) during production, manufacture and construction at the Site and at the place of production, be entitled to examine, inspect, measure and test the Materials and workmanship, and to check the progress of manufacture of Materials.

11.9.2. The Contractor shall give the Engineer / Engineer's Representative and its authorized agents access, facilities and safety equipment for carrying out their obligations under this Agreement.

11.9.3. The Engineer / Engineer's Representative shall submit a monthly inspection report (the "**Inspection Report**") to the Employer and the Contractor bringing out the results of inspections and the remedial action taken by the Contractor in respect of Defects or deficiencies. For the avoidance of doubt, such inspection or submission of Inspection Report by the Engineer / Engineer's Representative shall not relieve or absolve the Contractor of its obligations and liabilities under this Agreement in any manner whatsoever.

11.10. Samples

The Contractor shall submit the following samples of Materials and relevant

information to the Engineer / Engineer's Representative for pre-construction review:

(a) manufacturer's test reports and standard samples of manufactured Materials; and

(b) samples of such other Materials as the Engineer / Engineer's Representative may require.

11.11. Tests

11.11.1. For determining that the Works conform to the Specifications and Standards, the Engineer / Engineer's Representative shall require the Contractor to carry out or cause to be carried out tests, at such time and frequency and in such manner as specified in this Agreement, and in accordance with Good Industry Practice for quality assurance. The tests shall be done by the Contractor in the presence of the Engineer / Engineer's Representative on number of tests prescribed for each category or type of test for quality control by the Contractor.

11.11.2. In the event that results of any tests conducted under this Clause 11.11 establish any Defects or deficiencies in the Works, the Contractor shall carry out remedial measures and furnish a report to the Engineer / Engineer's Representative in this behalf. The Engineer / Engineer's Representative shall require the Contractor to carry out or cause to be carried out tests to determine that such remedial measures have brought the Works into compliance with the Specifications and Standards, and the procedure shall be repeated until such Works conform to the Specifications and Standards. For the avoidance of doubt, the cost of such tests and remedial measures in pursuance thereof shall be solely borne by the Contractor.

11.12. Examination of work before *covering* up

In respect of the work which the Engineer / Engineer's Representative is entitled to examine, inspect, measure and/or test before it is covered up or put out of view or any part of the work is placed thereon, the Contractor shall give notice to the Engineer / Engineer's Representative whenever any such work is ready and before it is covered up. The Engineer / Engineer's Representative shall then either carry out the examination, inspection or testing without unreasonable delay, or promptly give notice to the Contractor that the Engineer / Engineer's Representative does not require to do so. Provided, however, that if any work is of a continuous nature where it is not possible or prudent to keep it uncovered or incomplete, the Contractor shall notify the schedule of carrying out such work

to give sufficient opportunity, not being less than 3 (three) business days" notice, to the Engineer / Engineer's Representative to conduct its inspection, measurement or test while the work is continuing. Provided further that in the event the Contractor receives no response from the Engineer / Engineer's Representative within a period of 3 (three) business days from the date on which the Contractor's notice hereunder is delivered to the Engineer / Engineer's Representative, the Contractor shall be entitled to assume that the Engineer / Engineer's Representative would not undertake the said inspection.

11.13. Rejection

If, as a result of an examination, inspection, measurement or testing, any Plant, Materials, design or workmanship is found to be defective or otherwise not in accordance with the provisions of this Agreement, the Engineer / Engineer's Representative shall reject the Plant, Materials, design or workmanship by giving notice to the Contractor, with reasons. The Contractor shall then promptly make good the Defect and ensure that the rejected item complies with the requirements of this Agreement. If the Engineer / Engineer's Representative requires the Plant, Materials, design or workmanship to be retested, the tests shall be repeated under the same terms and conditions, as applicable in each case. If the rejection and retesting cause the Employer to incur any additional costs, such cost shall be recoverable by the Employer from the Contractor; and may be deducted by the Employer from any monies due to be paid to the Contractor.

11.14. Remedial work

11.14.1. Notwithstanding any previous test or certification, the Engineer / Engineer's Representative may instruct the Contractor to:

(a) remove from the Site and replace any Plant or Materials which are not in accordance with the provisions of this Agreement;

(b) remove and re-execute any work which is not in accordance with the provisions of this Agreement and the Specification and Standards; and

(c) execute any work which is urgently required for the safety of the Project facilities, whether because of an accident, unforeseeable event or otherwise; provided that in case of any work required on account of a Force Majeure Event, the provisions of Clause 17.6 shall apply.

11.14.2. If the Contractor fails to comply with the instructions issued by the Engineer / Engineer's Representative under Clause 11.14.1, within

the time specified in the Engineer / Engineer's Representatives notice or as mutually agreed, the Engineer / Engineer's Representative may advise the Employer to have the work executed by another agency. The cost so incurred by the Employer for undertaking such work shall, without prejudice to the rights of the Employer to recover Damages in accordance with the provisions of this Agreement, be recoverable from the Contractor and may be deducted by the Employer from any monies due to be paid to the Contractor.

11.15. Delays during construction

Without prejudice to the provisions of Clause 10.3.2, in the event the Contractor does not achieve any of the Project Milestones or the Engineer / Engineer's Representative shall have reasonably determined that the rate of progress of Works is such that Completion of the Project is not likely to be achieved by the end of the Scheduled Completion Date, it shall notify the same to the Contractor, and the Contractor shall, within 15 (fifteen) days of such notice, by a communication inform the Engineer / Engineer's Representative in reasonable detail about the steps it proposes to take to expedite progress and the period within which it shall achieve the Project Completion Date.

11.16. Quality control records and Documents

The Contractor shall hand over to the Engineer / Engineer's Representative a copy of all its quality control records and documents before the Completion Certificate is issued pursuant to Clause 12.2.

11.17. Video recording

During the Construction Period, the Contractor shall provide to the Employer for every calendar quarter, a video recording, which will be compiled into a 3 (three)-hour compact disc or digital video disc, as the case may be, covering the status and progress of Works in that quarter. The video recording shall be provided to the Employer no later than 15 (fifteen) days after the close of each quarter after the Appointed Date.

11.18. Suspension of unsafe Construction Works

11.18.1. Upon recommendation of the Engineer / Engineer's Representative to this effect, the Employer may by notice require the Contractor to suspend forthwith the whole or any part of the Works if, in the reasonable opinion of the Engineer / Engineer's Representative, such work threatens the safety of the Users and pedestrians.

11.18.2. The Contractor shall, pursuant to the notice under Clause 11.18.1, suspend the Works or any part thereof for such time and in such manner as may be specified by the Employer and thereupon carry out remedial measures to secure the safety of suspended works, the Users and pedestrians. The Contractor may by notice require the Engineer / Engineer's Representative to inspect such remedial measures forthwith and make a report to the Employer recommending whether or not the suspension hereunder may be revoked. Upon receiving the recommendations of the Engineer / Engineer's Representative, the Employer shall either revoke such suspension or instruct the Contractor to carry out such other and further remedial measures as may be necessary in the reasonable opinion of the Employer, and the procedure set forth in this Clause 11.18 shall be repeated until the suspension hereunder is revoked.

11.18.3. Subject to the provisions of Clause 17.6, all reasonable costs incurred for maintaining and protecting the Works or part thereof during the period of suspension (the "**Preservation Costs**"), shall be borne by the Contractor; provided that if the suspension has occurred as a result of any breach of this Agreement by the Employer, the Preservation Costs shall be borne by the Employer.

11.18.4. If suspension of Works is for reasons not attributable to the Contractor, the Engineer / Engineer's Representative shall determine any Time Extension to which the Contractor is reasonably entitled.

ARTICLE 12
12. COMPLETION CERTIFICATE

12.1. Tests on completion

12.1.1. At least 30 (thirty) days prior to the likely completion of the Project, or a Section thereof, the Contractor shall notify the Engineer / Engineer's Representative of its intent to subject the Project or a Section thereof, to Tests. The date and time of each of the Tests shall be determined by the Engineer / Engineer's Representative in consultation with the Contractor and notified to the Employer who may designate its representative to witness the Tests. The Contractor shall either conduct the Tests as directed by the Engineer / Engineer's Representative or provide such assistance as the Engineer / Engineer's Representative may reasonably require for conducting the Tests. In the event of the Contractor and the Engineer / Engineer's Representative failing to mutually agree on the dates for conducting the Tests, the Contractor shall fix the dates by giving not less than 10 (ten) days' notice to the Engineer / Engineer's Representative.

12.1.2. All Tests shall be conducted in accordance with Schedule-K. The Engineer / Engineer's Representative shall either conduct or observe, monitor and review the Tests conducted by the Contractor, as the case may be, and review the results of the Tests to determine compliance of the Project or a Section thereof, with Specifications and Standards and if it is reasonably anticipated or determined by the Engineer / Engineer's Representative during the course of any Test that the performance of the Project or Section or any part thereof, does not meet the Specifications and Standards, it shall have the right to suspend or delay such Test and require the Contractor to remedy and rectify the Defect or deficiencies. Upon completion of each Test, the Engineer / Engineer's Representative shall provide to the Contractor and the Employer copies of all Test data including detailed Test results. For the avoidance of doubt, it is expressly agreed that the Engineer / Engineer's Representative may require the Contractor to carry out or cause to be carried out additional Tests, in accordance with Good Industry Practice, for determining the compliance of the Project or Section thereof with the Specifications and Standards.

12.2. Provisional Certificate

12.2.1. Subject to the provisions of Clause 12.2.5, upon completion of all Works forming part of the Project, save and except the Works for which Time Extension has been granted under Clause 10.5, the Engineer / Engineer's Representative shall, at the request of the Contractor, issue

a provisional certificate of completion substantially in the form set forth in Schedule-L (the "**Provisional Certificate**") if the Tests for and in respect of the completed Works are successful. The Provisional Certificate shall have appended thereto a list of outstanding items of work (the "**Punch List**") that need to be completed in accordance with the provisions of this Agreement. The Contractor undertakes to complete the minor outstanding items of works in respect of those Sections of the Project for which the Provisional Certificate has been issued, within a period of 30 (thirty) days of the date of Provisional Certificate, and those parts of the Works in respect of which Time Extension has been granted, within the extended period thereof. For the avoidance of doubt, the Parties agree that the Punch List shall include all Works for which Time Extension has been granted and shall also include any minor outstanding items of work forming part of the completed Sections if such works do not materially affect the use of the completed Sections for their intended purpose. The Parties further agree that Provisional Certificate shall not be issued if the completed Works cannot be safely and reliably placed in service of the Users thereof.

12.2.2. Upon issue of Provisional Certificate, the provisions of Articles 14 and 17 shall apply to the completed parts of the Project and the property and ownership of all such completed Works shall vest in the Employer.

12.2.3. If the Engineer / Engineer's Representative determines that the Project or any completed part thereof does not conform to the provisions of this Agreement and cannot be safely and reliably placed in operation, it shall forthwith make a report in this behalf and send copies thereof to the Employer and the Contractor and withhold issuance of the Provisional Certificate until the Defects or deficiencies are rectified by the Contractor and Tests are successful in accordance with this Article 12.

12.2.4. Notwithstanding anything to the contrary contained in Clause 12.2.3, the Employer may, at any time after receiving a report from the Engineer / Engineer's Representative under that Clause, direct the Engineer / Engineer's Representative to issue a Provisional Certificate under Clause 12.2.1 and such direction shall be complied forthwith.

12.2.5. No Provisional Certificate shall be issued under the provisions of this Clause 12.2 until the Contractor has submitted valid claims for payment of at least 80% (eighty per cent) of the amount arrived at after reducing the lump sum price specified in Clause 15.1.1 by the amount attributable to works which have been withdrawn under the provisions of Clause 8.3.3. For the avoidance of doubt and by way of illustration, the Parties agree that if the Contract Price specified in Clause 15.1.1 is Rs. 105 cr. (Rs. one hundred and five crore) and the works withdrawn under Clause 8.3.3 have a value of Rs. 5 cr. (Rs. five crore), a Provisional Certificate shall not be issued until valid claims for payment of an amount of Rs. 80 cr. (Rs. eighty crore) have been submitted by the

Contractor in accordance with the provisions of this Agreement. It is further agreed that all price adjustments made in pursuance of Clause 15.6 shall not be reckoned for computation of the claims for payments referred to in this Clause 12.2.5.

12.3. Completion of remaining Works

All items in the Punch List shall be completed by the Contractor in accordance with the provisions of this Agreement. For any delay in their completion other than for the reasons solely attributable to the Employer or due to Force Majeure, the Employer shall be entitled to recover Damages from the Contractor in accordance with the provisions of Clause 10.3.2 of this Agreement.

12.4. Completion Certificate

12.4.1. Upon completion of all Works, including the items specified in the Punch List, and the Engineer / Engineer's Representative determining the Tests to be successful, it shall forthwith issue to the Contractor and the Employer a certificate substantially in the form set forth in Schedule-L (the "**Completion Certificate**").

12.4.2. Upon receiving the Completion Certificate, the Contractor shall remove its equipment, materials, debris and temporary works from the Site within a period of 60 (Sixty) days thereof, failing which the Employer may remove or cause to be removed, such equipment, materials, debris and temporary works and recover from the Contractor an amount equal to 120% (one hundred and twenty per cent) of the actual cost of removal incurred by the Employer.

12.4.3. Without prejudice to the obligations of the Contractor specified in Articles 14 and 17, the property and ownership of all the completed Works forming part of the Project shall vest in the Employer.

12.5. Rescheduling of Tests

If the Engineer / Engineer's Representative certifies to the Employer and the Contractor that it is unable to issue the Completion Certificate or Provisional Certificate, as the case may be, because of events or circumstances on account of which the Tests could not be held or had to be suspended, the Contractor shall be entitled to re-schedule the Tests and hold the same as soon as reasonably practicable.

ARTICLE 13
13. CHANGE OF SCOPE

13.1. Change of Scope

13.1.1. The Employer may, notwithstanding anything to the contrary contained in this Agreement, require the Contractor to make modifications/alterations to the Works ("**Change of Scope**") before the issue of the Completion Certificate either by giving an instruction or by requesting the Contractor to submit a proposal for Change of Scope involving additional cost or reduction in cost. Any such Change of Scope shall be made and valued in accordance with the provisions of this Article 13.

13.1.2. Change of Scope shall mean:

a) Increase or decrease the quantity of any work included in the Contract.
b) change in specifications of any item of Works;
c) commission of any work from the Scope of the Project except under Clause 8.3.3; provided that, subject to Clause 13.5, the Employer shall not omit any work under this Clause in order to get it executed by any other Employer; and / or
d) any additional work, requiring mobilization of Plant, Materials or services which are not included in the Scope of the Project, including any associated Tests on completion of construction.
e) Change the character or quality or kind of any such work.
f) Change the levels, lines, position and dimension of any part of the work.
g) Execute additional work of any kind necessary for the completion of the work.

13.2. Procedure for Change of Scope

13.2.1. In the event of the Employer determining that a Change of Scope is necessary, it may direct the Engineer / Engineer's Representative to issue to the Contractor a notice specifying in reasonable detail the works and services contemplated thereunder (the "**Change of Scope Notice**").

13.2.2. Upon receipt of a Change of Scope Notice, the Contractor shall, with due diligence, provide to the Employer and the Engineer / Engineer's Representative such information as is necessary, together with preliminary documentation in support of:

(a) the impact, if any, which the Change of Scope is likely to have

on the Project Completion Schedule if the works or services are required to be carried out during the Construction Period; and

(b) the options for implementing the proposed Change of Scope and the effect, if any, each such option would have on the costs and time thereof, including the following details:
   i. breakdown of the quantities, unit rates and cost for different items of work;
   ii. proposed design for the Change of Scope; and
   iii. proposed modifications, if any, to the Project Completion Schedule of the Project.

For the avoidance of doubt, the Parties expressly agree that, subject to the provisions of Clause 13.4.2, the Contract Price shall be increased or decreased, as the case may be, on account of Change of Scope.

13.2.3. The Contractor's quotation of costs for the Change of Scope shall be determined on the following principles:

(a) At the rates and prices set out in the Contract if, in the opinion of the Engineer, with the prior approval of the Employer. The same shall be applicable
(b) If the Contract does not contain any rates or prices applicable to the varied work, the rates and prices of similar items in the Contract shall be used as the basis for arriving on such rates,.
(c) For works not similar in nature to the Works being executed, the cost of work shall be derived by the Engineer / Engineer's Representative in accordance with Good Industry Practice in consultation with design consultant and employer.

13.2.4. Upon reaching an agreement, the Employer shall issue an order (the "**Change of Scope Order**") requiring the Contractor to proceed with the performance thereof. In the event that the Parties are unable to agree, the Employer may:

(a) issue a Change of Scope Order requiring the Contractor to proceed with the performance thereof at the rates and conditions approved by the Employer till the matter is resolved in accordance with Article 22; or
(b) proceed in accordance with Clause 13.5.

13.2.5. The provisions of this Agreement, insofar as they relate to Works and Tests, shall apply *mutatis mutandis* to the works undertaken by the Contractor under this Article 13.

13.3. Payment for Change of Scope

Payment for Change of Scope shall be made in accordance with the payment schedule specified in the Change of Scope Order.

13.4. Restrictions on Change of Scope

13.4.1. No Change of Scope shall be executed unless the Employer has issued the Change of Scope Order save and except any Works necessary for meeting any Emergency.

13.4.2. Unless the Parties mutually agree to the contrary, the total value of all Change of Scope Orders shall not exceed 25 (Twenty Five) per cent of the Contract Price. Any increase beyond 25% of contract price and the 25% of the quantity under the respective items of BOQ, then the new rate for such items will be at 110% of the accepted rate of such item.
For illustration:
Contract price : 100 crore
Final completion cost : 127 crore (increase of 27%)
Item no. xxx : Original quantity 100 cum, Accepted rate: Rs. 6000/cum
Quantity on completion : 150 cum.
Then the rate for quantity beyond 125 cum will be Rs.(6000x 110%).

13.4.3. Notwithstanding anything to the contrary in this Article 13, no change made necessary because of any default of the Contractor in the performance of its obligations under this Agreement shall be deemed to be Change of Scope and shall not result in any adjustment of the Contract Price or the Project Completion Schedule.

13.5. Power of the Employer to undertake works

13.5.1. In the event the Parties are unable to agree to the proposed Change of Scope Orders in accordance with Clause 13.2, the Employer may, after giving notice to the Contractor and considering its reply thereto, award such works or services to any person on the basis of open competitive bidding from amongst bidders who are pre-qualified for undertaking the additional work; provided that the Contractor shall have the option of matching the first ranked bid in terms of the selection criteria, subject to payment of 2% (two per cent) of the bid amount to the Employer, and thereupon securing the award of such works or services. For the avoidance of doubt, it is agreed that the Contractor shall be entitled to exercise such option only if it has participated in the bidding process and its bid does not exceed the first ranked bid by more than 10% (ten

percent) thereof. It is also agreed that the Contractor shall provide assistance and cooperation to the person who undertakes the works or services hereunder, but shall not be responsible for rectification of any Defects and/ or maintenance of works carried out by other agencies.

13.5.2. The works undertaken in accordance with this Clause 13.5 shall conform to the Specifications and Standards and shall be carried out in a manner that minimises the disruption in operation of the Project. The provisions of this Agreement, insofar as they relate to Works and Tests, shall apply *mutatis mutandis* to the works carried out under this Clause 13.5.

ARTICLE 14
14. DEFECTS LIABILITY

14.1. Defects Liability Period

14.1.1. The Contractor shall be responsible for all the Defects and deficiencies, except usual wear and tear in the Project or any Section thereof, till the expiry of a period of **1 (one) year** commencing from the date of Provisional Certificate (the "**Defects Liability Period**"). Provided that the Defects Liability Period shall in no case be less than **12 (twelve)** months (**except for floating pontoon it shall be 24 months**) from the date of Completion Certificate for and in respect of works for which Time Extension was granted. Provided further that in the event no Provisional Certificate is issued, the Defects Liability Period shall commence from the date of the Completion Certificate.

14.2. Remedying Defects

The schedule for Repair/rectification of Defects and deficiencies are given in Schedule E (annex-I). The Contractor shall repair or rectify all Defects and deficiencies observed by the Engineer / Engineer's Representative during the Defects Liability Period within the period specified in Schedule E (Annex-I) from the date of notice issued by the Engineer / Engineer's Representative in this behalf, or within such reasonable period as may be determined by the Engineer / Engineer's Representative at the request of the Contractor, in accordance with Good Industry Practice. All the spares pertaining to equipment/ pumps etc. supplied & commissioned by the contractor should be replaced by contractor at his own cost within the defect liability period.

14.3. Cost of remedying Defects

For the avoidance of doubt, any repair or rectification undertaken in accordance with the provisions of Clause 14.2, including any additional testing, shall be carried out by the Contractor at its own risk and cost, to the extent that such rectification or repair is attributable to:

(a) Plant, Materials or workmanship not being in accordance with this Agreement and the Specifications and Standards;
(b) improper maintenance during construction by the Contractor; and/ or
(c) failure by the Contractor to comply with any other obligation under this Agreement.

14.4. Contractor's failure to rectify Defects

In the event that the Contractor fails to repair or rectify such Defect or deficiency within the period specified in Clause 14.2, the Employer shall be entitled to get the same repaired, rectified or remedied at the Contractor's cost so as to make the Project facilities conform to the Specifications and Standards and the provisions of this Agreement. All costs consequent thereon shall, after due consultation with the Employer and the Contractor, be determined by the Engineer / Engineer's Representative. The cost so determined and an amount equal to twenty percent of the cost as Damages shall be recoverable by the Employer from the Contractor and may be deducted by the Employer from any monies due to the Contractor.

14.5. Contractor to search cause

14.5.1. The Engineer / Engineer's Representative may instruct the Contractor to examine the cause of any Defect in the Works or part thereof before the expiry of the Defects Liability Period.

14.5.2. In the event any Defect identified under Clause 14.5.1 is attributable to the Contractor, the Contractor shall rectify such Defect within the period specified by the Engineer / Engineer's Representative, and shall bear the cost of the examination and rectification of such Defect.

14.5.3. In the event such Defect is not attributable to the Contractor, the Engineer / Engineer's Representative shall, after due consultation with the Employer and the Contractor, determine the costs incurred by the Contractor on such examination and notify the same to the Contractor, with a copy to the Employer, and the Contractor shall be entitled to payment of such costs by the Employer.

14.6. Extension of Defects Liability Period

The Defects Liability Period shall be deemed to be extended till the identified Defects under Clause 14.2 have been remedied.

ARTICLE 15
15. PAYMENTS

15.1. Contract Price

15.1.1. The Employer shall make payments to the Contractor for the Works on the basis of the price accepted by the Employer in consideration of the obligations specified in this Agreement for an amount of Rs. … … … … (Rs. … … … … … … … …) (the "**Contract Price**"), which shall be subject to adjustments in accordance with the provisions of this Agreement. The Parties further agree that save and except as provided in this Agreement, the Contract Price shall be valid and effective until issue of Completion Certificate.

15.1.2. The Contract Price includes all duties, **labour Welfare cess**, taxes, royalty, and fees that may be levied in accordance with the laws and regulations in force as on the Base Date on the Contractor's equipment, Plant, Materials and supplies acquired for the purpose of this Agreement and on the services performed under this Agreement. Nothing in this Agreement shall relieve the Contractor from its responsibility to pay any tax including any tax that may be levied in India on profits made by it in respect of this Agreement. However, the Contract Price is exclusive of GST which will be paid by the Employer as per the GST invoice raised by the Contractor. The contractor shall also give undertaking that the receipt of the GST shall be remitted to the Tax authorities as per the extant tax rules.

15.1.3. The Contract Price shall not be adjusted for any change in costs stated in Clause 15.1.2 above, except as stated in Clauses 15.6 and 15.12.

15.1.4. The Contract Price shall not be adjusted to take account of any unforeseen difficulties or costs, unless otherwise provided for in this Agreement.

15.1.5. Unless otherwise stated in this Agreement, the Contract Price covers all the Contractor's obligations for the Works under this Agreement and all things necessary for the Construction and the remedying of any Defects in the Project facilities.

15.1.6. All payments under this Agreement shall be made in Indian Rupees.

15.2. Procedure for estimating the payment for the Works

15.2.1. The Employer shall make interim payments to the Contractor as certified by the Engineer / Engineer's Representative for the civil works based on the monthly measurements. The payments shall be released on completion of a stage, in a length, number or area as specified and valued in accordance with the unit rate assigned to these items and its stage payment specified in Schedule-H.

15.2.2. The Contractor shall base its claim for interim payment for the work completed till the end of the month for which the payment is claimed, valued in accordance with Clause 15.2.1, supported with necessary particulars and documents in accordance with this Agreement.

15.2.3. Any reduction in the Contract Price arising out of Change of Scope or the works withdrawn under Clause 8.3 shall not affect the amounts payable for the items or stage payments thereof which are not affected by such Change of Scope or withdrawal. For avoidance of doubt and by way of illustration, the Parties agree that if the amount assigned to a component is reduced from Rs. 100 crore to Rs. 80 crore owing to Change of Scope or withdrawal of work, the reduction in payment shall be restricted to relevant payments for that component only and the payment due in respect of all other items or stage payments under the component shall not be affected in any manner. The Parties further agree that the adjustments arising out of the aforesaid modifications shall be carried out in a manner that the impact of such modifications is restricted to the said Change of Scope or withdrawal, as the case may be, and does not alter the payments due for and in respect of items or stage payments which do not form part of such Change of Scope or withdrawal.

15.2.4. Applicable labour cess will be deducted from the submitted monthly bill as per provisions of "The building and other construction workers (Regulation of employment and conditions of service) act, 1966 and "The building and other construction workers Welfare cess rules", 1988.

15.3. Monthly Payment/ Progress payment Statement for Works

The Contractor shall submit a statement (the **"Monthly Payment Statement")**, in 3 copies, by the 7th (seventh) day of the month to the Engineer / Engineer's Representative in the form set forth in Schedule-N, showing the amount calculated in accordance with Clause 15.2 to which the Contractor considers himself entitled for completed item(s) of the Works. The Monthly Payment

Statement shall be accompanied with the progress reports and any other supporting documents. The Contractor shall not submit any claim for payment of incomplete part of work element. For avoidance of doubt, work element means items of work as defined in Table H-1 and H-2 in Schedule H of this agreement.

15.4. Monthly Payment for Works

15.4.1. Within 10 (ten) days of receipt of the Monthly Payment Statement from the Contractor pursuant to Clause 15.3, the Engineer / Engineer's Representative shall broadly determine the amount due to the Contractor and recommend the release of the amount so determined as payment against the Monthly Payment Statement, Within 21 (twenty one) days of the receipt of recommendation of the Engineer / Engineer's Representative, the Employer shall make electronic payment directly to the Contractor's bank account.

15.4.2. In cases where there is a difference of opinion as to the value of any payment, the Engineer / Engineer's Representative's view shall prevail and interim payments shall be made to the Contractor on this basis; provided that the foregoing shall be without prejudice to the Contractor's right to raise a Dispute.

15.4.3. The Engineer / Engineer's Representative may, for reasons to be recorded, withhold from payment:

(a) the estimated value of work or obligation that the Contractor has failed to perform in accordance with this Agreement and the Engineer / Engineer's Representative had notified the Contractor; and

(b) the estimated cost of rectification of work done being not in accordance with this Agreement.

15.4.4. Payment by the Employer shall not be deemed to indicate the Employer's acceptance, approval, consent or satisfaction with the work done.

15.5. Time of payment

15.5.1. The Employer shall pay to the Contractor any amount due under any payment certificate issued by the Engineer / Engineer's Representative in accordance with the provisions of this Article 15, or in accordance with any other clause of this Agreement as follows:

(a) Payment shall be made no later than 30 (thirty) days from the date of submission of the measured/Monthly Payment Statement by the Contractor to the Engineer / Engineer's Representative for certification in accordance with the provisions of Clause 15.3 for an IPC; provided that, in the event the IPC is not issued by the Engineer / Engineer's Representative within the aforesaid period of 30 (thirty) days, the Employer shall pay the amount shown in the Contractor's Monthly Payment Statement and any discrepancy therein shall be added to, or deducted from, the next payment certificate issued to the Contractor; and

(b) payment shall be made no later than 30 (thirty) days from the date of submission of the Final Payment Certificate for Works along with the discharge submitted to the Engineer / Engineer's Representative in accordance with the provisions of Clause 15.11 for certification.

15.6. Price adjustment for the Works

15.6.1. The amounts payable to the Contractor for Works shall be adjusted in accordance with the provisions of this Clause 15.6.

15.6.2. Subject to the provisions of Clause 15.6.3, the amounts payable to the Contractor for Works, shall be adjusted in the IPC issued by the Engineer / Engineer's Representative for the increase or decrease in the index cost of inputs for the Works, by the addition or subtraction of the amounts determined by the formulae prescribed in Clause 15.6.4.

15.6.3. To the extent that full compensation for any increase or decrease in costs to the Contractor is not covered by the provisions of this or other Clauses in this Agreement, the costs and prices payable under this Agreement shall be deemed to include the amounts required to cover the contingency of such other increase or decrease of costs and prices.

15.6.4. The Contract Price shall be adjusted for increase or decrease in rates and price of labour, cement, steel, steel plates, fuel and lubricants, and other material inputs in accordance with the principles, procedures and formulae specified below, subject to an upper ceiling of Price adjustment limiting to 15% of the contract price.:

a) Price adjustment shall be applied on completion of the specified stage of the respective item of civil work in accordance with Schedule-H;

b) Adjustment for each item of civil work/stage shall be made separately.

c) The following expressions and meanings are assigned to the value of the work done:

BR = Value of work done for the completion of a stage under the items (Schedule-H)

d) Price adjustment for changes in cost shall be paid in accordance with the following formulae

$$VBR = 0.85BR\left[\frac{PL(LI-LO)}{LO} + \frac{PF(FI-FO)}{FO} + \frac{PM(MI-MO)}{MO} + \frac{PC(CI-CO)}{CO} + \frac{PS(SI-SO)}{SO}\right]$$

VBR = Increase or decrease in the cost of items during the period under consideration due to changes in the rates for relevant components as stated in sub-paragraph (e)

(a) PC, PL, PS and PM are the percentages of cement, labour steel/components (including strands and cables) and other material respectively which shall be 10%, 30% ,30% & 25% respectively.

(b) PF is the percentage of fuel and lubricants for the relevant items which shall be 5%

(c) CI = Average Index for cement published by the Reserve Bank of India under "Index numbers of Wholesale Prices by Group and Sub-Groups (Monthly data) under Group (1) – Non-Metallic Mineral Products Sub-Group (e) - Cement, forming the base of calculation for index of wholesale prices during the period under consideration.

(d) CO = Index for cement published by the Office of the Economic Advisor, Ministry of Industries, Govt. of India, under Index numbers of Wholesale Prices by Group and Sub-Group (Monthly data), forming the base of calculation for index of wholesale prices on the date 21 days preceding the latest date prescribed for the receipt of the Bid.

(e) SI = Average Index for iron and steel published by the office of Economic Advisor, Ministry of Industry, Government of India under "Index numbers of Wholesale Prices by Group and Sub-Groups (Monthly data) under Group– (N) Manufacture of Basic Metals, Sub-Group (d) Mild steel- Long Products Steel Long" forming the base of calculation for index of wholesale prices during the period under consideration.

(f) SO = Average Index for Iron and Steel published by the Reserve Bank of India under "Index numbers of Wholesale Prices by Group and Sub-Groups (Monthly data) under Group (N) – Basic Metals, Sub-Group (d) Mild steel long products" forming the base of calculation for index of prices on the date 21 days preceding the latest date prescribed for the receipt of the Bid.

(g) FO = The price (average of the prices declared by IOC/HPCL/BPCL) of HSD for Mumbai on the Base Date (21 days prior to the latest date for submission of the Bid).

(h) FI = Average Price (average of the prices declared by IOC/HPCL/BPCL) of HSD for Mumbai during the period under consideration.

(i) LO=Basic Consumer Price Index for Mumbai Centre (Base 2001 = 100) for industrial workers declared as per the Labour Gazette, published by the Commissioner of Labour, Government of Maharashtra as prevailing on the Base Date (21 days prior to the latest date for submission of the Bid).

(j) LI = Average Consumer Price Index for Mumbai Centre (Base 2001 = 100) for industrial workers declared by Labour Gazette, published by the Commissioner of Labour, Government of Maharashtra for the period in which the value R of work is done. If the period covered by a bill does not coincide with a calendar month, then weighted time average for the period will be taken for LI.

(k) MO = Wholesale price index for all commodities prepared by the office of Economic Advisor, Ministry of Industry, Government of India as prevailing on the Base Date (21 days prior to the latest date for submission of the Bid).

(l) MI =Average wholesale price index for all commodities prepared by the office of Economic Advisor, Ministry of Industry, Government of India, during the period under consideration. If the period covered by a bill does not coincide with a calendar month, then weighted time average for the period will be taken for MI.

15.7. Restrictions on price adjustment

Price adjustment shall be due and payable only in respect of the stages of Works for which the Stage Payment Statement has been submitted by the Contractor no later than 30 (thirty) days from the date of the applicable Project Milestone or the Scheduled Completion Date, as the case may be, including any Time Extension granted therefor in accordance with the provisions of this Agreement. For the avoidance of doubt, in the event of submission of any Stage Payment Statement after the period specified herein, price adjustment shall be applicable until the date of the respective Project Milestone or the Scheduled Completion Date, as the case may be.

15.8. Final Payment Statement

15.8.1. Within 60 (sixty) days after receiving the Completion Certificate under Clause 12.4, the Contractor shall submit to the Engineer / Engineer's Representative for consideration six copies of a Final Payment

Statement (the "**Final Payment Statement**") for Works, with supporting documents showing in detail, in the form prescribed by the Engineer / Engineer's Representative:

(a) the summary of Contractor's Monthly Payment claims for Works as submitted in accordance with Clause 15.3;
(b) the amounts received from the Employer against each claim; and
(c) any further sums which the Contractor considers due to it from the Employer.

If the Engineer / Engineer's Representative disagrees with or cannot verify any part of the Final Payment Statement, the Contractor shall submit such further information as the Engineer / Engineer's Representative may reasonably require. The Engineer / Engineer's Representative shall deliver to the Employer:

i. an IPC for those parts of the Final Payment Statement which are not in dispute, along with a list of disputed items which shall then be settled in accordance with the provisions of Article 22; or
ii. a Final Payment Certificate in accordance with Clause 15.10 if there are no disputed items.

15.8.2. If the Engineer / Engineer's Representative does not prescribe the form referred to in Clause 15.8.1 within 15 (fifteen) of the date of issue of the Completion Certificate, the Contractor shall submit the statement in such form as it deems fit.

15.9. Discharge

Upon submission of the Final Payment Statement for Works under Clause 15.8, the Contractor shall give to the Employer, with a copy to the Engineer / Engineer's Representative, a written discharge confirming that the total of the Final Payment Statement represents full and final settlement of all monies due to the Contractor in respect of this Agreement for all the Works arising out of this Agreement, except for any monies due to either Party on account of any Defect. Provided that such discharge shall become effective only after the payment due has been made in accordance with the Final Payment Certificate issued pursuant to Clause 15.10.

15.10. Final Payment Certificate

15.10.1. Within 30 (thirty) days after receipt of the Final Payment Statement for Works under Clause 15.8, and the written discharge under Clause

15.9, and there being no disputed items of claim, the Engineer / Engineer's Representative shall deliver to the Employer, with a copy to the Contractor, a final payment certificate (the "**Final Payment Certificate")** stating the amount which, in the opinion of the Engineer / Engineer's Representative, is finally due under this Agreement or otherwise. For the avoidance of doubt, before issuing the Final Payment Certificate, the Engineer / Engineer's Representative shall ascertain from the Employer all amounts previously paid by the Employer and for all sums to which the Employer is entitled, the balance, if any, due from the Employer to the Contractor or from the Contractor to the Employer, as the case may be.

15.10.2. The Employer shall, in accordance with the provisions of Clause 15.5, pay to the Contractor the amount which is stated as being finally due in the Final Payment Certificate.

15.11. Change in law

15.11.1. If as a result of Change in Law, the Contractor suffers any additional costs in the execution of the Works or in relation to the performance of its other obligations under this Agreement, the Contractor shall, within 15 (fifteen) days from the date it becomes reasonably aware of such addition in cost, notify the Employer with a copy to the Engineer / Engineer's Representative of such additional cost due to Change in Law.

15.11.2. If as a result of Change in Law, the Contractor benefits from any reduction in costs for the execution of this Agreement or in accordance with the provisions of this Agreement, either Party shall, within 15 (fifteen) days from the date it becomes reasonably aware of such reduction in cost, notify the other Party with a copy to the Engineer / Engineer's Representative of such reduction in cost due to Change in Law.

15.11.3. The Engineer / Engineer's Representative shall, within 15 (fifteen) days from the date of receipt `of the notice from the Contractor or the Employer, determine any addition or reduction to the Contract Price, as the case may be, due to the Change in Law.

15.12. Correction of Interim Payment Certificates

The Engineer / Engineer's Representative may by an Interim Payment Certificate make any correction or modification in any previous Interim Payment Certificate issued by the Engineer / Engineer's Representative.

15.13. Employer's claims

If the Employer considers itself to be entitled to any payment from the Contractor under any Clause of this Agreement, it shall give notice and particulars to the Contractor 20 (twenty) days before making the recovery from any amount due to the Contractor, and shall take into consideration the representation, if any, made by the Contractor in this behalf, before making such recovery.

ARTICLE 16
16. INSURANCE

16.1. Insurance for Works and Maintenance

16.1.1. The Contractor shall effect and maintain at its own cost the insurances specified in Schedule-O and as per the requirements under the Applicable Laws.

16.1.2. Subject to the provisions of Clause 17.6, the Employer and the Contractor shall, in accordance with its obligations as provided for in this Agreement, be liable to bear the cost of any loss or damage that does not fall within the scope of this Article 16 or cannot be recovered from the insurers.

16.1.3. Subject to the exceptions specified in Clause 16.1.4 below, the Contractor shall, save and except as provided for in this Agreement, fully indemnify, hold harmless and defend the Employer from and against any and all losses, damages, costs, charges and/or claims with respect to:

(a) the death of or injury to any person; or
(b) the loss of or damage to any property (other than the Works);

that may arise out of or in consequence of any breach by the Contractor of this Agreement during the execution of the Works or the remedying of any Defects therein.

16.1.4. Notwithstanding anything stated above in Clause 16.1.3, the Employer shall fully indemnify the Contractor from and against any and all losses, damages, costs, charges, proceedings and/or claims arising out of or with respect to

(a) the use or occupation of land or any part thereof by the Employer;
(b) the right of the Employer to execute the Works, or any part thereof, on, over, under, in or through any land;
(c) the damage to property which is the unavoidable result of the execution and completion of the Works, or the remedying of any Defects therein, in accordance with this Agreement; and
(d) the death of or injury to persons or loss of or damage to property resulting from any act or neglect of the Employer, its agents, servants or other contractors, not being employed by the Contractor.

Provided that, in the event of any injury or damage as a result of the contributory negligence of the Contractor, the Employer shall be liable to indemnify the Contractor from and against any and all losses, damages, costs, charges, proceedings and/or claims to the extent as may be proportionately determined to be the liability of the Employer, its servants or agents or other contractors not associated with the Contractor in such injury or damage.

16.1.5. Without prejudice to the obligations of the Parties as specified under Clauses 16.1.3 and 16.1.4, the Contractor shall maintain or effect such third party insurances as may be required under the Applicable Laws.

16.2. Notice to the Employer

No later than 15 (fifteen) days after the date of this Agreement, the Contractor shall by notice furnish to the Employer, in reasonable detail, information in respect of the insurances that it proposes to effect and maintain in accordance with this Article 16. Within 15 (fifteen) days of receipt of such notice, the Employer may require the Contractor to effect and maintain such other insurances as may be necessary pursuant hereto, and in the event of any difference or disagreement relating to any such insurance, the Dispute Resolution Procedure shall apply.

16.3. Evidence of Insurance Cover

16.3.1. All insurances obtained by the Contractor in accordance with this Article 16 shall be maintained with insurers on terms consistent with Good Industry Practice. Within 10 (ten) days from the Appointed Date, the Contractor shall furnish to the Employer notarised true copies of the certificate(s) of insurance, copies of insurance policies and premia payment receipts in respect of such insurance, and no such insurance shall be cancelled, modified, or allowed to expire or lapse until the expiration of at least 45 (forty-five) days after notice of such proposed cancellation, modification or non-renewal has been delivered by the Contractor to the Employer. The Contractor shall act in accordance with the directions of the Employer. Provided that the Contractor shall produce to the Employer the insurance policies in force and the receipts for payment of the current premia.

16.3.2. The Contractor shall ensure the adequacy of the insurances at all times in accordance with the provisions of this Agreement.

16.4. Remedy for failure to insure

If the Contractor shall fail to effect and keep in force all insurances for which it is responsible pursuant hereto, the Employer shall have the option to either keep in force any such insurances, and pay such premia and recover the costs thereof from the Contractor @120% of the premia paid, or in the event of computation of a Termination Payment, treat an amount equal to the Insurance Cover as deemed to have been received by the Contractor.

16.5. Waiver of subrogation

All insurance policies in respect of the insurance obtained by the Contractor pursuant to this Article 16 shall include a waiver of any and all rights of subrogation or recovery of the insurers thereunder against, inter alia, the Employer, and its assigns, successors, undertakings and their subsidiaries, Affiliates, employees, insurers and underwriters, and of any right of the insurers to any set-off or counterclaim or any other deduction, whether by attachment or otherwise, in respect of any liability of any such person insured under any such policy or in any way connected with any loss, liability or obligation covered by such policies of insurance.

16.6. Contractor's waiver

The Contractor hereby further releases, assigns and waives any and all rights of subrogation or recovery against, inter alia, the Employer and its assigns, undertakings and their subsidiaries, Affiliates, employees, successors, insurers and underwriters, which the Contractor may otherwise have or acquire in or from or in any way connected with any loss, liability or obligation covered by policies of insurance maintained or required to be maintained by the Contractor pursuant to this Agreement (other than third party liability insurance policies) or because of deductible clauses in or inadequacy of limits of any such policies of insurance.

16.7. Cross liabilities

Any such insurance maintained or effected in pursuance of this Article 16 shall include a cross-liability clause such that the insurance shall apply to the Contractor and to the Employer as separately insured.

16.8. Accident or injury to workmen

Notwithstanding anything stated in this Agreement, it is hereby expressly agreed between the Parties that the Employer shall not be liable for or in respect of any damages or compensation payable to any workman or other person in the

employment of the Contractor or Sub-contractor, save and except as for death or injury resulting from any act, omission or default of the Employer, its agents or servants. The Contractor shall indemnify and keep indemnified the Employer from and against all such claims, proceedings, damages, costs, charges, and expenses whatsoever in respect of the above save and except for those acts, omissions or defaults for which the Employer shall be liable.

16.9. Insurance against accident to workmen

The Contractor shall effect and maintain during the Agreement such insurances as may be required to insure the Contractor's personnel and any other persons employed by it on the Project from and against any liability incurred in pursuance of this Article 16. Provided that for the purposes of this Clause 16.9, the Contractor's personnel/any person employed by the Contractor shall include the Sub-contractor and its personnel. It is further provided that, in respect of any persons employed by any Sub-contractor, the Contractor's obligations to insure as aforesaid under this Clause 16.9 shall be discharged if the Sub-contractor shall have insured against any liability in respect of such persons in such manner that the Employer is indemnified under the policy. The Contractor shall require such Sub-contractor to produce before the Employer, when required, such policy of insurance and the receipt for payment of the current premium within 10 (ten) days of such demand being made by the Employer.

16.10. Application of insurance proceeds

The proceeds from all insurance claims, except for life and injury, shall be applied for any necessary repair, reconstruction, reinstatement, replacement, improvement, delivery or installation of the Project facilities and the provisions of this Agreement in respect of construction of works shall apply mutatis mutandis to the works undertaken out of the proceeds of insurance.

16.11. Compliance with policy conditions

Each Party hereby expressly agrees to fully indemnify the other Party from and against all losses and claims arising from its failure to comply with conditions imposed by the insurance policies effected in accordance with this Agreement.

ARTICLE 17
17. FORCE MAJEURE

17.1. Force Majeure

As used in this Agreement, the expression "Force Majeure" or "Force Majeure Event" shall mean occurrence in India of any or all of Non-Political Event, Indirect Political Event and Political Event, as defined in Clauses 17.2, 17.3 and 17.4 respectively, if it affects the performance by the Party claiming the benefit of Force Majeure (the "**Affected Party**") of its obligations under this Agreement and which act or event (i) is beyond the reasonable control of the Affected Party, and (ii) the Affected Party could not have prevented or overcome by exercise of due diligence and following Good Industry Practice, and (iii) has Material Adverse Effect on the Affected Party.

17.2. Non-Political Event

A Non-Political Event shall mean one or more of the following acts or events:

(a) act of God, epidemic, extremely adverse weather conditions, lightning, earthquake, landslide, cyclone, flood, volcanic eruption, chemical or radioactive contamination or ionising radiation, fire or explosion (to the extent of contamination or radiation or fire or explosion originating from a source external to the Site);

(b) strikes or boycotts (other than those involving the Contractor, Sub-contractors or their respective employees/representatives, or attributable to any act or omission of any of them) interrupting supplies and services to the Project for a continuous period of 24 (twenty-four) hours and an aggregate period exceeding 10 (ten) days in an Accounting Year, and not being an Indirect Political Event set forth in Clause 17.3;

(c) any failure or delay of a Sub-contractor but only to the extent caused by another Non-Political Event;

(d) any judgement or order of any court of competent jurisdiction or statutory Employer made against the Contractor in any proceedings for reasons other than (i) failure of the Contractor to comply with any Applicable Law or Applicable Permit, or (ii) on account of breach of any Applicable Law or Applicable Permit or of any contract, or (iii) enforcement of this Agreement, or (iv) exercise of any of its rights under this Agreement by the Employer;

(e) the discovery of geological conditions, toxic contamination or

archaeological remains on the Site that could not reasonably have been expected to be discovered through a site inspection; or

(f) any event or circumstances of a nature analogous to any of the foregoing.

17.3. Indirect Political Event

An Indirect Political Event shall mean one or more of the following acts or events:

(a) an act of war (whether declared or undeclared), invasion, armed conflict or act of foreign enemy, blockade, embargo, riot, insurrection, terrorist or military action, civil commotion or politically motivated sabotage;

(b) industry-wide or State-wide strikes or industrial action for a continuous period of 24 (twenty-four) hours and exceeding an aggregate period of 10 (ten) days in an Accounting Year;

(c) any civil commotion, boycott or political agitation which prevents construction by the Contractor for an aggregate period exceeding 10 (ten) days in an Accounting Year;

(d) any failure or delay of a Sub-contractor to the extent caused by any Indirect Political Event;

(e) any Indirect Political Event that causes a Non-Political Event; or

(f) any event or circumstances of a nature analogous to any of the foregoing.

17.4. Political Event

A Political Event shall mean one or more of the following acts or events by or on account of any Government Instrumentality:

(a) Change in Law, only if consequences thereof cannot be dealt with under and in accordance with the provisions of Clause 15.12;

(b) compulsory acquisition in national interest or expropriation of any Project Assets or rights of the Contractor or of the Sub-Contractors;

(c) unlawful or unauthorised or without jurisdiction revocation of, or refusal to renew or grant without valid cause, any clearance, licence,

permit, authorisation, no objection certificate, consent, approval or exemption required by the Contractor or any of the Sub-contractors to perform their respective obligations under this Agreement; provided that such delay, modification, denial, refusal or revocation did not result from the Contractor's or any Sub-contractor's inability or failure to comply with any condition relating to grant, maintenance or renewal of such clearance, licence, authorisation, no objection certificate, exemption, consent, approval or permit;

(d) any failure or delay of a Sub-contractor but only to the extent caused by another Political Event; or

(e) any event or circumstances of a nature analogous to any of the foregoing.

17.5. Duty to report Force Majeure Event

17.5.1. Upon occurrence of a Force Majeure Event, the Affected Party shall by notice report such occurrence to the other Party forthwith. Any notice pursuant hereto shall include full particulars of:

(a) the nature and extent of each Force Majeure Event which is the subject of any claim for relief under this Article 17 with evidence in support thereof;

(b) the estimated duration and the effect or probable effect which such Force Majeure Event is having or will have on the Affected Party's performance of its obligations under this Agreement;

(c) the measures which the Affected Party is taking or proposes to take for alleviating the impact of such Force Majeure Event; and

(d) any other information relevant to the Affected Party's claim.

17.5.2. The Affected Party shall not be entitled to any relief for or in respect of a Force Majeure Event unless it shall have notified the other Party of the occurrence of the Force Majeure Event as soon as reasonably practicable, and in any event no later than 10 (ten) days after the Affected Party knew, or ought reasonably to have known, of its occurrence, and shall have given particulars of the probable material effect that the Force Majeure Event is likely to have on the performance of its obligations under this Agreement.

17.5.3. For so long as the Affected Party continues to claim to be materially

affected by such Force Majeure Event, it shall provide the other Party with regular (and not less than weekly) reports containing information as required by Clause 17.5.1, and such other information as the other Party may reasonably request the Affected Party to provide.

17.6. Effect of Force Majeure Event on the Agreement

17.6.1. Upon the occurrence of any Force Majeure after the Appointed Date, the costs incurred and attributable to such event and directly relating to this Agreement (the "**Force Majeure costs**") shall be allocated and paid as follows:

(a) upon occurrence of a Non-Political Event, the Parties shall bear their respective Force Majeure costs and neither Party shall be required to pay to the other Party any costs thereof;

(b) upon occurrence of an Indirect Political Event, all Force Majeure costs attributable to such Indirect Political Event, and not exceeding the Insurance Cover for such Indirect Political Event, shall be borne by the Contractor, and to the extent Force Majeure costs exceed such Insurance Cover, one half of such excess amount shall be reimbursed by the Employer to the Contractor for the Force Majeure events; and

(c) upon occurrence of a Political Event, all Force Majeure costs attributable to such Political Event shall be reimbursed by the Employer to the Contractor.

For the avoidance of doubt, Force Majeure costs may include costs directly attributable to the Force Majeure Event, but shall not include debt repayment obligations, if any, of the Contractor.

17.6.2. Save and except as expressly provided in this Article 17, neither Party shall be liable in any manner whatsoever to the other Party in respect of any loss, damage, cost, expense, claims, demands and proceedings relating to or arising out of occurrence or existence of any Force Majeure Event or exercise of any right pursuant hereto.

17.6.3. Upon the occurrence of any Force Majeure Event during the Construction Period, the Project Completion Schedule for and in respect of the affected Works shall be extended on a day for day basis for such period as performance of the Contractor's obligations is affected on account of the Force Majeure Event or its subsisting effects.

17.7. Termination Notice for Force Majeure Event

17.7.1. If a Force Majeure Event subsists for a period of 60 (sixty) days or more within a continuous period of 120 (one hundred and twenty) days, either Party may in its discretion terminate this Agreement by issuing a Termination Notice to the other Party without being liable in any manner whatsoever, save as provided in this Article 17, and upon issue of such Termination Notice, this Agreement shall, notwithstanding anything to the contrary contained herein, stand terminated forthwith; provided that before issuing such Termination Notice, the Party intending to issue the Termination Notice shall inform the other Party of such intention and grant 15 (fifteen) days' time to make a representation, and may after the expiry of such 15 (fifteen) days period, whether or not it is in receipt of such representation, in its sole discretion issue the Termination Notice.

17.8. Termination Payment for Force Majeure Event

17.8.1. In the event of this Agreement being terminated on account of a Non-Political Event, the Termination Payment shall be an amount equal to the sum payable under Clause 19.5.

Provided that in the event Termination occurs during the Maintenance Period, the Engineer / Engineer's Representative shall only determine the value of Works associated with Maintenance.

17.8.2. If Termination is on account of an Indirect Political Event, the Termination Payment shall include:

(a) any sums due and payable under Clause 19.5; and

(b) the reasonable cost, as determined by the Engineer / Engineer's Representative, of the Plant and Materials procured by the Contractor and transferred to the Employer for use in Construction or Maintenance, only if such Plant and Materials are in conformity with the Specifications and Standards;

Provided that in the event Termination occurs during the Maintenance Period, the Engineer / Engineer's Representative shall only determine the value of Works associated with Maintenance.

17.8.3. If Termination is on account of a Political Event, the Employer shall make a Termination Payment to the Contractor in an amount that would be payable under Clause 19.6.2 as if it were an Employer Default.

17.9. Dispute resolution

In the event that the Parties are unable to agree in good faith about the

occurrence or existence of a Force Majeure Event, such Dispute shall be finally settled in accordance with the Dispute Resolution Procedure; provided that the burden of proof as to the occurrence or existence of such Force Majeure Event shall be upon the Party claiming relief and/or excuse on account of such Force Majeure Event.

17.10. Excuse from performance of obligations

If the Affected Party is rendered wholly or partially unable to perform its obligations under this Agreement because of a Force Majeure Event, it shall be excused from performance of such of its obligations to the extent it is unable to perform on account of such Force Majeure Event; provided that:

(a) the suspension of performance shall be of no greater scope and of no longer duration than is reasonably required by the Force Majeure Event;

(b) the Affected Party shall make all reasonable efforts to mitigate or limit damage to the other Party arising out of or as a result of the existence or occurrence of such Force Majeure Event and to cure the same with due diligence; and

(c) when the Affected Party is able to resume performance of its obligations under this Agreement, it shall give to the other Party notice to that effect and shall promptly resume performance of its obligations hereunder.

ARTICLE 18
18. SUSPENSION OF CONTRACTOR'S RIGHTS

18.1. Suspension upon Contractor Default

Upon occurrence of a Contractor Default, the Employer shall be entitled, without prejudice to its other rights and remedies under this Agreement including its rights of Termination hereunder, to (i) suspend carrying out of the Works or Maintenance or any part thereof, and (ii) carry out such Works or Maintenance itself or authorise any other person to exercise or perform the same on its behalf during such suspension (the "**Suspension**"). Suspension hereunder shall be effective forthwith upon issue of notice by the Employer to the Contractor and may extend up to a period not exceeding 90 (ninety) days from the date of issue of such notice.

18.2. Employer to act on behalf of Contractor

During the period of Suspension hereunder, all rights and liabilities vested in the Contractor in accordance with the provisions of this Agreement shall continue to vest therein and all things done or actions taken, including expenditure incurred by the Employer for discharging the obligations of the Contractor under and in accordance with this Agreement shall be deemed to have been done or taken for and on behalf of the Contractor and the Contractor undertakes to indemnify the Employer for all costs incurred during such period. The Contractor hereby licences and sub-licences respectively, the Employer or any other person authorised by it under Clause 18.1 to use during Suspension, all Intellectual Property belonging to or licenced to the Contractor with respect to the Project and its design, engineering, construction and maintenance, and which is used or created by the Contractor in performing its obligations under the Agreement.

18.3. Revocation of Suspension

18.3.1. In the event that the Employer shall have rectified or removed the cause of Suspension within a period not exceeding 60 (sixty) days from the date of Suspension, it shall revoke the Suspension forthwith and restore all rights of the Contractor under this Agreement. For the avoidance of doubt, the Parties expressly agree that the Employer may, in its discretion, revoke the Suspension at any time, whether or not the cause of Suspension has been rectified or removed hereunder.

18.3.2. Upon the Contractor having cured the Contractor Default within a period not exceeding 60 (sixty) days from the date of Suspension, the Employer shall revoke the Suspension forthwith and restore all rights of the Contractor under this Agreement.

18.4. Termination

18.4.1. At any time during the period of Suspension under this Article 18, the Contractor may by notice require the Employer to revoke the Suspension and issue a Termination Notice. The Employer shall, within 15 (fifteen) days of receipt of such notice, terminate this Agreement under and in accordance with Article 19.

18.4.2. Notwithstanding anything to the contrary contained in this Agreement, in the event that Suspension is not revoked within 90 (ninety) days from the date of Suspension hereunder, the Agreement shall, upon expiry of the aforesaid period, be deemed to have been terminated by mutual agreement of the Parties and all the provisions of this Agreement shall apply, *mutatis mutandis*, to such Termination as if a Termination Notice had been issued by the Employer upon occurrence of a Contractor Default.

ARTICLE 19
19. TERMINATION

19.1. Termination for Contractor Default

19.1.1. Save as otherwise provided in this Agreement, in the event that any of the defaults specified below shall have occurred, and the Contractor fails to cure the default within the Cure Period set forth below, or where no Cure Period is specified, then within a Cure Period of 60 (sixty) days, the Contractor shall be deemed to be in default of this Agreement (the "**Contractor Default**"), unless the default has occurred solely as a result of any breach of this Agreement by the Employer or due to Force Majeure. The defaults referred to herein shall include:

(a) the Contractor fails to provide, extend or replenish, as the case may be, the Performance Security in accordance with this Agreement;

(b) subsequent to the replenishment or furnishing of fresh Performance Security in accordance with Clause 7.3, the Contractor fails to cure, within a Cure Period of 30 (thirty) days, the Contractor Default for which the whole or part of the Performance Security was appropriated;

(c) the Contractor does not achieve the latest outstanding Project Milestone due in accordance with the provisions of Schedule-J, subject to any Time Extension, and continues to be in default for 45 (forty five) days;

(d) the Contractor abandons or manifests intention to abandon the PROJECT without the prior written consent of the Employer;

(e) the Contractor fails to proceed with the Works in accordance with the provisions of Clause 10.1 or stops Works and/or the Maintenance for 30 (thirty) days without reflecting the same in the current programme and such stoppage has not been authorised by the Engineer / Engineer's Representative;

(f) the Project Completion Date does not occur within the period specified in Schedule-J for the Scheduled Completion Date, or any extension thereof;

(g) failure to complete the Punch List items within the periods stipulated therefor in Clause 12.2.1;

(h) the Contractor fails to rectify any Defect, the non-rectification of which shall have a Material Adverse Effect on the Project, within the time specified in this Agreement or as directed by the Engineer / Engineer's Representative;

(i) the Contractor subcontracts the Works or any part thereof in violation of this Agreement or assigns any part of the Works or the Maintenance without the prior approval of the Employer;

(j) the Contractor creates any Encumbrance in breach of this Agreement;

(k) an execution levied on any of the assets of the Contractor has caused a Material Adverse Effect;

(l) the Contractor is adjudged bankrupt or insolvent, or if a trustee or receiver is appointed for the Contractor or for the whole or material part of its assets that has a material bearing on the Project;

(m) the Contractor has been, or is in the process of being liquidated, dissolved, wound-up, amalgamated or reconstituted in a manner that would cause, in the reasonable opinion of the Employer, a Material Adverse Effect;

(n) a resolution for winding up of the Contractor is passed, or any petition for winding up of the Contractor is admitted by a court of competent jurisdiction and a provisional liquidator or receiver is appointed and such order has not been set aside within 90 (ninety) days of the date thereof or the Contractor is ordered to be wound up by court except for the purpose of amalgamation or reconstruction; provided that, as part of such amalgamation or reconstruction, the entire property, assets and undertaking of the Contractor are transferred to the amalgamated or reconstructed entity and that the amalgamated or reconstructed entity has unconditionally assumed the obligations of the Contractor under this Agreement; and provided that:

i. the amalgamated or reconstructed entity has the capability and experience necessary for the performance of its obligations under this Agreement; and

ii. the amalgamated or reconstructed entity has the financial standing to perform its obligations under this

Agreement and has a credit worthiness at least as good as that of the Contractor as at the Appointed Date;

(o) any representation or warranty of the Contractor herein contained which is, as of the date hereof, found to be materially false or the Contractor is at any time hereafter found to be in breach thereof;

(p) the Contractor submits to the Employer any statement, notice or other document, in written or electronic form, which has a material effect on the Employer's rights, obligations or interests and which is false in material particulars;

(q) the Contractor has failed to fulfil any obligation, for which failure Termination has been specified in this Agreement; or

(r) the Contractor commits a default in complying with any other provision of this Agreement if such a default causes a Material Adverse Effect on the Project or on the Employer.

19.1.2. Without prejudice to any other rights or remedies which the Employer may have under this Agreement, upon occurrence of a Contractor Default, the Employer shall be entitled to terminate this Agreement by issuing a Termination Notice to the Contractor; provided that before issuing the Termination Notice, the Employer shall by a notice inform the Contractor of its intention to issue such Termination Notice and grant 15 (fifteen) days to the Contractor to make a representation, and may after the expiry of such 15 (fifteen) days, whether or not it is in receipt of such representation, issue the Termination Notice.

19.1.3. After termination of this Agreement for Contractor Default, the Employer may complete the Works and/or arrange for any other entities to do so. The Employer and these entities may then use any Materials, Plant and equipment, Contractor's documents and other design documents made by or on behalf of the Contractor.

19.2. Termination for Employer Default

19.2.1. In the event that any of the defaults specified below shall have occurred, and the Employer fails to cure such default within a Cure Period of 90 (ninety) days or such longer period as has been expressly provided in this Agreement, the Employer shall be deemed to be in default of this Agreement (the "**Employer Default**") unless the default has occurred as a result of any breach of this Agreement by the

Contractor or due to Force Majeure. The defaults referred to herein shall include:

(a) the Employer commits a material default in complying with any of the provisions of this Agreement and such default has a Material Adverse Effect on the Contractor;

(b) the Employer has failed to make payment of any amount due and payable to the Contractor within the period specified in this Agreement;

(c) the Employer has failed to provide, within a period of 180 (one hundred and eighty) days from the Appointed Date, the environmental clearances required for construction;

(d) the Employer repudiates this Agreement or otherwise takes any action that amounts to or manifests an irrevocable intention not to be bound by this Agreement; or

(e) the Engineer / Engineer's Representative fails to issue the relevant Interim Payment Certificate within 60 (sixty) days after receiving a statement and supporting documents.

19.2.2. Without prejudice to any other right or remedy which the Contractor may have under this Agreement, upon occurrence of an Employer Default, the Contractor shall be entitled to terminate this Agreement by issuing a Termination Notice to the Employer; provided that before issuing the Termination Notice, the Contractor shall by a notice inform the Employer of its intention to issue the Termination Notice and grant 15 (fifteen) days to the Employer to make a representation, and may after the expiry of such 15 (fifteen) days, whether or not it is in receipt of such representation, issue the Termination Notice.

If on the consideration of the Employer's representation or otherwise, the contractor does not issue the Termination Notice on such 15th day and prefers to continue with the project, it is deemed that the cause of action of the Termination Notice has been condoned by the Contractor. Hence he forfeits his right to any other remedy on that count.

19.3. Termination for Employer's convenience

Notwithstanding anything stated hereinabove, the Employer may terminate this Agreement for convenience. The termination shall take effect 30 (thirty) days from the date of notice hereunder.

19.4. Requirements after Termination

Upon Termination of this Agreement in accordance with the terms of this Article 19, the Contractor shall comply with and conform to the following:

(a) deliver to the Employer all Plant and Materials which shall have become the property of the Employer under this Article 19;

(b) deliver all relevant records, reports, Intellectual Property and other licences pertaining to the Works, Maintenance, other design documents and in case of Termination occurring after the Provisional Certificate has been issued, the "as built" Drawings for the Works;

(c) transfer and/or deliver all Applicable Permits to the extent permissible under Applicable Laws; and

(d) vacate the Site within 15 (fifteen) days.

19.5. Valuation of Unpaid Works

19.5.1. Within a period of 45 (forty-five) days after Termination under Clause 19.1, 19.2 or 19.3, as the case may be, has taken effect, the Engineer / Engineer's Representative shall proceed in accordance with Clause 15.5 to determine as follows the valuation of unpaid Works (the "**Valuation of Unpaid Works**"):

(a) value of the completed stage of the Works, less payments already made;

(b) reasonable value of the partially completed stages of works as on the date of Termination, only if such works conform with the Specifications and Standards; and

(c) value of Maintenance, if any, for completed months, less payments already made,

and shall adjust from the sum thereof (i) any other amounts payable or recoverable, as the case may be, in accordance with the provisions of this Agreement; and (ii) all taxes due to be deducted at source.

19.5.2. The Valuation of Unpaid Works shall be communicated to the Employer, with a copy to the Contractor, within a period of 30 (thirty) days from the date of Termination.

19.6. Termination Payment

19.6.1. Upon Termination on account of Contractor's Default under Clause 19.1, the Employer shall:

(a) encash and appropriate the Performance Security and Retention Money, or in the event the Contractor has failed to replenish or extend the Performance Security, claim the amount stipulated in Clause 7.1.1, as agreed pre-determined compensation to the Employer for any losses, delays and cost of completing the Works and Maintenance, if any;

(b) encash and appropriate the bank guarantee, if any, for and in respect of the outstanding Advance Payment and interest thereon; and

(c) pay to the Contractor, by way of Termination Payment, an amount equivalent to the Valuation of Unpaid Works after adjusting any other sums payable or recoverable, as the case may be, in accordance with the provisions of this Agreement.

19.6.2. Upon Termination on account of an Employer Default under Clause 19.2 or for Employer's convenience under Clause 19.3, the Employer shall:

(a) return the Performance Security and Retention Money forthwith;

(b) encash and appropriate the bank guarantee, if any, for and in respect of the outstanding Advance Payment; and

(c) pay to the Contractor, by way of Termination Payment, an amount equal to:

i. Valuation of Unpaid Works;

ii. the reasonable cost, as determined by the Engineer / Engineer's Representative, of the Plant and Materials procured by the Contractor and transferred to the Employer for its use, in case the Employer wishes to takeover only if such Plant and Materials are in conformity with the Specifications and Standards;

iii. the reasonable cost of temporary works, as determined by the Engineer / Engineer's Representative; and

iv. 10% (ten per cent) of the cost of the Works and Maintenance that are not commenced or not completed,

and shall adjust from the sum thereof (i) any other amounts payable or recoverable, as the case may be, in accordance with the provisions of this Agreement, and (ii) all taxes due to be deducted at source.

19.6.3. Termination Payment shall become due and payable to the Contractor within 30 (thirty) days of a demand being made by the Contractor to the Employer with the necessary particulars, and in the event of any delay, the Employer shall pay interest at the Base Rate plus 2% (two percent), calculated at quarterly rests, on the amount of Termination Payment remaining unpaid; provided that such delay shall not exceed 90 (ninety) days. For the avoidance of doubt, it is expressly agreed that Termination Payment shall constitute full discharge by the Employer of its payment obligations in respect thereof hereunder.

19.6.4. The Contractor expressly agrees that Termination Payment under this Article 19 shall constitute a full and final settlement of all claims of the Contractor on account of Termination of this Agreement and that it shall not have any further right or claim under any law, treaty, convention, contract or otherwise.

19.7. Other rights and obligations of the Parties

Upon Termination for any reason whatsoever

(a) property and ownership in all Materials, Plant and Works and the Project shall, as between the Contractor and the Employer, vest in the Employer in whole; provided that the foregoing shall be without prejudice to Clause 19.6.

(b) risk of loss or damage to any Materials, Plant or Works and the care and custody thereof shall pass from the Contractor to the Employer; and

(c) the Employer shall be entitled to restrain the Contractor and any person claiming through or under the Agreement from entering upon the Site or any part of the Project except for taking possession of materials, stores, implements, construction plants and equipment of the Contractor, which have not been vested in the Employer in accordance with the provisions of this Agreement.

19.8. Survival of rights

Notwithstanding anything to the contrary contained in this Agreement any Termination pursuant to the provisions of this Agreement shall be without prejudice to the accrued rights of either Party including its right to claim and recover money damages, insurance proceeds, security deposits, and other rights and remedies, which it may have in law or Agreement. All rights and obligations of either Party under this Agreement, including Termination Payments, shall survive the Termination to the extent such survival is necessary for giving effect to such rights and obligations.

ARTICLE 20
20. ASSIGNMENT AND CHARGES

20.1. Restrictions on assignment and charges

This Agreement shall not be assigned by the Contractor to any person, save and except with the prior consent in writing of the Employer, which consent the Employer shall be entitled to decline without assigning any reason.

20.2. Hypothecation of Materials or Plant

Notwithstanding the provisions of Clause 20.1, the Contractor may pledge or hypothecate to its lenders, any Materials or Plant prior to their incorporation in the Works. Further, the Contractor may, by written notice to the Employer, assign its right to receive payments under this Agreement either absolutely or by way of charge, to any person providing financing to the Contractor in connection with the performance of the Contractor's obligations under this Agreement. The Contractor acknowledges that any such assignment by the Contractor shall not relieve the Contractor from any obligations, duty or responsibility under this Agreement.

ARTICLE 21
21. LIABILITY AND INDEMNITY

21.1. General indemnity

21.1.1. The Contractor will indemnify, defend, save and hold harmless the Employer and its officers, servants, agents, Government Instrumentalities and Government owned and/or controlled entities/enterprises, (the "**Employer Indemnified Persons**") against any and all suits, proceedings, actions, demands and third party claims for any loss, damage, cost and expense of whatever kind and nature, whether arising out of any breach by the Contractor of any of its obligations under this Agreement or from any negligence under the Agreement, including any errors or deficiencies in the design documents, or tort or on any other ground whatsoever, except to the extent that any such suits, proceedings, actions, demands and claims have arisen due to any negligent act or omission, or breach or default of this Agreement on the part of the Employer Indemnified Persons.

21.2. Indemnity by the Contractor

21.2.1. Without limiting the generality of Clause 21.1, the Contractor shall fully indemnify, hold harmless and defend the Employer and the Employer Indemnified Persons from and against any and all loss and/or damages arising out of or with respect to:

(a) failure of the Contractor to comply with Applicable Laws and Applicable Permits;

(b) payment of taxes required to be made by the Contractor in respect of the income or other taxes of the Sub-contractors, suppliers and representatives; or

(c) non - payment of amounts due as a result of Materials or services furnished to the Contractor or any of its Sub-contractors which are payable by the Contractor or any of its Sub-contractors.

21.2.2. Without limiting the generality of the provisions of this Article 21, the Contractor shall fully indemnify, hold harmless and defend the Employer Indemnified Persons from and against any and all suits, proceedings, actions, claims, demands, liabilities and damages which the Employer Indemnified Persons may hereafter suffer, or pay by reason of any demands, claims, suits or proceedings arising out of

claims of infringement of any domestic or foreign patent rights, copyrights or other intellectual property, proprietary or confidentiality rights with respect to any materials, information, design or process used by the Contractor or by the Sub-contractors in performing the Contractor's obligations or in any way incorporated in or related to the Project. If in any such suit, action, claim or proceedings, a temporary restraint order or preliminary injunction is granted, the Contractor shall make every reasonable effort, by giving a satisfactory bond or otherwise, to secure the revocation or suspension of the injunction or restraint order. If, in any such suit, action, claim or proceedings, the Project facilities, or any part thereof or comprised therein, is held to constitute an infringement and its use is permanently enjoined, the Contractor shall promptly make every reasonable effort to secure for the Employer a licence, at no cost to the Employer, authorising continued use of the infringing work. If the Contractor is unable to secure such licence within a reasonable time, the Contractor shall, at its own expense, and without impairing the Specifications and Standards, either replace the affected work, or part, or process thereof with non-infringing work or part or process, or modify the same so that it becomes non-infringing.

21.3. Notice and contest of claims

In the event that either Party receives a claim or demand from a third party in respect of which it is entitled to the benefit of an indemnity under this Article 21 (the "**Indemnified Party**") it shall notify the other Party (the "**Indemnifying Party**") within 15 (fifteen) days of receipt of the claim or demand and shall not settle or pay the claim without the prior approval of the Indemnifying Party, which approval shall not be unreasonably withheld or delayed. In the event that the Indemnifying Party wishes to contest or dispute the claim or demand, it may conduct the proceedings in the name of the Indemnified Party, subject to the Indemnified Party being secured against any costs involved, to its reasonable satisfaction.

21.4. Defence of claims

21.4.1. The Indemnified Party shall have the right, but not the obligation, to contest, defend and litigate any claim, action, suit or proceeding by any third party alleged or asserted against such Party in respect of, resulting from, related to or arising out of any matter for which it is entitled to be indemnified hereunder, and reasonable costs and expenses thereof shall be indemnified by the Indemnifying Party. If the Indemnifying Party acknowledges in writing its obligation to indemnify the Indemnified Party in respect of loss to the full extent provided by this Article 21, the Indemnifying Party shall be entitled, at its option, to

assume and control the defence of such claim, action, suit or proceeding, liabilities, payments and obligations at its expense and through the counsel of its choice; provided it gives prompt notice of its intention to do so to the Indemnified Party and reimburses the Indemnified Party for the reasonable cost and expenses incurred by the Indemnified Party prior to the assumption by the Indemnifying Party of such defence. The Indemnifying Party shall not be entitled to settle or compromise any claim, demand, action, suit or proceeding without the prior written consent of the Indemnified Party, unless the Indemnifying Party provides such security to the Indemnified Party as shall be reasonably required by the Indemnified Party to secure the loss to be indemnified hereunder to the extent so compromised or settled.

21.4.2. If the Indemnifying Party has exercised its rights under Clause 21.3, the Indemnified Party shall not be entitled to settle or compromise any claim, action, suit or proceeding without the prior written consent of the Indemnifying Party (which consent shall not be unreasonably withheld or delayed).

21.4.3. If the Indemnifying Party exercises its rights under Clause 21.3, the Indemnified Party shall nevertheless have the right to employ its own counsel, and such counsel may participate in such action, but the fees and expenses of such counsel shall be at the expense of the Indemnified Party, when and as incurred, unless:

(a) the employment of counsel by such party has been authorised in writing by the Indemnifying Party; or

(b) the Indemnified Party shall have reasonably concluded that there may be a conflict of interest between the Indemnifying Party and the Indemnified Party in the conduct of the defence of such action; or

(c) the Indemnifying Party shall not, in fact, have employed independent counsel reasonably satisfactory to the Indemnified Party, to assume the defence of such action and shall have been so notified by the Indemnified Party; or

(d) the Indemnified Party shall have reasonably concluded and specifically notified the Indemnifying Party either:

i. that there may be specific defences available to it which are different from or additional to those available to the Indemnifying Party; or

ii. that such claim, action, suit or proceeding involves or could have a material adverse effect upon it beyond the scope of this Agreement:

Provided that if Sub-clauses (b), (c) or (d) of this Clause 21.4.3 shall be applicable, the counsel for the Indemnified Party shall have the right to direct the defence of such claim, demand, action, suit or proceeding on behalf of the Indemnified Party, and the reasonable fees and disbursements of such counsel shall constitute legal or other expenses hereunder.

21.5. No consequential claims

Notwithstanding anything to the contrary contained in this Article 21, the indemnities herein provided shall not include any claim or recovery in respect of any cost, expense, loss or damage of an indirect, incidental or consequential nature, including loss of profit, except as expressly provided in this Agreement.

21.6. Survival on Termination

The provisions of this Article 21 shall survive Termination.

ARTICLE 22
22. DISPUTE RESOLUTION

22.1. Dispute Resolution

22.1.1. Any dispute, difference or controversy of whatever nature howsoever arising under or out of or in relation to this Agreement (including its interpretation) between the Parties, and so notified in writing by either Party to the other Party (the "**Dispute**") shall, in the first instance, be attempted to be resolved amicably in accordance with the conciliation procedure set forth in Clause 22.2.

22.1.2. The Parties agree to use their best efforts for resolving all Disputes arising under or in respect of this Agreement promptly, equitably and in good faith, and further agree to provide each other with reasonable access during normal business hours to all non-privileged records, information and data pertaining to any Dispute.

22.2. Conciliation

In the event of any Dispute between the Parties, either Party may call upon the Engineer / Engineer's Representative, or such other person as the Parties may mutually agree upon (the "**Conciliator**") to mediate and assist the Parties in arriving at an amicable settlement thereof. Failing mediation by the Conciliator or without the intervention of the Conciliator, either Party may require such Dispute to be referred to the Chairman of the Employer and the Chairman of the Board of Directors of the Contractor for amicable settlement, and upon such reference, the said persons shall meet no later than 7 (seven) business days from the date of reference to discuss and attempt to amicably resolve the Dispute. If such meeting does not take place within the 7 (seven) business day period or the Dispute is not amicably settled within 15 (fifteen) days of the meeting or the Dispute is not resolved as evidenced by the signing of written terms of settlement within 30 (thirty) days of the notice in writing referred to in Clause 22.1.1 or such longer period as may be mutually agreed by the Parties, either Party may refer the Dispute to arbitration in accordance with the provisions of Clause 22.3

22.3. Arbitration

22.3.1. Any Dispute which is not resolved amicably by conciliation, as provided in Clause 22.2, shall be finally settled by arbitration in accordance with the rules of arbitration of the SOCIETY FOR AFFORDABLE REDRESSAL OF DISPUTES (SAROD).

22.3.2. The arbitrators shall make a reasoned award (the "**Award**"). Any Award made in any arbitration held pursuant to this Article 22 shall be final and binding on the Parties as from the date it is made, and the Contractor and the Employer agree and undertake to carry out such Award without delay.

22.3.3. The Contractor and the Employer agree that an Award may be enforced against the Contractor and/or the Employer, as the case may be, and their respective assets wherever situated.

22.3.4. This Agreement and the rights and obligations of the Parties shall remain in full force and effect, pending the Award in any arbitration proceedings hereunder.

22.3.5. In the event the Party against whom the Award has been granted challenges the Award for any reason in a court of law, it shall make an interim payment to the other Party for an amount equal to 75% (seventy-five per cent) of the Award, pending final settlement of the Dispute. The aforesaid amount shall be paid forthwith upon furnishing an irrevocable Bank Guarantee for a sum equal to 120 % (one hundred and twenty per cent) of the aforesaid amount. Upon final settlement of the Dispute, the aforesaid interim payment shall be adjusted and any balance amount due to be paid or returned, as the case may be, shall be paid or returned with interest calculated at the rate of 10% (ten per cent) per annum from the date of interim payment to the date of final settlement of such balance.

22.4. Adjudication by Regulatory Employer, Tribunal or Commission

In the event of constitution of a statutory regulatory Employer, tribunal or commission, as the case may be, with powers to adjudicate upon disputes between the Contractor and the Employer, all Disputes arising after such constitution shall, instead of reference to arbitration under Clause 22.3, be adjudicated upon by such regulatory Employer, tribunal or commission in accordance with the Applicable Law and all references to Dispute Resolution Procedure shall be construed accordingly. For the avoidance of doubt, the Parties hereto agree that the adjudication hereunder shall not be final and binding until an appeal against such adjudication has been decided by an appellate tribunal or court of competent jurisdiction, as the case may be, or no such appeal has been preferred within the time specified in the Applicable Law.

ARTICLE 23
23. MISCELLANEOUS

23.1. Governing law and jurisdiction

This Agreement shall be construed and interpreted in accordance with and governed by the laws of India, and the courts at Mumbai shall have exclusive jurisdiction over matters arising out of or relating to this Agreement.

23.2. Waiver of immunity

Each Party unconditionally and irrevocably:

(a) agrees that the execution, delivery and performance by it of this Agreement constitute commercial acts done and performed for commercial purpose;

(b) agrees that, should any proceedings be brought against it or its assets, property or revenues in any jurisdiction in relation to this Agreement or any transaction contemplated by this Agreement, no immunity (whether by reason of sovereignty or otherwise) from such proceedings shall be claimed by or on behalf of the Party with respect to its assets;

(c) waives any right of immunity which it or its assets, property or revenues now has, may acquire in the future or which may be attributed to it in any jurisdiction; and

(d) consents generally in respect of the enforcement of any judgement or award against it in any such proceedings to the giving of any relief or the issue of any process in any jurisdiction in connection with such proceedings (including the making, enforcement or execution against it or in respect of any assets, property or revenues whatsoever irrespective of their use or intended use of any order or judgement that may be made or given in connection therewith).

23.3. Deleted

23.4. Waiver

23.4.1. Waiver, including partial or conditional waiver, by either Party of any default by the other Party in the observance and performance of any provision of or obligations under this Agreement:-

(a) shall not operate or be construed as a waiver of any other or subsequent default hereof or of other provisions of or obligations under this Agreement;

(b) shall not be effective unless it is in writing and executed by a duly authorised representative of the Party; and

(c) shall not affect the validity or enforceability of this Agreement in any manner.

23.4.2. Neither the failure by either Party to insist on any occasion upon the performance of the terms, conditions and provisions of this Agreement or any obligation thereunder nor time or other indulgence granted by a Party to the other Party shall be treated or deemed as waiver of such breach or acceptance of any variation or the relinquishment of any such right hereunder.

23.5. Liability for review of Documents and Drawings

Except to the extent expressly provided in this Agreement:

(a) no review, comment or approval by the Employer or the Engineer / Engineer's Representative of any Document or Drawing submitted by the Contractor nor any observation or inspection of the construction, of Project facilities nor the failure to review, approve, comment, observe or inspect hereunder shall relieve or absolve the Contractor from its obligations, duties and liabilities under this Agreement, the Applicable Laws and Applicable Permits; and

(b) the Employer shall not be liable to the Contractor by reason of any review, comment, approval, observation or inspection referred to in Sub-clause (a) above.

23.6. Exclusion of implied warranties etc.

This Agreement expressly excludes any warranty, condition or other undertaking implied at law or by custom or otherwise arising out of any other agreement between the Parties or any representation by either Party not contained in a binding legal agreement executed by both Parties.

23.7. Survival

23.7.1. Termination shall:

(a) not relieve the Contractor or the Employer, as the case may be, of any obligations hereunder which expressly or by implication survive Termination hereof; and

(b) except as otherwise provided in any provision of this Agreement expressly limiting the liability of either Party, not relieve either Party of any obligations or liabilities for loss or damage to the other Party arising out of, or caused by, acts or omissions of such Party prior to the effectiveness of such Termination or arising out of such Termination.

23.7.2. All obligations surviving Termination shall only survive for a period of 3 (three) years following the date of such Termination.

23.8. Entire Agreement

This Agreement and the Schedules together constitute a complete and exclusive statement of the terms of the agreement between the Parties on the subject hereof, and no amendment or modification hereto shall be valid and effective unless such modification or amendment is agreed to in writing by the Parties and duly executed by persons especially empowered in this behalf by the respective Parties. All prior written or oral understandings, offers or other communications of every kind pertaining to this Agreement are abrogated and withdrawn. For the avoidance of doubt, the Parties hereto agree that any obligations of the Contractor arising from the Request for Qualification or Request for Proposals, as the case may be, shall be deemed to form part of this Agreement and treated as such.

23.9. Severability

If for any reason whatever, any provision of this Agreement is or becomes invalid, illegal or unenforceable or is declared by any court of competent jurisdiction or any other instrumentality to be invalid, illegal or unenforceable, the validity, legality or enforceability of the remaining provisions shall not be affected in any manner, and the Parties will negotiate in good faith with a view to agreeing to

one or more provisions which may be substituted for such invalid, unenforceable or illegal provisions, as nearly as is practicable to such invalid, illegal or unenforceable provision. Failure to agree upon any such provisions shall not be subject to the Dispute Resolution Procedure set forth under this Agreement or otherwise.

23.10. No partnership

This Agreement shall not be interpreted or construed to create an association, joint venture or partnership between the Parties, or to impose any partnership obligation or liability upon either Party, and neither Party shall have any right, power or Employer to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party.

23.11. Third parties

This Agreement is intended solely for the benefit of the Parties, and their respective successors and permitted assigns, and nothing in this Agreement shall be construed to create any duty to, standard of care with reference to, or any liability to, any person not a Party to this Agreement.

23.12. Successors and assigns

This Agreement shall be binding upon and inure to the benefit of the Parties and their respective successors and permitted assigns.

23.13. Notices

Any notice or other communication to be given by any Party to the other Party under or in connection with the matters contemplated by this Agreement shall be in writing and shall:

(a) in the case of the Contractor, be given by facsimile or e-mail and by letter delivered by hand to the address given and marked for attention of the person set out below or to such other person as the Contractor may from time to time designate by notice to the Employer; provided that notices or other communications to be given to an address outside [Delhi] may, if they are subsequently confirmed by sending a copy thereof by registered acknowledgement due, air mail or by courier, be sent by facsimile or e-mail to the person as the Contractor may from time to time designate by notice to the Employer;

(b) in the case of the Employer, be given by facsimile or e-mail and

by letter delivered by hand and be addressed to the [Chairman] of the Employer with a copy delivered to the Employer's Representative or such other person as the Employer may from time to time designate by notice to the Contractor; provided that if the Contractor does not have an office in [Delhi] it may send such notice by facsimile or e-mail and by registered acknowledgement due, air mail or by courier; and

(c) any notice or communication by a Party to the other Party, given in accordance herewith, shall be deemed to have been delivered when in the normal course of post it ought to have been delivered and in all other cases, it shall be deemed to have been delivered on the actual date and time of delivery; provided that in the case of facsimile or e-mail, it shall be deemed to have been delivered on the working day following the date of its delivery.

23.14. Language

All notices required to be given by one Party to the other Party and all other communications, Documentation and proceedings which are in any way relevant to this Agreement shall be in writing and in English language.

23.15. Counterparts

This Agreement may be executed in two counterparts, each of which, when executed and delivered, shall constitute an original of this Agreement.

23.16. Confidentiality

The Parties shall treat the details of this Agreement as private and confidential, except to the extent necessary to carry out obligations under it or to comply with Applicable Laws. The Contractor shall not publish, permit to be published, or disclose any particulars of the Works in any trade or technical paper or elsewhere without the previous agreement of the Employer.

23.17. 8Copyright and Intellectual Property rights

23.17.1. As between the Parties, the Contractor shall retain the copyright and other intellectual property rights in the Contractor's Documents and other design documents made by (or on behalf of) the Contractor. The Contractor shall be deemed (by signing this Agreement) to give to the Employer a non-terminable transferable non-exclusive royalty-free licence to copy, use and communicate the Contractor's Documents, including making and using modifications of them. This licence shall:

(a) apply throughout the actual or intended working life (whichever is longer) of the relevant parts of the Works,

(b) entitle any person in proper possession of the relevant part of the Works to copy, use and communicate the Contractor's Documents for the purposes of completing, operating, maintaining, altering, adjusting, repairing and demolishing the Works, and

(c) in the case of Contractor's Documents which are in the form of computer programs and other software, permit their use on any computer on the Site and other places as envisaged by this Agreement, including replacements of any computers supplied by the Contractor:

23.17.2. The Contractor's Documents and other design documents made by (or on behalf of) the Contractor shall not, without the Contractor's consent, be used, copied or communicated to a third party by (or on behalf of) the Employer for purposes other than those permitted under this Clause 23.17.

23.17.3. As between the Parties, the Employer shall retain the copyright and other intellectual property rights in this Agreement and other documents made by (or on behalf of) the Employer. The Contractor may, at its cost, copy, use, and obtain communication of these documents for the purposes of this Agreement. They shall not, without the Employer's consent, be copied, used or communicated to a third party by the Contractor, except as necessary for the purposes of the contract.

23.18. Limitation of Liability

23.18.1. Neither Party shall be liable to the other Party for loss of use of any Works, loss of profit, loss of any contract or for any indirect or consequential loss or damage which may be suffered by the other Party in connection with this Agreement, save and except as provided under Articles 19 and 17.

23.18.2. The total liability of one Party to the other Party under and in accordance with the provisions of this Agreement, save and except as provided in Articles 19 and 21, shall not exceed the Contract Price. For the avoidance of doubt, this Clause shall not limit the liability in any case of fraud, deliberate default or reckless misconduct by the defaulting Party.

ARTICLE 24
24. CONTRACT MANAGEMENT FRAMEWORK (CMF)

24.1 Contract Management Framework (CMF)

The execution of Development of Marina in Mumbai will be based on Contract Management Framework (CMF). The framework consists of the following arrangement.

i. The Mumbai Port Authority (MbPA) will administer the project. As a representative of Board of MbPA, Major Port Authorities Act, 2021 (MPA, Act 2021) acting through its Chairman, Deputy Chairman or the Chief Engineer or any other officers so nominated by the Board.

ii. To administer the Contracts under the Project, MbPA will be the contractual employer; the Employer has a Project Implementation Unit (PIU) to be in-charge for the contract. This PIU is headed by a Chief Engineer assisted by appropriate professional and support staff. The Chief Engineer will act on behalf of the "Employer".

iii. Project Management Consultant, PMC (Department of Ocean Engineering, IIT Madras) shall be the "Engineer" for the project. 'Resident Engineer / Project Manager' of Project Management Consultant shall be resident at the project site and act as "Engineer's Representative". The Engineer shall have a team of experienced professional and support staff for the execution of the Consultancy Service under the Contract including liaising with headquarters of consultant as and when required.

iv. The Project Management Consultant will make the necessary measurements and control the quality of works. The Project Management Consultant shall make all engineering decisions required during the implementation of the Contract. However, the Project Management Consultant shall seek prior approval of the Employer regarding the following.

(a) Variation order with financial implications.
(b) Variations in work quantities which attract for fixation of rates.
(c) Sanction of additional items, sums or costs and variations of rates and prices.
(d) Approval of subletting of any part of works.
(e) Approval of any extension of contractual time limits.
(f) Stopping and/or termination of the Contract for Works.

(g) Modification to Civil/marine works design which has been frozen by third party Design Consultant

24.2 Terms of Reference for PMC

The Terms of Reference for the Employers' Engineer (the "**TOR**") shall substantially conform with Schedule M.

24.3 Appointment of Government entity as PMC

Notwithstanding anything to the contrary contained in this Schedule, the Employer may in its discretion appoint a government-owned entity as the Engineer; provided that such entity shall be a body corporate having as one of its primary functions the provision of consulting, advisory and supervisory services for engineering projects; provided further that a government-owned entity which is owned or controlled by the Employer shall not be eligible for appointment as Engineer.

ARTICLE 25
25. DEFINITIONS

25.1. Definitions

In this Agreement, the following words and expressions shall, unless repugnant to the context or meaning thereof, have the meaning hereinafter respectively assigned to them:

"**Accounting Year**" means the financial year commencing from the first day of April of any calendar year and ending on the thirty-first day of March of the next calendar year;

"

"**Affected Party**" shall have the meaning set forth in Clause 17.1;

"**Affiliate**" means, in relation to either Party {and/or Members}, a person who controls, is controlled by, or is under the common control with such Party {or Member} (as used in this definition, the expression "control" means, with respect to a person which is a company or corporation, the ownership, directly or indirectly, of more than 50% (fifty per cent) of the voting shares of such person, and with respect to a person which is not a company or corporation, the power to direct the management and policies of such person, whether by operation of law or by contract or otherwise);

"Agreement" means this Agreement, its Recitals, the Schedules hereto and any amendments thereto made in accordance with the provisions contained in this Agreement;

"Applicable Laws" means all laws, brought into force and effect by GOI or the State Government including rules, regulations and notifications made thereunder, and judgements, decrees, injunctions, writs and orders of any court of record, applicable to this Agreement and the exercise, performance and discharge of the respective rights and obligations of the Parties hereunder, as may be in force and effect during the subsistence of this Agreement;

"Applicable Permits" means all clearances, licences, permits, authorisations, no objection certificates, consents, approvals and exemptions required to be obtained or maintained under Applicable Laws in connection with the construction, operation and maintenance of the Project during the subsistence of this Agreement;

"**Appointed Date**" means that date on which the Employer issued a Letter of Notice to Proceed with work;

"AFC" or "Approved for Construction Drawings" shall have the meaning set forth in Clause 4.1.3 (c);

"Arbitration Act" means the Arbitration and Conciliation Act, 1996 and shall include modifications to or any re-enactment thereof, as in force from time to time;

"Bank" means a bank incorporated in India and having a minimum net worth of Rs. 1,000 crore (Rupees one thousand crore) or any other bank acceptable to the Employer;

"Base Rate" means the floor rate of interest announced by the State Bank of India for all its lending operations;

"Base Date" means the last date of that calendar month, which date precedes the Bid Due Date by at least 28 (twenty eight) days; For the sake of clarity, if the bid due date is 14th August 2025, the base date is 31st June 2025.

"Bid" means the documents in their entirety comprised in the bid submitted by the [selected bidder/Consortium] in response to the Request for Proposals in accordance with the provisions thereof;

"**Bid Security**" means the bid security provided by the Contractor to the Employer in accordance with the Request for Proposal, and which is to remain in force until substituted by the Performance Security;

"Change in Law" means the occurrence of any of the following after the Base Date:

(a) the enactment of any new Indian law;

(b) the repeal, modification or re-enactment of any existing Indian law;

(c) the commencement of any Indian law which has not entered into effect until the Base Date;

(d) a change in the interpretation or application of any Indian law by a judgement of a court of record which has become final, conclusive and binding, as compared to such interpretation or application by a court of record prior to the Base Date; or

"Change of Scope" shall have the meaning set forth in Article 13;

"Change of Scope Notice" shall have the meaning set forth in Clause 13.2.1;

"Change of Scope Order" shall have the meaning set forth in Clause 13.2.4;

"Completion Certificate" shall have the meaning set forth in Clause 12.4;

"Consortium" means the consortium of entities which have formed a joint venture for implementation of this Project;

"Construction" shall have the meaning set forth in Clause 1.2.1 (f);

"Construction Period" means the period commencing from the Appointed Date and ending on the date of the Completion Certificate;

"Contract Price" means the amount specified in Clause 15.1.1;

"Contractor" shall have the meaning attributed thereto in the array of Parties hereinabove as set forth in the Recitals;

"Contractor Default" shall have the meaning set forth in Clause 19.1;

"Cure Period" means the period specified in this Agreement for curing any breach or default of any provision of this Agreement by the Party responsible for such breach or default and shall:

(a) commence from the date on which a notice is delivered by one Party to the other Party asking the latter to cure the breach or default specified in such notice;
(b) not relieve any Party from liability to pay Damages or compensation under the provisions of this Agreement; and
(c) not in any way be extended by any period of Suspension under this Agreement; provided that if the cure of any breach by the Contractor requires any reasonable action by the Contractor that must be approved by the Employer or the Engineer / Engineer's Representative hereunder, the applicable Cure Period shall be extended by the period taken by the Employer or the Engineer / Engineer's Representative to accord their approval;

"Damages" shall have the meaning set forth in paragraph (w) of Clause 1.2.1;

"Defect" means any defect or deficiency in Construction of the Works or any part thereof, which does not conform with the Specifications and Standards, which is specified in Schedule-E;

"Defects Liability Period" shall have the meaning set forth in Clause 14.1;

"**Design Consultant**" means Consultant appointed by the employer to finalise the design of jetty including civil and marine structures and issue Good for Construction (GFC or AFC) drawings for the civil and marine work and modify the same to suit site conditions as and when required.

"Dispute" shall have the meaning set forth in Clause 22.1.1;

"Dispute Resolution Procedure" means the procedure for resolution of Disputes set forth in Article 22;

"Drawings" means all of the drawings, calculations and documents pertaining to the Project as set forth in Schedule-I, and shall include „as built" drawings of the Project;

"Document" or "Documentation" means documentation in printed or written form, or in tapes, discs, drawings, computer programmes, writings, reports, photographs, films, cassettes, or expressed in any other written, electronic, audio or visual form;

"Emergency" means a condition or situation that is likely to endanger the safety or security of the individuals on or about the Project, including Users thereof, or which poses an immediate threat of material damage to any of the Project Assets;

"Employer"" means Board of Mumbai Port Authority, a body corporate under Major Port Authority Act 2021 acting through its Chairman, Deputy Chairman or the Chief Engineer (Civil Engineering Department) or any other officers so nominated by the Board;

"Employer Default" shall have the meaning set forth in Clause 19.1;

"Engineer" means the Project Management Consultant, namely the Department of Ocean Engineering, IIT Madras, appointed by the Employer to act on its behalf for the purposes of the Contract. The Engineer shall be responsible for performing the duties, functions, and powers assigned under the Contract, and shall be supported by a team of experienced professionals and support staff for execution of the Consultancy Services, including coordination with the Employer as and when required.

"Engineer's Representative" means the Resident Engineer / Project Manager of the Project Management Consultant, appointed to reside at the project site and act on behalf of the Engineer. The Engineer's Representative shall carry out such duties and responsibilities as may be delegated by the Engineer under the Contract and shall serve as the primary on-site authority for day-to-day supervision, monitoring, and coordination of the works.

"Employer's Representative" means such person or persons as may be authorised in writing by the Employer to act on its behalf under this Agreement and shall include any person or persons having Employer to exercise any rights or perform and fulfil any obligations of the Employer under this Agreement;

"Encumbrances" means, in relation to the Project, any encumbrances such as mortgage, charge, pledge, lien, hypothecation, security interest, assignment, privilege or priority of any kind having the effect of security or other such obligations, and shall include any designation of loss payees or beneficiaries or any similar arrangement under any insurance policy pertaining to the Project, where applicable herein but excluding utilities referred to in Clause 9.1;

"Item rate mode" means construction of project facilities based on rate specified in the contract;

"Final Payment Certificate" shall have the meaning set forth in Clause 15.11.1;

"**Final Payment Statement**" shall have the meaning set forth in Clause 15.9.1;

"Force Majeure" or "Force Majeure Event" shall have the meaning ascribed to it in Clause 17.1;

"GFC" or "Good for Construction Drawings" shall have the meaning set forth in Clause 4.1.3 (c);

"GOI" or "Government" means the Government of India;

"Good Industry Practice" means the practices, methods, techniques, designs, standards, skills, diligence, efficiency, reliability and prudence which are generally and reasonably expected from a reasonably skilled and experienced contractor engaged in the same type of undertaking as envisaged under this Agreement and which would be expected to result in the performance of its obligations by the Contractor in accordance with this Agreement, Applicable Laws and Applicable Permits in reliable, safe, economical and efficient manner;

"Government Instrumentality" means any department, division or sub-division of the Government or the State Government and includes any commission, board, Employer, agency or municipal and other local Employer or statutory body including panchayat under the control of the Government or the State Government, as the case may be, and having jurisdiction over all or any part of the Project or the performance of all or any of the services or obligations of the Contractor under or pursuant to this Agreement;

"IRC" means the Indian Roads Congress;

"Indemnified Party" means the Party entitled to the benefit of an indemnity pursuant to Article 21;

"Indemnifying Party" means the Party obligated to indemnify the other Party pursuant to Article 21;

"Indirect Political Event" shall have the meaning set forth in Clause 17.3;

"Insurance Cover" means the aggregate of the maximum sums insured under the insurances taken out by the Contractor pursuant to Article 16, and includes all insurances required to be taken out by the Contractor under Clauses 16.1 and 16.9 but not actually taken, and when used in the context of any act or event, it shall mean the aggregate of the maximum sums insured and payable or deemed to be insured and payable in relation to such act or event;

"Intellectual Property" means all patents, trade marks, service marks, logos, get-up, trade names, internet domain names, rights in designs, blue prints, programmes and manuals, drawings, copyright (including rights in computer software), database rights, semi-conductor, topography rights, utility models, rights in know-how and other intellectual property rights, in each case whether registered or unregistered and including applications for registration, and all rights or forms of protection having equivalent or similar effect anywhere in the world;

"**Interim Payment Certificate**" or "**IPC**" means the interim payment certificate issued by the Engineer / Engineer's Representative for payment to the Contractor in respect of Contractor's claims for payment raised in accordance with the provisions of this Agreement;

"**MbPA**" means Mumbai Port Authority;

"Lead Member" shall, in the case of a consortium, mean the member of such consortium who shall have the Employer to bind the contractor and each member of the Consortium; and shall be deemed to be the Contractor for the purposes of this Agreement;

"LA" or "Letter of Acceptance" means the letter of acceptance referred to in Recital (E);

Notice to proceed work (NTP) means the letter indicating the award of the project and indicating the contractor to proceed with work at site as per 10.2.2.

"Operating Manual" shall have the meaning ascribed to it in Clause 10.7;

"Material Adverse Effect" means a material adverse effect of any act or event on the ability of either Party to perform any of its obligations under and in accordance with the provisions of this Agreement and which act or event causes a material financial burden or loss to either Party;

"Materials" are all the supplies used by the Contractor for incorporation in the Works of the Project;

"**Monthly Payment Statement**" shall have the meaning set forth in Clause 15.3;

"**MOS**" means the Ministry of Shipping;

"**Non-Political Event**" shall have the meaning set forth in Clause 17.2;

"Parties" means the parties to this Agreement collectively and "Party" shall mean any of the parties to this Agreement individually;

"Performance Security" shall have the meaning set forth in Clause 7.1;

"Plant" means the apparatus and machinery intended to form or forming part of the Works;

"Political Event" shall have the meaning set forth in Clause 17.4;

"Programme" shall have the meaning set forth in Clause 10.1.3;

"Project" means the construction of Marina in Mumbai Harbour in accordance with the provisions of this Agreement, and includes all works, services and equipment relating to or in respect of the Scope of the Project;

"Project Assets" means all physical and other assets relating to (a) tangible assets such as civil works and foundations, and administrative offices; and (b) Project Facilities situated on the Site;

"Project Completion Date" means the date on which the Provisional Certificate is issued and in the event no Provisional Certificate is issued, the date on which the Completion Certificate is issued;

"Project Completion Schedule" means the progressive Project Milestones set forth in Schedule-J for completion of the Project on or before the Scheduled Completion Date;

"Project Facilities" means all the amenities and facilities situated on the Site, as described in Schedule-C;

"**Project Site**" means the Site comprising the area identified and all Project Assets, and its subsequent development and augmentation in accordance with this Agreement;

"Project Milestone" means the project milestone set forth in Schedule-J;

"Provisional Certificate" shall have the meaning set forth in Clause 12.2;

"Punch List" shall have the meaning set forth in Clause 12.2.1;

"Quality Assurance Plan" or **"QAP"** shall have the meaning set forth in Clause 11.2**;**

"Re.", "Rs." or "Rupees" or "Indian Rupees" means the lawful currency of the Republic of India;

"**Request for Proposals**" *or* "**RFP**" shall have the meaning set forth in Recital „D";

"Request for Qualification" or "RFQ" shall have the meaning set forth in Recital „C";

"Retention Money" shall have the meaning set forth in Clause 7.5.1;

"Right of Way" means the constructive possession of the Site free from encroachments and encumbrances, together with all way leaves, easements, unrestricted access and other rights of way, howsoever described, necessary for construction and maintenance of the Project facilities in accordance with this Agreement;

"**Safety Officer**" shall have the meaning set forth in Clause 10.1.5;

"Scheduled Completion Date" shall be the date set forth in Clause 10.3.1;

"Scope of the Project" shall have the meaning set forth in Clause 2.1;

"Section" means a part of the Project;

"Site" shall have the meaning set forth in Clause 8.1;

"Specifications and Standards" means the specifications and standards relating to the quality, quantity, capacity and other requirements for the Project, as set forth in Schedule-D, and any modifications thereof, or additions thereto, as included in the design and engineering for the Project submitted by the Contractor to, and expressly approved by, the Employer;

"**Structures**" means an jetties, berth, mooring dolphins, breasting dolphins, loading or unloading platform, bridges, approach trestle, buildings, as the case may be;

"Sub-contractor" means any person or persons to whom a part of the Works or the Maintenance has been subcontracted by the Contractor and the permitted legal successors in title to such person, but not an assignee to such person;

"Suspension" shall have the meaning set forth in Article 18;

"Taxes" means any Indian taxes including excise duties, customs duties, value added tax, sales tax, local taxes, cess and any impost or surcharge of like nature (whether Central, State or local) on the goods, Materials, equipment and services incorporated in and forming part of the Project charged, levied or imposed by any Government Instrumentality, but excluding any interest, penalties and other sums in relation thereto imposed on any account whatsoever. For the avoidance of doubt, Taxes shall not include taxes on corporate income;

"Termination" means the expiry or termination of this Agreement;

"Termination Notice" means the communication issued in accordance with this Agreement by one Party to the other Party terminating this Agreement;

"Termination Payment" means the amount payable by either Party to the other upon Termination in accordance with Article 19;

"Terms of Reference" or "TOR" shall have the meaning set forth in Schedule M;

"Tests" means the tests set forth in Schedule-K to determine the completion of Works in accordance with the provisions of this Agreement;

"Time Extension" shall have the meaning set forth in Clause 10.5.1;

"User" means a person who travels or intends to travel on the Project facilities or any part thereof in/on any vehicle;

"**Valuation of Unpaid works**" shall have the meaning set forth in Clause 19.5.1;

"Works" means all works including survey and investigation, design, engineering, procurement, construction, Plant, Materials, maintenance, temporary works and other things necessary to complete the Project in accordance with this Agreement; and

"WPI" means the wholesale price index for various commodities as published by the Ministry of Commerce and Industry, GOI and shall include any index which substitutes the WPI, and any reference to WPI shall, unless the context otherwise requires, be construed as a reference to the WPI published for the period ending with the preceding month.

IN WITNESS WHEREOF THE PARTIES HAVE EXECUTED AND DELIVERED THIS AGREEMENT AS OF THE DAY, MONTH AND YEAR FIRST ABOVE WRITTEN.

SIGNED, SEALED AND DELIVERED For and on behalf of MUMBAI PORT AUTHORITY WORKS by:	SIGNED, SEALED AND DELIVERED For and on behalf of THE CONTRACTOR by:
(Signature) (Name) (Designation) In the presence of: 1. 2.	(Signature) (Name) (Designation)

SCHEDULES

SCHEDULE – A

(See Clauses 2.1 and 8.1)

SITE OF THE PROJECT

1. The Site

1.1 Site of the Project shall include the land, buildings, structures and road works as described in Annex-I of this Schedule-A.

1.2 The dates of handing over the site to the Contractor are specified in Annex-II of this Schedule-A.

1.3 An inventory of the Site including the land, buildings, structures, road works, trees and any other immovable property on, or attached to, the Site shall be prepared jointly by the Employer Representative and the Contractor, and such inventory shall form part of the memorandum referred to in Clause 8.2.1 of this Agreement.

1.4 The layout plans of the Project site are specified in Annex-III.

1.5 The status of the environment clearances obtained or awaited is given in Annex IV.

1.6 Contractor's working area of 15,000 sqm at Prince's Dock.

Annex - I
(Schedule-A)
Site

The proposed Marina is located adjacent to the cross island at Mazgaon, Mumbai.

1. Site

The Site of the Project comprises fully in water located north of the cross island, Mazgoan.

2. Land

The Site of the Project comprises of the area in water is 1,40,000 Sq.m (Approx.).

2.1 Site Condition

2.1.1 Chart Datum

The datum to which all the levels shall be referred to is the Chart Datum. This datum is 2.51 meters below the Mean Sea Level (MSL) in MBPA Channel whereas it is 2.50 meters below the MSL in Mumbai Harbor Channel.

2.1.2 Tidal Information

The tides in the region are semi-diurnal in character, exhibiting two high and two low waters in a period of 24 hours and 25 minutes. Duration of each tidal cycle is between 5 to 7 hours (theoretically 6 hours and 12 minutes).

The following are the tidal levels recorded at Apollo Bunder (Lat. 18°55'N; Long 72°50'E) at Mora (Lat 18 ° 55'N; Long 72 ° 56'E) and at Trombay (Lat.18 °59' N; Long 72 ° 56'E).

Highest High Water Recorded	+5.38 m
Highest High-Water Springs (HHWS)	+4.98 m
Mean High Water Springs (MHWS)	+4.42 m
Highest High-Water Neaps (HHWN)	+3.88 m
Lowest High-Water Springs (LHWS)	+3.86 m
Mean High Water Neaps (MHWN)	+3.30 m
Lowest High-Water Neaps (LHWN)	+2.74 m
Mean Sea Level (MSL)	+2.51 m
Lowest High Water	+2.48 m
Highest Low Water Neaps (HLWN)	+2.40 m
Mean Low Water Neaps (MLWN)	+1.86 m

Highest Low Water Springs (HLWS)	+1.30 m
Lowest Low Water Neaps (LLWN)	+1.30 m
Mean Low Water Springs (MLWS)	+0.76 m
Lowest Low Water Springs (LLWS)	+0.12 m
Chart Datum	±0.00 m
Lowest Low Water Recorded	- 0.44 m

There is a time lag of a few minutes between the timings of high and low tides as predicted in the Tide for the Port of Mumbai/ MBPA and as occurring at the site of works.

Statistical Studies indicate that
All high tides exceed +2.70m
About 5% of all high tides would be less than +3.20m
About 5% of the lower high tides would be less than +2.85,

Based on these tidal levels, the highest, mean and lowest tidal ranges for both spring and neap tides are as follows:

Spring Tides are	
Highest range	4.86 m
Mean range	3.66 m
Lowest range	2.56 m
Neap Tides are	
Highest range	2.58 m
Mean range	1.45 m
Lowest range	0.34 m

2.1.3 Wind

General direction of the prevailing wind is from North to West quarter, with seasonal variation as shown below:

Season (Month)	**Directions**	**Speeds**
SW Monsoon (June-Sept)	Mainly from SW to NW	(Max. 8 to 10 Beaufort, Substantial 4-6 Beaufort)
Post Monsoon (October-November)	Mainly from NW to NE	(Max. 6 to 8 Beaufort, Substantial 2-6 Beaufort)
Winter (December-February)	Mainly from ENE to NW	(Max. 6 to 8 Beaufort, Substantial 2-6 Beaufort)
Summer (March - May)	Mainly from NW to N	(Max. 8 to 10 Beaufort, Substantial 4-6 Beaufort)

2.1.4 Maximum Wind Speeds

During a day there are short periods when the wind speed exceeds the prevailing wind speed by a substantial amount resulting in gusts of wind from directions different from that of the prevailing wind. The maximum wind occurs from the NW during the month of September and has a speed of 54 km/hr.

The yearly wind rose diagrams for the offshore wind are shown in figure 2.1 showing the cumulative percentage of occurrence of various wind speeds. It is seen that in this region the wind blows from the sector SW to North for 92% of the time. Also, the wind speed is less than 20 m/s (72 km/hr) for 95% of the time.

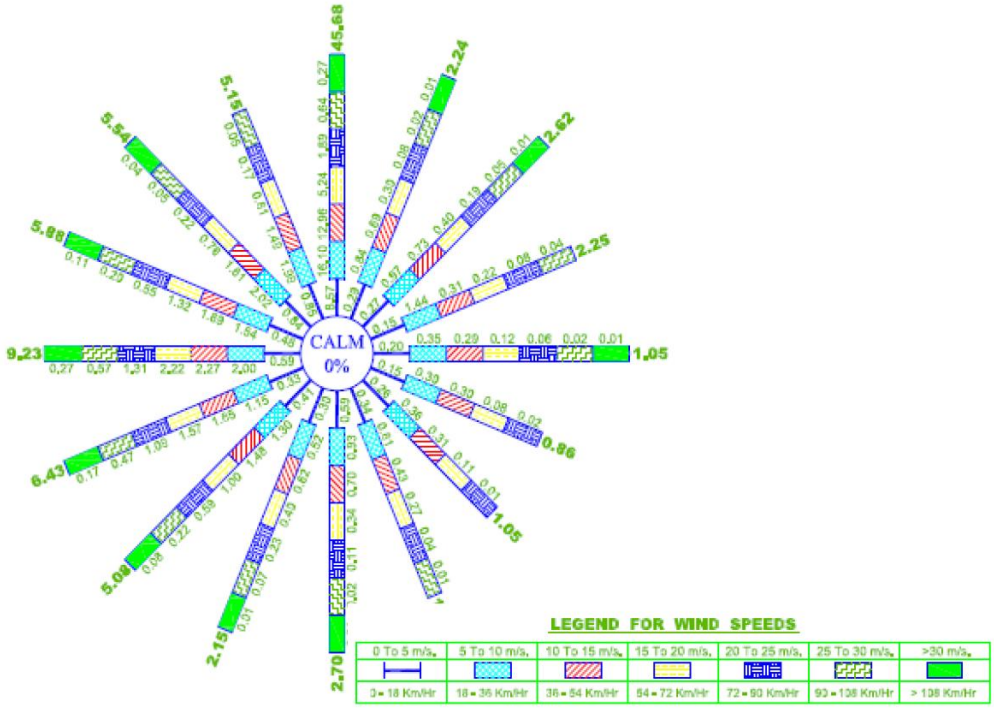

Figure 2.1: Wind Rose Data for the Period 1986 to 2001

2.1.5 Cyclones

These may occur in the period of May/June or October/November. The storms are mostly confined to the months of June and September, and the months of July and August are almost free of storms. The last severe cyclonic storm having winds of above 48 knots was experienced in 1982. Occasionally, sudden high winds also occur during the fine weather periods from NE.

2.1.6 Thunderstorms and Squalls

With the onset of summer, thunder activity becomes pronounced due to ground heating. A good number of thunderstorms occur in the months of May and October, i.e. before and after the southwest monsoon. Thunderstorms cover fairly large areas (10-100 Sq. Km) and last a few minutes to a few hours. On an average, thunderstorms occur on 17 days in a year.

Squalls are gusts of wind, in association with thunderstorms and dust storms and usually reach speeds of 30-40 knots (55-75 km/h). During severe storms, squalls reach speeds of up to 60 knots (110 km/h). The project area may experience squalls on 15 days in a year on the average. Being a coastal area, fog and hailstorms rarely occur.

2.1.7 Currents

The currents in the harbour waters are essentially caused by the tides, and are not influenced to any appreciable extent by monsoons, etc. The tidal flow is unsteady, and the magnitude and direction of the currents varies with respect to location, time and depth. Generally, the ebb currents are stronger than flood currents.

Normally maximum currents inside the harbour are about 2 to 3 knots, though 4 knots may occur in the ebb during the monsoon period spring tide. The currents generally run parallel to the navigational channel.

2.1.8 Waves

The National Institute of Oceanography (NIO), Goa, have compiled and published wave data for the entire coastline of India in the form of a “wave atlas”. The monthly wave rose diagrams published in the “wave atlas” for the area from latitude 15°N to 25°N and Longitude 70°N to 75°E show that during the monsoon period the predominant wave directions are from Southwest to West. During this period, waves of 4-5 m height normally occur; however, waves up to 8 m in height and period of 14 seconds have also been reported. October and November are the transition months during which the predominant wave direction changes to North – Northeast. During December and January, the waves mainly occur from North to Northeast and from February to May waves predominantly come from the Northwest quadrant. The yearly wave rose diagrams for the inshore and offshore waves are shown in Figure 2.2.

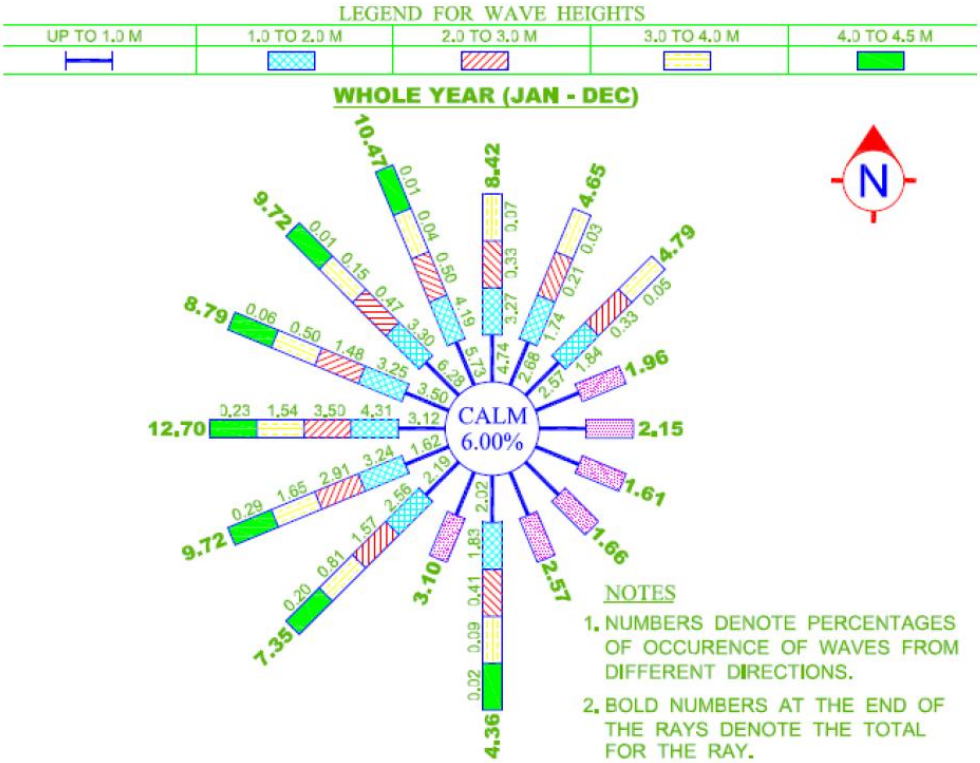

Figure 2.2: Wave Rose Data for the period 1968 to 2000

2.1.9 Relative Humidity and Temperature

The relative humidity is moderate to high (62% to 84%) throughout the year with the mornings being more humid than the afternoons with the highest humidity in the monsoon period. During the winter months (Nov-Jan) relative humidity ranges from 63% to 73%. The mean daily temperature ranges from 24°C to 33°C except during the winter period when the maximum temperature may fall to about 19°C. The hotter months are March, April, May and June.

2.1.10 Visibility

The visibility in the project area is generally good throughout the year, except for a few days during the winter season and during periods of heavy rain. On an average, the visibility is less than 4 km for about 18 days in a year. Most often in the months of November to March, shortly after sunrise and occasionally in the evenings, smog may hang over the land obscuring the view for short periods.

2.1.11 Rainfall

The region experiences a tropical monsoon climate with plentiful and regular seasonal rains. The southwest monsoon period extends from June to September. November to March is the period for the north-east monsoon. Most of the annual rainfall occurs during southwest monsoon, the average monthly rainfall being about 450 mm. Rainfall during northeast monsoon is minimal. The average annual rainfall over past 20 years is 1930mm.

2.1.12 Geological Conditions

Geologically, the project area falls under the western part of the "Deccan Trap" formation of India. The area is separated from Bombay Island by the arm of Arabian Sea with Elephanta and Butcher islands in between. Stratigraphically, the rocks meeting in these areas belong to the late Cretaceo-oligocene periods of geological times. This region is predominantly constituted by a thick pile of basalt flows. Rocks exposed at the lower reaches of the Sheva region are predominantly vesicular basalts having a fine-grained texture. These vesicular basalts having closely spaced joints are overlain by large thickness of vesicle-free basalts of younger flows.

The Southern coastal fringe of the region shows outcrops of vesicular basalts of lower reaches overlain by non-vesicular basalts while those on the lower fringe on the western side are characterized by amygdaloidal tuffs overlain by basalts.

2.1.13 Bathymetry

Reports of the earlier bathymetric surveys carried out in the proposed site including isopaches are provided as part of the tender.

2.1.14 Soil Investigation and Seismic Survey

Geotechnical Investigation report carried out for the project is available for reference. The substrata comprise of soft marine clay underlain by a mixture of stiff marine clay and sand which, in turn, is underlain by layers of completely weathered, highly weathered, moderately weathered, lightly weathered, and sound amygdaloidal basalt. The contractor shall study the report and assess the soil conditions carefully prior to submitting the bid.

Annex - II
(Schedule-A)
Dates for providing Access to the site

The dates on which the Employer shall provide access to the site to the Contractor on different areas of the Site as stated below:

Sl. No	Area	Date of providing Access
1	2	3
Work Site	1,40,000 Sq.m (Approx.)	Within 30 days from the date of this agreement.
Precast Yard	15,000 Sq.m (Approx.)	Within 30 days from the date of this agreement.

The location of work site is shown in drawing IITM-MbPA-YM-DWG-004 and the precast yard is shown in drawing SK001/2025.

Annex - III
(Schedule-A)
Layout Plans

The layout plan of the Project site is shown in drawing IITM-MbPA-YM-DWG-004.

Annex - IV
(Schedule-A)
Environment Clearances

The environment clearance for the project is awaited. The work will be awarded only after receipt of Environmental Clearance for the project.

SCHEDULE - B
(See Clause 2.1)

CONSTRUCTION OF MARINA IN MUMBAI HARBOUR

1. Construction of Marina

The proposed construction of the Marina facility at Mazgaon, adjacent to the Cross Island, is a specialized marine infrastructure project aimed at developing a dedicated terminal for berthing and mooring of private and commercial yachts. The development is to be undertaken in a coastal marine environment where the seabed levels range from approximately -1.0 metre to -3.0 metres, necessitating careful geotechnical and structural planning. The facility will comprise several key components including a piled breakwater, approach trestle, onshore ramp, service platform, gangway platforms, berthing pontoons, walkway pontoons, and associated guide pin piles. These structural elements are to be supported on reinforced concrete bored cast-in-situ piles, designed to withstand both static and dynamic marine loading conditions. Given the quantum of piling involved and the challenging marine environment, the construction strategy requires careful sequencing and resource planning. The adoption of multiple work fronts with the use of marine equipment such as piling gantries and jack-up barges is essential to meet the construction timelines and ensure continuity of works without disruption due to tidal variations or environmental constraints. Accordingly, the contractor shall plan for the deployment of an adequate number of barges, rigs, and support vessels to carry out simultaneous piling operations at multiple locations within the project footprint.

In addition to the structural marine elements, the project involves the pre-casting, transportation, and installation of modular concrete pontoons that will serve as floating platforms for yacht berthing and pedestrian access. These pontoons must be cast in a controlled precast yard environment with stringent quality assurance protocols. The transportation of these precast elements to the site and their subsequent installation in tidal waters will require the use of lifting barges, tugs, and precision mooring systems to ensure accurate alignment and stability. The coordination of these works across both land-based and marine zones will be critical for the success of the project. Furthermore, due consideration must be given to environmental protection measures, occupational safety practices, and adherence to maritime regulations throughout the construction period. Overall, the successful execution of this Marina development will demand a high degree of technical expertise, logistical coordination, and marine construction experience to ensure timely and quality delivery of the infrastructure.

2. Specifications and Standards

The Project facilities shall be designed and constructed in conformity with the Specifications and Standards specified in Annex-I of Schedule-D.

Annex - I
(Schedule-B)
Description of Project

1. Scope of Works

1.1 Introduction

A new Marina is proposed to be developed by the concerned authorities as a greenfield facility along the eastern waterfront of Mumbai, adjacent to Cross Island. At present, there is no existing infrastructure dedicated to the berthing or servicing of yachts in this region. The proposed development aims to establish a modern, purpose-built marina to accommodate the increasing demand for yacht-based recreational and tourism activities. The selected location offers strategic proximity to the city, deep-water access, and potential integration with future waterfront development initiatives. The Marina will include of the following.

- Approach trestle of dimension 524m x 11.25m
- Piled breakwater of 1.47km length with a width of 4.8m
- Service platform of dimensions 23.5m x 25.0m
- Gangway platform 4 Nos.
- Walkway pontoons 3m wide.
- Berthing pontoons 3m wide.
- Landing pontoons.
- Gangway 1.5m wide and 22m long.
- Guide pin piles 660mm and 860mm dia. And 25mm thick.

The element of work is given as information for the understanding and the actual work to be executed is shown in drawings, specifications, bill of quantities and as and when the additional drawings issued to the contractor.

1.2 Scope of civil / marine works

The scope of the work comprises of the procurement and construction of civil / marine works relating to Marina and allied facilities. The scope of work is not limited to the list below but shall include everything, which will be detailed in the tender document.

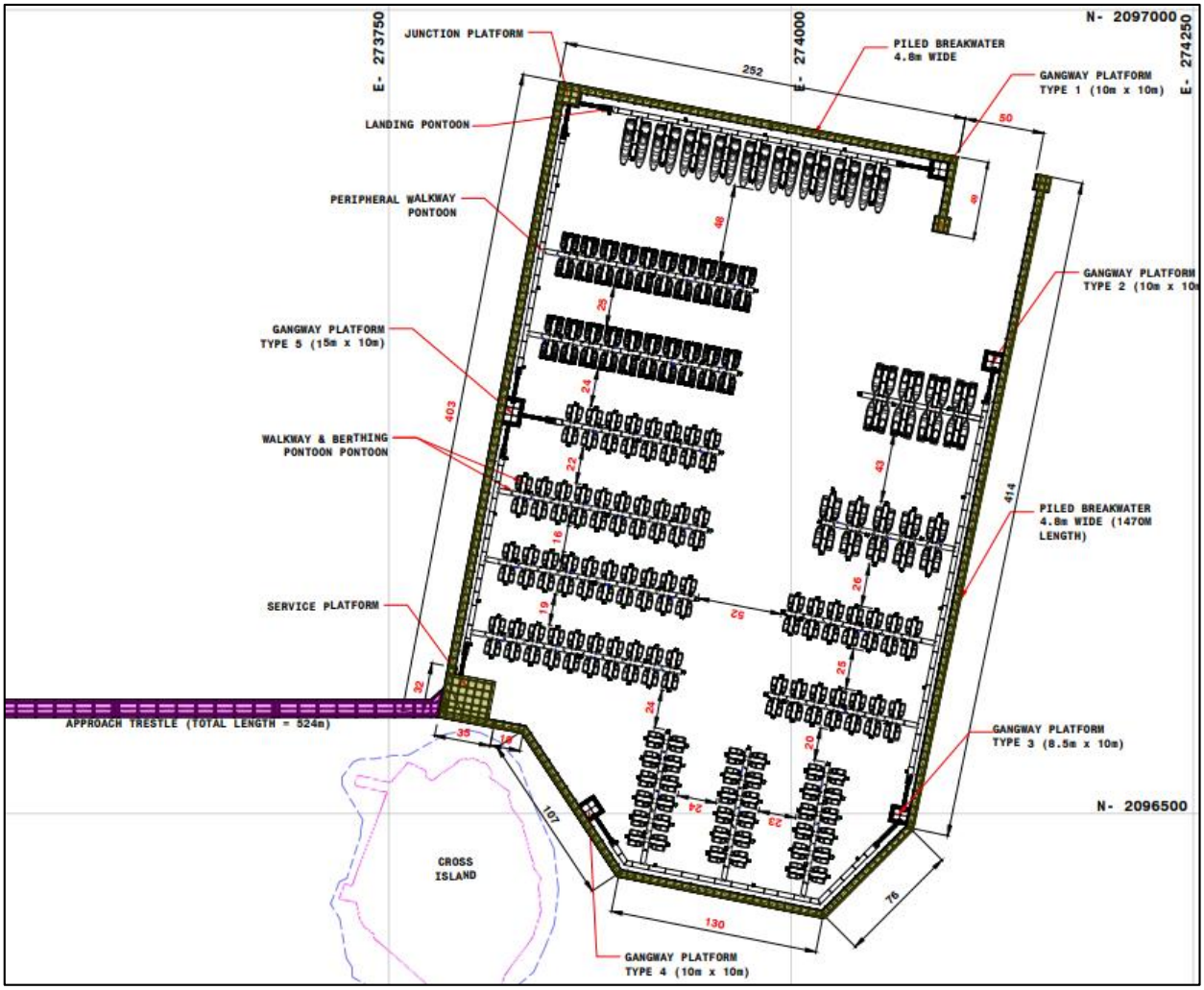

Figure 1.1 Overall layout of Marina

The details regarding the location, alignment, sectional details etc. are all shown in the general arrangement drawing prepared to define the scope of works and the same is enclosed under the Schedule of Drawings. The main items of works covered in this tender are as follows:

- Site clearance and preparation of site for construction work.
- Construction of Bored cast-in-situ RCC Piles as required by the design for the following structures.
    - ✓ Piled breakwater
    - ✓ Approach Trestle
    - ✓ Service and gangway platforms
- Construction of bored cast in-situ piles with liner driven refusal depth and boring to the required socket depth into weather/intact rock with and construction of pile with reinforcement and tremie concrete for jetty, approach trestle and substation.
- Carrying out initial static vertical pile load test on one number of piles at the location shown in drawing or any other location selected by the Engineer / Engineer's Representative. The location of piles shall be selected by the Engineer / Engineer's Representative in accordance with the design requirement and location as shown in the drawings.

- Carrying out dynamic pile load tests on piles selected by the Engineer / Engineer's Representative. The piles shall be selected by the Engineer / Engineer's Representative in accordance with number of piles in each structure.
- Construction of deck structure made of precast or in-situ or combined beams / slab / wall for piled breakwater, and approach trestle including service and expansions joints as shown in drawings.
- Providing and laying screed concrete/weathering course of 100mm thick design mix of plain M30 grade concrete with polypropylene fibres of 50mm length on top of deck slab with appropriate drain slope and drainpipes.
- Casting, transportation and erection in position of concrete pontoons for berthing and mooring of the yachts at the designated location as specified in the drawings including installation of marine fixtures such as mooring cleats and fenders.
- Construction of guide pin piles including erection of larger diameter temporary liners and boring of the larger diameter and installation of the guide pin piles in position and grouting the intermediate potion with underwater grout till the sea bed level.

SCHEDULE - C
(See Clause 2.1)
Project Facilities

The project facility includes the following but not limited to the list given below.

- Approach trestle of dimension 524m x 11.25m
- Piled breakwater of 1.47km length with a width of 4.8m
- Service platform of dimensions 23.5m x 25.0m
- Gangway platform 4 Nos.
- Walkway pontoons 3m wide.
- Berthing pontoons 3m wide.
- Landing pontoons.
- Gangway 1.5m wide and 22m long.
- Guide pin piles 660mm and 860mm dia. And 25mm thick.

The components described above are indicative only. For actual requirements, corresponding scope of work, specifications and details on drawings shall be referred.

SCHEDULE - D
(See Clause 2.1)
SPECIFICATIONS AND STANDARDS

All Materials, works and construction, operations shall conform to the following.

- Technical Specifications, Tender Drawings and Geotechnical Report forms part of RFP.
    a) Vol. I - Technical Specifications
    b) Vol. II - Tender Drawings
    c) Vol. III - Geotechnical Report
- Latest edition of relevant BIS codes and standards
- Latest edition of relevant international codes and standards
- Where the specification for a work is not given, Good Industry Practice shall be adopted to the satisfaction of the Engineer / Engineer's Representative.

The order of precedence shall be as listed above.

The Contractor shall comply with the Codes and Standards set forth in Annex-I of this Schedule-D for construction of Marina.

Annex - I

(Schedule-D)

Codes and Standards

(CIVIL / MARINE WORKS)

Code	Description
Guidelines for marina design	
PIANC Guidelines	ReCom WG 149-part 1&2-Guidelines for marina design
AS 3962	Australian Guidelines for design of marinas
AS 2419	Guidelines for fire protection design
AS 2890	Australian standards for Car parking
IS 4651	Code of Practice for Planning and Design of Port and Harbours.
Part 2	Earth Pressure
Part 3	Loading
BS 6349	Code of practice for maritime structures
Part 2	Design of Quay walls, jetties and dolphins
Part 4	Fendering and Mooring System
Loading	
IS 1893	Criteria for Earthquake Resistant Design of Structures.
Part 1:2002	General Provisions and Buildings
IS 875:1987	Code of Practice for Design Loads (Other than Earthquake) for Buildings and Structures – Part 3 : Wind Loads,
IS 800	Code Practice for General Construction of steel
RC Design	
IS 456 - 2000	Plain and Reinforced Concrete – Code of Practice
IS 1786	Specification for high strength deformed steel bars and wires for concrete reinforcement
IS 13920	Ductile detailing of reinforced concrete subjected to seismic forces
AS 3600	Australian standards for concrete design
RC Bored Pile Design	
IS 2911-1979 Part II	Design and construction of Pile Foundations – Concrete Piles

SCHEDULE - E
(See Clause 14.2)

MAINTENANCE REQUIREMENTS

This project does not include any maintenance requirements except those specified during the defect liability period as specified in clause 14. The schedule for repair/rectification of defects and deficiencies are specified in Annex-I.

Annex – I
(See Clause 14.2)
(Schedule-E)
Repair/rectification of defects and deficiencies

The Contractor shall repair and rectify the Defects and deficiencies specified in this Annex-I of Schedule-E within the time limit set forth in the table below.

Sl. No	**Nature of Defect or deficiency**	**Time limit for repair/rectification**
(1)	Surface cracks on plaster	30 (thirty) days
(2)	Leakage of water from roof / floor	24 (twenty four) hours
(3)	Peeling of floor tiles	3 (three) days
(4)	Damage or deterioration in kerb, parapets, handrails and crash barriers	3 (three) days
(5)	Structural cracks in beam, column, wall and slab	7 (seven) days
(6)	Damage to wearing coat	7 (seven) days
(7)	Gap in expansion joint	7 (seven) days
(8)	Growth of vegetation affecting the structure or obstructing the waterway	7 (seven) days
(9)	Water ingress or leakage in to building	As early as possible/within 24 (twenty four) hours
(10)	Damage to doors, windows, ventilators	3 (three) days
(11)	Damage to electrical lamp post, junction boxes, cope boxes, power sockets etc.	24 (twenty four) hours
(12)	Damage to piles, pile muff and its components	7 (seven) days and shall be reduced to 3 days if it is critical.

SCHEDULE – F
(See Clause 3.1.7(a))
APPLICABLE PERMITS

1. Applicable Permits

1.1 The Contractor shall obtain all permits, as required under the Applicable Laws.

1.2 Applicable Permits, as required, relating to environmental protection and conservation shall have been procured by the Employer in accordance with the provisions of this Agreement.

1.3 The contractor shall refrain entering area of the site not allocated to him unless he obtains the prior written approval of the Engineer / Engineer's Representative and appropriate authorities. Should the contractor wish to make use of any adjoining or property of offices or halls, he shall first obtain the written clearance / consent of the Engineer / Engineer's Representative and then shall apply to the appropriate Authority for permission to use the area. If such permission is granted, the contractor may make use of the area thus permitted to use, but on completion shall clear away and make good any damage at his own expense and pay all costs and charges in connection therewith.

1.4 The contractor shall be solely responsible to obtain required permits / authorization from other agencies/ Departments for the due performance of the contract and delay if any arising thereof shall not be quoted as reason for extension of time and consequent additional cost.

1.5 The Contractor has to comply with all operational procedures set forth by MbPA Authorities as and when required at his own cost.

1.6 The contractor shall possess and obtain necessary license from the Labour Commissioner, Central/State Govt. for carrying out works where more than 20 persons are proposed to be engaged by the contractor.

1.7 The contractor shall obtain a valid license under the Central Labour (R&A) Act, 1970 and the Contract Labour (Regulation and Abolition) Central Rules, 1971 (as applicable) before the commencement of the work and continue to have a valid license until the completion of the work.

1.8 The contractor shall make his own arrangements for obtaining all necessary licenses, permits etc., for his crafts and also for the procurement of any spares that he may require during the progress of the works. The contractor shall have adequate supply of necessary spares from the very beginning to ensure that no serious delay or holdup occurs in the execution of works.

1.9 The Contractor shall submit prior application for entry passes to the concerned Authority for his labour and the staffs engaged in the works. The fee for passes will be borne by the contractor. Contractor shall retain the original passes obtained by them in respect of their labour and staff engaged in the Works and produces the same to the Engineer's Representative as and when called for. It should not be either destroyed or allowed to be taken by the labour/staff after its use.

1.10 The contractor has to comply with Employees Provident Fund and miscellaneous provision act 1952 (19 of 1952) of latest.

1.11 The contractor will be required to submit evidence of payment of wages to the labour/ workmen in to their bank account, the statement of remittance towards wages, EPF & ESIC for all labours engaged for the subject work along with their bills. The wages and the remittances for ESIC and EPF etc. shall be in accordance with the prevailing labour laws, rules and regulations governing the Minimum Wages Act. The contractor's bills will not be processed / passed/ in case of non-compliance of these provisions in the contract.

SCHEDULE – G
(See Clauses 7.1.1 and 7.5.3)

FORM OF BANK GUARANTEE

Annex-I
(See Clause 7.1.1)
[Performance Security/Additional Performance Security]

The Chief Engineer
Mumbai Port Authority
3rd floor, Port Bhavan
Shoorji Vallabhdas Marg,
Ballard Estate, Mumbai -400 001Tel: 022-66564031
Fax: 022 - 2261 3469

WHEREAS:

(A) _____ [name and address of contractor] (hereinafter called the "**Contractor**") and The Board of Mumbai Port Authority, having its office at Port Bhavan, Shoorji Vallabhdas Marg, Ballard Estate, Mumbai-400 001, (hereinafter called the **"Employer"**) have entered into an agreement (hereinafter called the "**Agreement**") for the Construction of Marina in Mumbai Harbour (the "**Item Rate Mode**") basis, subject to and in accordance with the provisions of the Agreement

(B) The Agreement requires the Contractor to furnish a Performance Security for due and faithful performance of its obligations, under and in accordance with the Agreement, during the Construction Period/ Defects Liability Period (as defined in the Agreement) in a sum of Rs..... cr. (Rupees ..... crore) (the "**Guarantee Amount**") in favor of **The Board of Mumbai Port Authority,** MbPA, on behalf of Employer.

(C) We, ... through our branch at ..... (the "**Bank**") have agreed to furnish this bank guarantee (*hereinafter called the* **"Guarantee**") by way of Performance Security.

NOW, THEREFORE, the Bank hereby, unconditionally and irrevocably, guarantees and affirms as follows:

1. The Bank hereby unconditionally and irrevocably guarantees the due and faithful performance of the Contractor's obligations during the {Construction Period/ Defects Liability Period} under and in accordance with the Agreement, and agrees and undertakes to pay to the Employer, upon its mere first written demand, and without any demur, reservation, recourse, contest or protest, and without any reference to the Contractor, such sum or sums up to an aggregate sum of the Guarantee Amount as the Employer shall claim, without the Employer being required to prove or to show grounds or reasons for its demand and/or for the sum specified therein.

2. A letter from the Employer, under the hand of an authorized Officer that the Contractor has committed default in the due and faithful performance of all or any of its obligations under and in accordance with the Agreement shall be conclusive, final and binding on the Bank. The Bank further agrees that the Employer shall be the sole judge as to whether the Contractor is in default in due and faithful performance of its obligations during and under the Agreement and its decision that the Contractor is in default shall be final and binding on the Bank, notwithstanding any differences between the Employer and the Contractor, or any dispute between them pending before any court, tribunal, arbitrators or any other Employer or body, or by the discharge of the Contractor for any reason whatsoever.

3. In order to give effect to this Guarantee, the Employer shall be entitled to act as if the Bank were the principal debtor and any change in the constitution of the Contractor and/or the Bank, whether by their absorption with any other body or corporation or otherwise, shall not in any way or manner affect the liability or obligation of the Bank under this Guarantee.

4. It shall not be necessary, and the Bank hereby waives any necessity, for the Employer to proceed against the Contractor before presenting to the Bank its demand under this Guarantee.

5. The Employer shall have the liberty, without affecting in any manner the liability of the Bank under this Guarantee, to vary at any time, the terms and conditions of the Agreement or to extend the time or period for the compliance with, fulfilment and/ or performance of all or any of the obligations of the Contractor contained in the Agreement or to postpone for any time, and from time to time, any of the rights and powers exercisable by the Employer against the Contractor, and either to enforce or forbear from enforcing any of the terms and conditions contained in the Agreement and/or the securities available to the Employer, and the Bank shall not be released from its liability and obligation under these presents by any exercise by the Employer of the liberty with reference to the matters aforesaid or by reason of time being given to the Contractor or any other forbearance, indulgence, act or omission on the part of the Employer or of any other matter or thing whatsoever which under any law relating to sureties and guarantors would but for this provision have the effect of releasing the Bank from its liability and obligation under this Guarantee and the Bank hereby waives all of its rights under any such law.

6. This Guarantee is in addition to and not in substitution of any other guarantee or security now or which may hereafter be held by the Employer in respect of or relating to the Agreement or for the fulfilment, compliance and/or performance of all or any of the obligations of the Contractor under the Agreement.

7. Notwithstanding anything contained hereinbefore, the liability of the Bank under this Guarantee is restricted to the Guarantee Amount and this Guarantee will remain in force for the period specified in paragraph 8 below and unless a demand or claim in writing is made by the Employer on the Bank under this Guarantee all rights of the Employer under this Guarantee shall be forfeited and the Bank shall be relieved from its liabilities hereunder.

8. The Guarantee shall cease to be in force and effect on ****[$]. Unless a demand or claim under this Guarantee is made in writing before expiry of the Guarantee, the Bank shall be discharged from its liabilities hereunder.

[$] Insert date being 3.5 (three and half) years from the date of issuance of this Guarantee (in accordance with Clause 7.2 of the Agreement).

9. The Bank undertakes not to revoke this Guarantee during its currency, except with the previous express consent of the Employer in writing and declares and warrants that it has the power to issue this Guarantee and the undersigned has full powers to do so on behalf of the Bank.

10. Any notice by way of request, demand or otherwise hereunder may be sent by post addressed to the Bank at its above referred branch, which shall be deemed to have been duly authorised to receive such notice and to effect payment thereof forthwith, and if sent by post it shall be deemed to have been given at the time when it ought to have been delivered in due course of post and in proving such notice, when given by post, it shall be sufficient to prove that the envelope containing the notice was posted and a certificate signed by an officer of the Employer that the envelope was so posted shall be conclusive.

11. This Guarantee shall come into force with immediate effect and shall remain in force and effect for up to the date specified in paragraph 8 above or until it is released earlier by the Employer pursuant to the provisions of the Agreement.

12. The Bank Guarantee in enforceable & encashable at Mumbai.

Signed and sealed this ……. day of ……., 20…… at …….

SIGNED, SEALED AND DELIVERED

For and on behalf of the Bank by:
(Signature)
(Name)
(Designation)
(Code Number)
(Address)
NOTES:

i. The bank guarantee should contain the name, designation and code number of the officer(s) signing the guarantee.
ii. The address, telephone number and other details of the head office of the Bank as well as of issuing branch should be mentioned on the covering letter of issuing branch.

Annex – II
(Schedule - G)
(See Clause 7.5.3)
Form for Guarantee for Withdrawal of Retention Money

The Chief Engineer
Mumbai Port Authority
3rd floor, Port Bhavan
Shoorji Vallabhdas Marg,
Ballard Estate, Mumbai -400 001Tel: 022-66564031
Fax: 022 - 2261 3469

WHEREAS:

(A) [name and address of contractor] (hereinafter called the "**Contractor**") has executed an agreement (hereinafter called the "Agreement") with the The Board of Mumbai Port Authority, having its office at Port Bhavan, Shoorji Vallabhdas Marg, Ballard Estate, Mumbai-400 001, (hereinafter called the "**Employer**") for the Construction of Marina in Mumbai Harbour subject to and in accordance with the provisions of the Agreement.

(B) In accordance with Clause 7.5.3 of the Agreement, the Contractor may withdraw the retention money (hereinafter called the "**Retention Money**") after furnishing to the Employer a bank guarantee for an amount equal to the proposed withdrawal.

(C) We, ... through our branch at ..... (the "**Bank**") have agreed to furnish this bank guarantee (hereinafter called the "**Guarantee**") for the amount of Rs. --------- cr. (Rs.----------crore) (the "**Guarantee Amount**").

NOW, THEREFORE, the Bank hereby unconditionally and irrevocably guarantees and affirms as follows:

1. The Bank hereby unconditionally and irrevocably undertakes to pay to the Employer, upon its mere first written demand, and without any demur, reservation, recourse, contest or protest, and without any reference to the Contractor, such sum or sums up to an aggregate sum of the Guarantee Amount as the Employer shall claim, without the Employer being required to prove or to show grounds or reasons for its demand and/or for the sum specified therein.

2. A letter from the Employer, under the hand of an authorized officer that the Contractor has committed default in the due and faithful performance of all or any of its obligations for under and in accordance with the Agreement shall be conclusive, final and binding on the Bank. The Bank further agrees that the Employer shall be the sole judge as to whether the Contractor is in default in due and faithful performance of its obligations during and under the Agreement and its decision that the Contractor is in default shall be final, and binding on the Bank, notwithstanding any differences between the Employer and the Contractor, or any dispute between them pending before any court, tribunal, arbitrators or any other Employer or body, or by the discharge of the Contractor for any reason whatsoever.

3. In order to give effect to this Guarantee, the Employer shall be entitled to act as if the Bank were the principal debtor and any change in the constitution of the Contractor and/or the Bank, whether by their absorption with any other body or corporation or otherwise, shall not in any way or manner affect the liability or obligation of the Bank under this Guarantee.

4. It shall not be necessary, and the Bank hereby waives any necessity, for the Employer to proceed against the Contractor before presenting to the Bank its demand under this Guarantee.

5. The Employer shall have the liberty, without affecting in any manner the liability of the Bank under this Guarantee, to vary at any time, the terms and conditions of the Retention Money and any of the rights and powers exercisable by the Employer against the Contractor, and either to enforce or forbear from enforcing any of the terms and conditions contained in the Agreement and/or the securities available to the Employer, and the Bank shall not be released from its liability and obligation under these presents by any exercise by the Employer of the liberty with reference to the matters aforesaid or by reason of time being given to the Contractor or any other forbearance, indulgence, act or omission on the part of the Employer or of any other matter or thing whatsoever which under any law relating to sureties and guarantors would but for this provision have the effect of releasing the Bank from its liability and obligation under this Guarantee and the Bank hereby waives all of its rights under any such law.

6. This Guarantee is in addition to and not in substitution of any other guarantee or security now or which may hereafter be held by the Employer in respect of or relating to the Retention Money.

7. Notwithstanding anything contained hereinbefore, the liability of the Bank under this Guarantee is restricted to the Guarantee Amount and this Guarantee will remain in force for the period specified in paragraph 8 below and unless a demand or claim in writing is made by the Employer on the Bank under this Guarantee all rights of the Employer under this Guarantee shall be forfeited and the Bank shall be relieved from its liabilities hereunder.

8. The Guarantee shall cease to be in force and effect 90 (ninety) days after the date of the Completion Certificate specified in Clause 12.4 of the Agreement.

9. The Bank undertakes not to revoke this Guarantee during its currency, except with the previous express consent of the Employer in writing, and declares and warrants that it has the power to issue this Guarantee and the undersigned has full powers to do so on behalf of the Bank.

10. Any notice by way of request, demand or otherwise hereunder may be sent by post addressed to the Bank at its above referred branch, which shall be deemed to have been duly authorised to receive such notice and to effect payment thereof forthwith, and if sent by post it shall be deemed to have been given at the time when it ought to have been delivered in due course of post and in proving such notice, when given by post, it shall be sufficient to prove that the envelope containing the notice was posted and a certificate signed by an officer of the Employer that the envelope was so posted shall be conclusive.

11. This Guarantee shall come into force with immediate effect and shall remain in force and effect up to the date specified in paragraph 8 above or until it is released earlier by the Employer pursuant to the provisions of the Agreement.

Signed and sealed this ……. day of ……., 20…… at …….

SIGNED, SEALED AND DELIVERED

For and on behalf of the Bank by:

(Signature)

(Name)

(Designation)

(Code Number)

(Address)

NOTES:

i. The bank guarantee should contain the name, designation and code number of the officer(s) signing the guarantee.
ii. The address, telephone number and other details of the head office of the Bank as well as of issuing branch should be mentioned on the covering letter of issuing branch.

SCHEDULE - H
(See Clauses 10.1.4 and 15.1)
Contract Price

1.1 The Contract Price for this Agreement is **Rs. 349,16,54,477.00 (excluding GST)**

1.2 Contract Price for different components of works shall be calculated as specified below:

Table H-1 Form of Schedule of rates and contract price

ITEM NO	QTY	DESCRIPTION	UNIT	RATE (RS.)	AMOUNT (RS.)
1	2.00	Supply, transport to site, deliver, construct test and anchor piles/system, install testing arrangements equipment and spares, barges, reaction anchors, structural frame systems with working platforms and access ways as necessary with provision of specialist personal, to carry out initial vertical pile load test on test pile (bored cast in-situ pile) location and diameter specified by the Engineer-in-charge including construction of test pile, anchor pile, anchorage system, kent ledge frame, testing equipment, labour, etc with interpretation of test results complete. The cost of all materials such as RCC (cement, sand, aggregate, water), reinforcement, structural steel, nuts and bolts, prestressing wires, testing equipment, etc all complete shall be paid under this item. Load test shall be conducted on test piles with a maximum load of 3 times the working load on piles. Test pile and anchor piles or anchorage system if any shall be completely cut and removed above seabed after the completion of test. Note :	Nos	94,80,281.00	1,89,60,562.00

ITEM NO	QTY	DESCRIPTION	UNIT	RATE (RS.)	AMOUNT (RS.)
		Test pile shall be carried out prior to any working pile construction and the location of test pile shall not obstruct the working pile. Test pile location shall be within the proposed jetty area.			
2	84.00	Carrying out Routine Dynamic load test on vertical pile in jetty and approach trestle with test load and testing procedure as per ASTM 4945 latest, including cost of all materials for making platform with steel members, weight materials, all labour charges, workmanship instrumentation, electronic devices, mechanical handling equipment, all other materials required for successful completion of load test, including removal of added portion of pile for testing after completion of test. Note : Dynamic load test shall be carried out on working piles and the pile head shall be extended by at least 2m above the pile cut-off level. The test piles shall be selected by the Authority Engineer for each structure based his judgement and it is to be treated as final.	Nos	2,50,000.00	2,10,00,000.00
3	1110.00	Mobilization, transportation, shifting, and setting up of piling equipment including gantries, jack-up rigs/platforms, tripods, winches, pile driving rigs, rotary drilling rigs, bailers, chisels, etc., for each pile location; fabrication and erection of staging and pile driving arrangements using steel plates, girders, channels, angles, including all steel materials, welding, strutting, fixing, labour, tools, consumables, and	Nos	35,110.00	3,89,72,100.00

ITEM NO	QTY	DESCRIPTION	UNIT	RATE (RS.)	AMOUNT (RS.)
		complete mobilization and demobilization — for carrying out MS liner boring and pile concreting works as per approved methodology and Engineer-in-Charge's directions.			
4	2670.64	Supplying, fabricating, and driving MS liners for piles up to refusal level, including provision of stiffeners, bending, cutting, welding, and installation in position through all types of soil up to the specified level below seabed; providing temporary bracings and supports to maintain alignment and stability until completion of deck works, all complete as per drawings, specifications, and instructions of Engineer-in-Charge.	MT	1,23,841.00	33,07,34,669.71
5	140.00	Boring / drilling / bailing out through all types of soil / rock strata for 1400 mm dia for piles from the existing sea bed level to pile termination level including cost of winch / Pile driving rig, rotary drilling machine, RCD machine, bailer, chisel, POL, all labour charges, minor tools and plant etc. complete. Pile termination criteria shall be as specified in the construction drawings and specifications. Any tests including SPT, rock strength etc., as required shall be carried out by the contractor in addition to the energy criteria specified in the construction drawings. The cost includes all such testing at the specified laboratories or field, and no extra claim whatsoever shall be entertained in this regard.	Rmt	16,225.57	22,71,580.00
6	4778.20	Boring / drilling / bailing out through all types of soil / rock strata for 1200 mm dia for piles from the existing sea	Rmt	14,751.50	7,04,85,635.80

ITEM NO	QTY	DESCRIPTION	UNIT	RATE (RS.)	AMOUNT (RS.)
		bed level to pile termination level including cost of winch / Pile driving rig, rotary drilling machine, RCD machine, bailer, chisel, POL, all labour charges, minor tools and plant etc. complete. Pile termination criteria shall be as specified in the construction drawings and specifications. Any tests including SPT, rock strength etc as required shall be carried out by the contractor in addition to the energy criteria specified in the construction drawings. The cost includes all such testing at the specified laboratories or field and no extra claim whatsoever shall be entertained in this regard.			
7	324.00	Boring / drilling / bailing out through all types of soil / rock strata for 1000 mm dia for piles from the existing seabed level to pile termination level including cost of winch / Pile driving rig, rotary drilling machine, RCD machine, bailer, chisel, POL, all labour charges, minor tools and plant etc. complete. Pile termination criteria shall be as specified in the construction drawings and specifications. Any tests including SPT, rock strength etc as required shall be carried out by the contractor in addition to the energy criteria specified in the construction drawings. The cost includes all such testing at the specified laboratories or field and no extra claim whatsoever shall be entertained in this regard.	Rmt	13,055.33	42,29,928.00
8	10085.50	Boring / drilling / bailing out through all types of soil / rock strata for 750 mm dia for piles from the existing sea bed level to pile termination	Rmt	10,160.38	10,24,72,534.00

ITEM NO	QTY	DESCRIPTION	UNIT	RATE (RS.)	AMOUNT (RS.)
		level including cost of winch / Pile driving rig, rotary drilling machine, RCD machine, bailer, chisel, POL, all labour charges, minor tools and plant etc. complete. Pile termination criteria shall be as specified in the construction drawings and specifications. Any tests including SPT, rock strength etc as required shall be carried out by the contractor in addition to the energy criteria specified in the construction drawings. The cost includes all such testing at the specified laboratories or field and no extra claim whatsoever shall be entertained in this regard.			
9	2631.94	Providing and placing underwater grout in the annular space between the outer casing and the structural steel pile, including the cost of procurement, mixing, and placement of high-strength, non-shrink underwater grout conforming to relevant IS standards. The underwater grout shall be suitable for marine and corrosive environments, with high bond strength and chemical resistance. The material shall be placed using approved methodology to ensure complete filling of the annular space without voids or segregation. The scope includes surface preparation, cleaning, leak-proof shuttering or formwork where necessary, handling, mixing as per manufacturer's recommendations, pouring or pumping into position, and finishing. All labour, tools, equipment, material handling, curing if specified,	Cum	35,000.00	9,21,18,048.12

ITEM NO	QTY	DESCRIPTION	UNIT	RATE (RS.)	AMOUNT (RS.)
		and incidental works required to complete the activity in all respects shall be deemed to be included in the rate. Measurement shall be done in cubic meters of underwater grout placed.			
10	11494.40	Providing and laying REINFORCED CEMENT CONCRETE OF M-40 GRADE in accordance with IS 456 (Latest Edition) using graded crushed coarse aggregate 20 mm and down size in PILES at Approach Trestle and piled platforms and breakwater by using tremie with hopper arrangements , providing pockets, openings, recesses, chamfering, etc., wherever required, vibrating, tamping, curing and rendering if required to give a smooth and even surface etc. including providing window of suitable size 600 mm above cut-off level and letting the concrete to overflow and including plasticizer and Bipolar as per manufacture's specification .etc. all complete as specified, shown and directed. (Payment will be made for effective length of pile i.e. from founding level to cut-off level.) (Excluding the cost of Reinforcement) .The cement shall be Porland Slag Cement confirming to IS 455(Latest Edition). All works shall be carried out as per approved drawings, technical specifications, and as directed by the Engineer-in-Charge.	Cum	17,956.00	20,63,93,496.86
11	836.00	Dressing / chipping of the RCC pile head including cutting of steel liners & trimming of extra concreted pile above the designed cut off level and exposing the reinforcement to receive	Nos	9,250.00	77,33,000.00

ITEM NO	QTY	DESCRIPTION	UNIT	RATE (RS.)	AMOUNT (RS.)
		fresh concrete for beams, bracing, pile caps etc., bending the reinforcement for new works, cost of all equipment, all labour charges, minor tools etc.			
12	9435.00	Manufacturing, supplying, transporting, and erecting in position Reinforced Cement Concrete (RCC) precast elements for marine structures such as approach trestle, piled platforms, and breakwater—including pile muffs, beams, slabs, and other components—of M-40 grade concrete using 20 mm and down-size graded crushed stone aggregates/gravel. The rate shall include the cost of all moulds, shuttering, centering, concrete batching and mixing, vibration, tamping, curing, chamfering wherever required, finishing of top surfaces, provision of lifting hooks, metal inserts, making of recesses/pockets, transportation to site, and erection, levelling, aligning and fixing in position at all levels and locations. Also includes cost of plasticizer and bipolar admixtures as per manufacturer's specifications. Excludes cost of reinforcement and MS inserts. Cement shall be Portland Slag Cement conforming to IS:455 (latest edition). All works shall be carried out as per approved drawings, technical specifications, and as directed by the Engineer-in-Charge.	Cum	30,956.57	29,20,75,251.52
13	10452.86	Providing and laying Reinforced Cement Concrete (RCC) of M-40 grade using 20 mm and down-size graded crushed stone aggregates/gravel for	Cum	18,196.00	19,02,00,227.41

ITEM NO	QTY	DESCRIPTION	UNIT	RATE (RS.)	AMOUNT (RS.)
		structural components such as foundations, pile caps, beams, slabs, pedestals, pipe sleepers, and surface applications in approach trestle, piled platforms, and breakwater structures. The rate shall include the cost of mixing, transporting, placing in position, vibrating, tamping, curing, rendering (if required) to obtain a smooth and even finish, including the provision of plasticizer and bipolar admixtures as per manufacturer's specifications. The item shall also include necessary formwork, staging, shuttering, centering, fixing and removal, as well as forming pockets, recesses, openings, chamfering edges, and concreting in all shapes, levels, depths, and thicknesses as per drawings and directions. The cement used shall be Portland Slag Cement conforming to IS:455 (latest edition). Excludes cost of reinforcement steel. All works to be executed as per technical specifications and as directed by the Engineer-in-Charge.			
14	7847.30	Manufacturing, supplying, transporting, and erecting in position Reinforced Cement Concrete (RCC) pontoon units using M-45 grade concrete with Portland Slag Cement conforming to IS:455 (latest edition) and well-graded crushed stone aggregate of 10 mm size or less. The rate shall include the cost of batching, mixing, placing, compacting by vibration, tamping, curing, rendering (if required) to achieve the specified surface finish, and all necessary	Cum	49,627.00	38,94,37,711.45

ITEM NO	QTY	DESCRIPTION	UNIT	RATE (RS.)	AMOUNT (RS.)
		arrangements for ensuring structural integrity and floatation performance. The rate shall also include all required staging, formwork, shuttering, and support systems necessary for casting, as well as the complete transportation of the pontoon to site, erection and fixing in position, including alignment and securing with guide pin piles using locking mechanisms as per drawings and specifications. Additionally, the rate shall cover the cost of obtaining necessary third-party certifications from approved inspection agencies for compliance with quality and dimensional requirements. Excludes the cost of reinforcement steel. Payment shall be made in accordance with Table H2 of the Agreement. All works shall be carried out as per approved construction methodology, technical specifications, and as directed by the Engineer-in-Charge.			
15	21063.88	Supplying and placing closed-cell, water-resistant, lightweight foam (such as Expanded Polystyrene (EPS) or equivalent marine-grade foam) inside the cavity of concrete pontoon units for buoyancy and structural support. The foam shall conform to relevant marine specifications for density, compressive strength, and water absorption, ensuring long-term durability and resistance to marine environmental conditions. The rate shall include the cost of procurement, cutting/trimming to fit the pontoon cavities, handling,	Cum	12,417.00	26,15,50,240.18

ITEM NO	QTY	DESCRIPTION	UNIT	RATE (RS.)	AMOUNT (RS.)
		placement, bonding (if required), sealing joints, all necessary labour, tools, equipment, and materials required for complete installation. The item also includes surface preparation inside the pontoon to ensure proper placement of foam and compliance with design drawings and specifications. All work shall be carried out as per approved methodology and to the satisfaction of the Engineer-in-Charge. The foam material shall be certified by an approved inspection agency. Measurement and payment shall be made as per the unit of volume (cubic metre) or as specified in the contract.			
16	2251.18	Supplying, fabricating, and installing Stainless Steel (SS 304/316 grade) trench covers of 3 mm thickness over concrete pontoons including provision of manholes at required locations as per the approved construction drawings. The trench covers shall be of adequate size, shape, and finish, with anti-skid surface (e.g., chequered plate pattern) suitable for marine environments, and designed to withstand expected loading conditions. The rate shall include the cost of all materials, fabrication, cutting, edge preparation, handles, hinges (if specified), support framing (if required), and necessary surface treatment to prevent corrosion. It shall also include transportation to site, placement, alignment, bolting/welding as required, sealing around edges to prevent water ingress, and securing of all trench covers	Sqm	14,519.00	3,26,84,882.42

ITEM NO	QTY	DESCRIPTION	UNIT	RATE (RS.)	AMOUNT (RS.)
		and manholes in position over the pontoon. All works shall be carried out in accordance with relevant standards, approved specifications, and to the satisfaction of the Engineer-in-Charge. Measurement shall be based on the surface area covered (in square metres) unless otherwise specified.			
17	910.00	Supplying, fabricating, and installing solid Stainless Steel (SS 316 grade) pins of size and dimensions as specified in the drawings for interconnection of adjacent pontoon units, including necessary accessories such as stainless steel nuts, washers, retaining plates, and locking arrangements. The pins shall be machined to precision tolerances, with smooth surface finish, and corrosion-resistant properties suitable for continuous marine exposure. The rate shall include the cost of all materials, fabrication, threading, drilling, chamfering, cleaning, and assembly of components; transportation to site; insertion and alignment of pins in the pontoon connection sleeves; bolting, locking and final tightening as per manufacturer's or design specifications; and all tools, tackles, labour, and incidental items required to complete the work in all respects. All work shall be carried out in accordance with the approved design, technical specifications, and to the satisfaction of the Engineer-in-Charge. Measurement shall be made per number of pin	Nos	1,452.00	13,21,320.00

ITEM NO	QTY	DESCRIPTION	UNIT	RATE (RS.)	AMOUNT (RS.)
		assemblies installed, complete with all accessories.			
18	910.00	Supplying, fabricating, and installing aluminium protection boxes of specified size (e.g., 300 mm x 300 mm or as per drawing) at the ends of concrete pontoon units for securing and enclosing the solid stainless steel connection pins. The boxes shall be made from marine-grade aluminium alloy (minimum grade 5052 or equivalent), corrosion-resistant and suitable for marine environmental conditions. The work shall include provision of covers/lids with proper fastening mechanism (screws or hinges), drainage holes (if required), and all necessary surface finishing, edge rounding, welding, and corner sealing to ensure structural stability and durability. The rate shall include all materials, labour, tools, fabrication charges, transportation to site, installation on the pontoon face including alignment, fixing with SS fasteners, sealing, and testing for proper fitment. All works shall be executed as per the approved drawings and specifications and to the satisfaction of the Engineer-in-Charge. Measurement shall be made per number of aluminium boxes installed complete in all respects.	Nos	4,066.00	37,00,060.00
19	4608.00	Supplying and fixing of D-Type rubber fenders of size, length, and profile as specified in the approved drawings, including all necessary fasteners, fixing bolts (SS 316 or hot-dip galvanized as per design),	Rmt	12,196.00	5,61,99,168.00

ITEM NO	QTY	DESCRIPTION	UNIT	RATE (RS.)	AMOUNT (RS.)
		washers, backing plates, and drilling and installation on the concrete or steel surface. The fender shall be manufactured from high-quality, UV-resistant, ozone-resistant, and marine-grade natural or synthetic rubber suitable for long-term marine exposure and heavy-duty applications. The fenders shall be free from surface cracks, voids, air pockets, or deformities and shall be designed to absorb high impact energy from berthing vessels while minimizing reaction force. The rate shall include all materials, labour, tools, surface preparation, alignment, and secure fixing as per design and site conditions. All work shall be carried out in accordance with the manufacturer's recommendations, relevant standards (such as IS, PIANC guidelines, or equivalent), and to the satisfaction of the Engineer-in-Charge. Measurement shall be made in running metres of fender installed, complete in all respects.			
20	2542.00	Supplying and installing marine-grade mooring cleats fabricated from Stainless Steel conforming to IS 6911 (Grade: SS316 or SS316L), of size, type, and capacity as specified in the approved drawings, including all necessary fixtures such as stainless steel anchor bolts, nuts, washers, and base plates. The cleats shall be suitable for marine applications and capable of withstanding the mooring loads as per design. Installation shall include drilling, alignment, fixing over concrete pontoons or	Nos	5,227.00	1,32,87,034.00

ITEM NO	QTY	DESCRIPTION	UNIT	RATE (RS.)	AMOUNT (RS.)
		platforms, grouting where required, and ensuring proper embedment and anchorage. All works shall be carried out as per IS: 10096 (Code of practice for installation of mooring and berthing fittings on jetties), relevant BIS specifications, approved drawings, and directions of the Engineer-in-Charge. The rate shall be inclusive of all procurement, transport, handling, labour, tools, equipment, erection, and all incidental works required to complete the installation in all respects			
21	548.20	Supplying and fixing neoprene elastomeric pad of 60 mm thickness at the interface of adjacent concrete pontoons, of shape, size, and configuration as specified in the approved drawings. The neoprene pad shall be manufactured from chloroprene rubber (neoprene) conforming to IS 3400 (Parts 1 to 14) and IS 13360, with physical properties suitable for marine and structural applications, including high resistance to UV, salt water, oil, and aging. The pad shall be provided with grooves or profiles (if required), accurately cut and finished, and fixed in position using approved marine-grade adhesive/sealant or fasteners as per the manufacturer's recommendation. All works shall be executed as per relevant IS codes, approved methodology, and as directed by the Engineer-in-Charge. The rate shall be inclusive of cost of material, transportation, handling, fabrication, surface	Sqm	28,225.00	1,54,72,945.00

ITEM NO	QTY	DESCRIPTION	UNIT	RATE (RS.)	AMOUNT (RS.)
		preparation, placement, alignment, installation tools, labour, and all other incidental works complete.			
22	568.00	Supplying and installing aluminium sacrificial anodes for cathodic protection of concrete pontoons and associated marine steel structures, of type, shape, size, and weight as specified in the drawings and conforming to IS 4682 (Part 1):1992 and relevant international standards for marine-grade sacrificial anodes. The aluminium anodes shall be high-efficiency marine-grade alloy (typically Al-Zn-In alloy), with steel inserts for welding/bolting and coated at the interface to avoid passivation. Installation shall include surface preparation, attachment by welding or bolting using stainless steel fasteners, connection of anode cables, sealing, and testing of electrical continuity and potential readings, all as per the approved protection scheme and under supervision of the Engineer-in-Charge. The rate shall be inclusive of cost of anode, insert materials, welding or bolting, cables, consumables, testing, transportation, handling, labour, and all other incidental works, complete in all respects.	Nos	87,113.00	4,94,80,184.00
23	28.33	Designing, fabricating, transporting, and erecting aluminium gangway of dimensions, profile, and configuration as specified in the drawings, using marine grade aluminium conforming to IS 12874 and alloy 5052. The gangway shall be	MT	8,09,389.00	2,29,27,660.93

ITEM NO	QTY	DESCRIPTION	UNIT	RATE (RS.)	AMOUNT (RS.)
		suitable for marine environments, allowing for tidal variations and safe pedestrian movement between pontoons and fixed structures. The work includes cutting, welding, bolting, and assembling aluminium components such as structural framing, handrails, rollers, stoppers, and hinges as required. All structural design parameters shall adhere to relevant IS codes including IS 875 (for live loads) and IS 1893 (for seismic loads, if applicable). The quoted rate shall be inclusive of all costs towards material procurement (including aluminium 5052 alloy sections and plates), fabrication, transportation to site, mechanical lifting, installation in position, anchoring to pontoon and jetty ends, and securing all connections as per drawings. It shall also include all labour, tools, fixtures, fasteners, consumables, supports during erection, and all incidental works required to complete the item in all respects. The item shall also include coordination and submission of quality assurance documents, and obtaining required third-party inspection and certification as directed by the Engineer-in-Charge.			
24	1.00	Supply, fabrication, and installation of all necessary accessories for the aluminium gangway as specified in Section 7 of Volume I of the tender document, including but not limited to hinge pin assembly with nylon bush, bearing pads, conical bolts, aluminium handrails, side	L.S	75,00,000.00	75,00,000.00

ITEM NO	QTY	DESCRIPTION	UNIT	RATE (RS.)	AMOUNT (RS.)
		curb plates, lifting eye plates, drainage provisions, rubber buffer strips (if applicable), mounting/fixing brackets, end roller assemblies (where required), expansion fasteners, and identification nameplates. All accessories shall be of marine-grade aluminium, stainless steel (SS316), high-density UV-resistant nylon, or other specified corrosion-resistant materials as per the design requirements. The scope shall include procurement, transportation, handling, fabrication in a covered workshop environment, surface finishing (if specified), inspection, testing, marking, and complete installation at site in accordance with the technical specifications, drawings, and instructions of the Engineer-in-Charge. The quoted rate shall be inclusive of all materials, labour, tools, consumables, transport, taxes, and duties required for the complete execution of the work on a lump sum basis.			
25	369.60	Supplying, transporting, and installing Wood Plastic Composite (WPC) decking boards of 22mm thickness and specified width, manufactured from high-quality composite material comprising recycled wood fibres and thermoplastics, designed for enhanced durability, UV resistance, slip resistance, and resistance to rot, corrosion, and termites. The decking shall be suitable for use in marine or outdoor environments, conforming to relevant Indian Standards and technical specifications.	Sqm	7,550.00	27,90,480.00

ITEM NO	QTY	DESCRIPTION	UNIT	RATE (RS.)	AMOUNT (RS.)
		The boards shall be fixed over leveled structural supports using aluminium fasteners, clips, or brackets as per the manufacturer's installation guidelines, ensuring appropriate spacing for expansion and drainage. The cost shall include procurement, transportation to site, complete installation with necessary edge trims and skirtings, and all required accessories, cutting, shaping, and securely fixing in position. The quoted rate shall be per square meter and shall include all labour charges, minor tools, consumables, and incidentals required to complete the work in all respects as per the drawings and as directed by the Engineer-in-Charge.			
26	4.09	Providing and placing Fibre Impregnated Expansion Joint Board of approved make and quality, conforming to IS 1838 (Part 1): 1983 or latest revision, of required thickness and depth as indicated in the drawings and specifications. The expansion joint shall be composed of bitumen-saturated fibreboard with uniform impregnation and density, suitable for use in concrete structures exposed to weather, water, and marine conditions. The joint board shall be cut to required sizes and installed vertically in expansion joints between concrete panels, ensuring firm contact with adjacent surfaces. The cost shall include supplying, transporting, cutting to size, and placing in position the expansion joint board,	Sqm	2,904.00	11,870.10

ITEM NO	QTY	DESCRIPTION	UNIT	RATE (RS.)	AMOUNT (RS.)
		including all labour, tools, and materials required for proper placement. The rate shall be inclusive of all wastage, overlaps, sealant applications (if specified), and ensuring continuity of the joint along the full depth and length as shown in drawings or as directed by the Engineer-in-Charge. Payment shall be made per square meter of surface area covered.			
27	201.45	Supply, fabricate, transport, handle and erect in position stainless steel handrails using pipes and toe plates using stainless steel conforming to SS316L including profile cutting, assembling, hoisting, fixing in position, welding, inspection and applying a priming coat of approved steel primer and top coat of minimum thickness as specified in the specifications made of approved paint all as per specifications and drawings including cost of all materials, fitting charges, all labour charges, transportation charges and minor tools etc. complete.	Rmt	7,762.00	15,63,654.90
28	1258.63	Supply, transport to site, deliver, place, compact, cure and test M30 grade plain cement concrete wearing coat of 100 mm average thickness with polyproplene fibers laid at suitable slope on the piled platforms, breakwater and approach trestle complete as per drawings and specification including expansion joints at approved locations and filling the expansion joints with asphaltic material like mexphlt etc. including cost of plastciser, bipolar etc. as per	Cum	11,149.00	1,40,32,449.84

ITEM NO	QTY	DESCRIPTION	UNIT	RATE (RS.)	AMOUNT (RS.)
		manufacturer's specification.			
29	7440.00	Supply, deliver and transportation of CR reinforcement steel with a minimum yield strength of 500 N/mm2 and minimum elongation of 16% or equivalent confirming to IS 1786 (with ISI Mark) with corrosion resistant (CR) element for Fabrication and fixing of reinforcement cages as per drawing for cast-in-situ piles , columns, beams, slabs, in buildings etc including cost of fabrication, fixing dowels, shear ties, cutting, bending, tying, lapping and welding in position wherever necessary with stainless steel 18 SWG annealed binding wire, all labour charges, transportation charges of all materials to Work Site, cost of binding wires, all other items including cover blocks required for the work and minor tools etc. complete. All works shall be carried out as per approved drawings, technical specifications, and as directed by the Engineer-in-Charge, (45% of the item rate shall be paid on supply of steel at site & 55% of the item rate shall be paid after fixing of reinforcement and completion of concrete)	MT	84,322.00	62,73,55,834.65
30	242.94	Supplying, transporting, storing, fabricating & erecting in position and testing/examining bolted and/ or welded hot dipped galvanized (120 microns) STEEL WORKS of Grade E250(confirming to per IS:2062) at all locations and levels, including all builtup sections/ compound sections made out of rolled sections and/or plates/	MT	1,54,700.00	3,75,82,614.60

ITEM NO	QTY	DESCRIPTION	UNIT	RATE (RS.)	AMOUNT (RS.)
		insert plates/ bent plates in all types of structural frameworks, guide yoke or any other structural items or accessories to support pontoons or such other structures, etc., cutting to required size, straightening/ bending if required, edge preparation, cleaning, preheating, bolting/ welding of joints, (including sealing the joints of box sections with continuous welding and plugging any open ends & holes of box sections), finishing edges by grinding, fixing in line and level with temporary staging & bracing and removal of the same after erection and submission of detailed fabrication drawings etc., all complete.			
31	2767.71	Supplying, fabricating, transporting, and erecting in position structural steel tubular piles of required diameter, wall thickness, and length as specified in the drawings, using E350 grade steel conforming to IS 2062 (latest revision), including all cutting, edge preparation, beveling, rolling (if required), welding, fitting of stiffeners or internal rings, and provision of driving shoes where specified. The item includes the cost of all materials, fabrication at an approved yard or site, full-length welding with required non-destructive testing (NDT), application of protective coating (if specified), transportation of fabricated piles to site, staging, lifting, handling, positioning, and driving of piles to the specified depth or to refusal, as per approved methodology and directions	MT	1,60,110.00	44,31,37,728.02

ITEM NO	QTY	DESCRIPTION	UNIT	RATE (RS.)	AMOUNT (RS.)
		of the Engineer-in-Charge. The rate shall include the cost of all labour, tools, tackles, cranes/barges or other lifting equipment, setting out and positioning of piles with proper alignment and orientation as per drawings, consumables, welding rods, inspection/testing charges, and all incidental items required to complete the work in all respects. Payment shall be made based on the actual weight of E350 grade structural steel used (in metric tonnes), and no separate payment shall be made for laps, wastage, splicing, or temporary supports.			
32	213.10	Supply, fabricate, transport, handle and install UPVC SWR Type B conforming to IS - 13592 (With ISI Mark) drainpipes including fittings of diameter 110mm as per drawings and specifications including cutting, hoisting, fixing in position and including cost of all materials, fitting charges, all labour charges, transportation charges and minor tools etc. complete.	Rmt	550.00	1,17,205.00
33	58.80	Supply, transport to site, deliver, place, compact, cure and test Granular subbase of thickness laid at suitable slope on the reclamation area and other structures complete as per drawings and specification including labour and minor tools complete.	Cum	2,533.00	1,48,940.40
34	2.68	Supplying, fabricating, and fixing crane rail of specified section and profile as indicated in the drawings, including procurement, cutting to length, aligning, levelling, and fixing in	MT	3,80,000.00	10,18,400.00

ITEM NO	QTY	DESCRIPTION	UNIT	RATE (RS.)	AMOUNT (RS.)
		position over the top surface of the supporting concrete or steel beam using approved methods. The scope shall include providing necessary rail clips, anchor bolts, steel base plates, grout pockets, neoprene pads (if specified), and other associated accessories to ensure proper installation and load transfer. All operations including drilling, welding, or bolting, grinding of joints, installation of expansion joints, and ensuring linear alignment and level tolerances shall be carried out in accordance with relevant IS standards and technical specifications. The work shall also include grouting beneath the base plates with non-shrink grout and application of corrosion protection wherever required. The cost shall include all labour, tools, equipment, scaffolding, consumables, and transportation of materials to site, including all incidental works required to complete the job in all respects as per drawings and engineer's direction. Measurement shall be in MT of crane rail laid and fixed.			
35	310.00	Supplying, transporting, storing, fabricating & erecting in position and testing/examining bolted and/ or welded hot dipped galvanized (120 microns) crash barrier(confirming to per IS:2062) cutting to required size, straightening/ bending if required, edge preparation, cleaning, preheating, bolting/ welding of joints, (including sealing the joints of box sections with continuous welding and	MT	1,36,224.00	4,22,29,440.00

ITEM NO	QTY	DESCRIPTION	UNIT	RATE (RS.)	AMOUNT (RS.)
		plugging any open ends & holes of box sections), finishing edges by grinding, fixing in line and level with temporary staging & bracing and removal of the same after erection and submission of detailed fabrication drawings, preparing the specified, surface for painting and applying a priming coat of approved steel primer and top coat of minimum thickness as specified in the specifications made of approved paint after fabrication etc., all complete.			
36	354.00	Supplying, fabricating, transporting, erecting and commissioning 12-meter-high octagonal or round tapered lighting poles made of hot-dip galvanized steel, complete with base plates, anchor bolts and all necessary mounting accessories, conforming to IS 875 (Part 3) for structural stability and IS 2062 for material specifications. The galvanization shall be done in accordance with IS 2629 / IS 4759 with a minimum zinc coating of 610 g/m² to ensure durability in marine and corrosive environments. Each pole shall be fitted with two energy-efficient LED luminaires of minimum 150W each or as specified in the drawings, with IP66-rated housing, electronic driver, and a system efficacy of not less than 120 lumens/watt, conforming to IS 16101 and IS 16106. The work shall include fabrication and casting of reinforced cement concrete (M25 grade) foundation blocks with embedded anchor bolts, cable entry	Nos	2,55,530.00	9,04,57,620.00

ITEM NO	QTY	DESCRIPTION	UNIT	RATE (RS.)	AMOUNT (RS.)
		sleeves and templates for bolt alignment, and shall also include the supply, laying and termination of 4-core, 6 sq.mm copper armoured cable from the nearby feeder point to the pole, including all terminations, glands and lugs. Each pole shall be provided with a proper earthing arrangement using copper earth plate, GI flat strip and earth pit as per IS 3043. The item also includes all electrical connections within the pole, mounting of luminaires, testing, commissioning, and obtaining necessary approvals and certifications from the designated inspection authority. The quoted rate shall be inclusive of all labour, materials, transportation, fabrication, minor civil works, and incidentals required to complete the work in all respects as per drawings and technical specifications.			
				TOTAL	**349,16,54,477.00**

The above unit rates shall be used for the calculation of actual payment to the contractor. However, the percentage increase or decrease as quoted by the contractor shall be used in addition to the above rates.

1.3 Procedure of payment for BOQ items

Table H-2 Definition of stages for partial payment

Item No	Item description	Payment Procedure
1)	Initial pile load test	Payment shall be made on construction and testing of the test piles as per the actual quantity executed at site. Payment can be divided as follows if required for intermediate payment to facilitate the cash flow. a) 20% on construction of test and anchor piles at site. b) 50% on completion of initial pile load test c) 30% submission of final report of the pile load test

Item No	Item description	Payment Procedure
		The above shall be worked out based on quoted rates by the contractor.
2)	Routine dynamic pile load test	Payment shall be made as per certified measurements on a monthly basis. Payment shall be made on actual quantity of certified measurements.
3)	Setting up for piling works	Payment shall be made as per certified measurements on a monthly basis. Payment shall be made on actual quantity of certified measurements.
4)	Liner fabrication and driving	Payment shall be made as per certified measurements on a monthly basis. Payment shall be made on actual quantity of certified measurements.
5)	1400mm soil / rock boring	Payment shall be made as per certified measurements on a monthly basis. Payment shall be made on actual quantity of certified measurements.
6)	1200mm soil / rock boring	Payment shall be made as per certified measurements on a monthly basis. Payment shall be made on actual quantity of certified measurements.
7)	1000mm soil / rock boring	Payment shall be made as per certified measurements on a monthly basis. Payment shall be made on actual quantity of certified measurements.
8)	750mm soil / rock boring	Payment shall be made as per certified measurements on a monthly basis. Payment shall be made on actual quantity of certified measurements.
9)	Underwater grout	Payment shall be made as per certified measurements on a monthly basis. Payment shall be made on actual quantity of certified measurements.
10)	Concrete for piles	Payment shall be made as per certified measurements on a monthly basis. Payment shall be made on actual quantity of certified measurements.
11)	Dressing of pile heads	Payment shall be made as per certified measurements on a monthly basis. Payment shall be made on actual quantity of certified measurements.
12)	Precast concrete works	Payment shall be made as per certified measurements on a monthly basis for all concrete superstructure works. Payment for pre-cast concrete works can be divided as per the stage payment defined below. a) 60% upon completion of precast items at precast yard. b) 40% on transportation and placement at

Item No	Item description	Payment Procedure
		construction site of the berth. The above shall be worked out based on quoted rates by the contractor.
13)	In-situ concrete works	Payment shall be made as per certified measurements on a monthly basis. Payment shall be made on actual quantity of certified measurements.
14)	Casting and erection of concrete pontoons	Payment shall be made on casting, transportation and erection of the concrete pontoon as per the rate quoted by the contractor against this item. Payment can be divided as follows if required for intermediate payment to facilitate the cash flow. a) 60% on casting of pontoon as per dimensions specified in the drawings at the yard. b) 40% on obtaining certification and erection of pontoon in position and locking to the guide pin pile. The above shall be worked out based on quoted rates by the contractor.
15)	Foam inside concrete pontoons	Payment shall be made on supply, transportation and erection of foam as per the rate quoted by the contractor against this item. Payment can be divided as follows if required for intermediate payment to facilitate the cash flow. a) 60% on placement of foam inside the pontoon as per dimensions specified in the drawings at the yard. b) 40% on obtaining certification and erection of pontoon in position and locking to the guide pin pile. The above shall be worked out based on quoted rates by the contractor.
16)	Stainless steel trench covers	Payment shall be made on supply, fabrication and erection of stainless-steel trench covers as per the actual quantity executed at site. Payment can be divided as follows if required for intermediate payment to facilitate the cash flow. a) 60% on supply of material at yard and on completion of fabrication including painting b) 30% on transportation and delivery at site c) 10% On completion of erection The above shall be worked out based on quoted rates by the contractor.
17)	Stainless steel pins	Payment shall be made on supply, fabrication and erection of stainless-steel pins as per the actual quantity executed at site. Payment can be divided as follows if required for intermediate payment to facilitate the cash flow. a) 60% on supply of material at yard and on completion of fabrication including painting b) 40% on transportation and installation at site The above shall be worked out based on quoted rates by

Item No	Item description	Payment Procedure
		the contractor.
18)	Aluminium protection boxes	Payment shall be made on supply, fabrication and erection of aluminium protection boxes as per the actual quantity executed at site. Payment can be divided as follows if required for intermediate payment to facilitate the cash flow. a) 60% on supply of material at yard and on completion of fabrication including painting b) 30% on transportation and delivery at site c) 10% On completion of erection The above shall be worked out based on quoted rates by the contractor.
19)	D-type fender	Payment shall be made on supply, erection and commissioning of fenders as per the rate quoted by the contractor against this item. Payment can be divided as follows if required for intermediate payment to facilitate the cash flow. a) 70% on Delivery of fenders, and fixtures complete at site. b) 30% on completion of erection of all fenders and cleats and fixtures. The above shall be worked out based on quoted rates by the contractor.
20)	Mooring cleats	Payment shall be made on supply, erection and commissioning of mooring cleats as per the rate quoted by the contractor against this item. Payment can be divided as follows if required for intermediate payment to facilitate the cash flow. a) 70% on Delivery of mooring cleats, and fixtures complete at site. b) 30% on completion of erection of all fenders and cleats and fixtures. The above shall be worked out based on quoted rates by the contractor.
21)	Neoprene elastomeric pad	Payment shall be made on supply, erection and commissioning of neoprene pads as per the rate quoted by the contractor against this item. Payment can be divided as follows if required for intermediate payment to facilitate the cash flow. a) 70% on Delivery of neoprene pad, and fixtures complete at site. b) 30% on completion of installation of the neoprene pad at site. The above shall be worked out based on quoted rates by the contractor.
22)	Cathodic protection (anodes)	Payment shall be made on supply, erection and commissioning of anodes as per the rate quoted by the contractor against this item. Payment can be divided as follows if required for intermediate payment to facilitate the cash flow. a) 70% on Delivery of anodes and fixtures complete at site. b) 30% on completion of installation of anodes and

Item No	Item description	Payment Procedure
		fixtures at site. The above shall be worked out based on quoted rates by the contractor.
23)	Fabrication and erection of aluminium gangways	Payment shall be made on supply, fabrication, erection, and commissioning of gangways as per the rate quoted by the contractor against this item. Payment can be divided as follows if required for intermediate payment to facilitate the cash flow. a) 70% On supply and fabrication of gangway at the yard. b) 30% On completion of erection and commissioning. The above shall be worked out based on quoted rates by the contractor.
24)	Gangway accessories	Payment shall be made on supply, erection, and commissioning of accessories as per the rate quoted by the contractor against this item. Payment can be divided as follows if required for intermediate payment to facilitate the cash flow. a) 70% of cost of each item on supply and transportation of gangway accessories to the yard. b) 30% On completion of erection and commissioning of the gangway. The above shall be worked out based on quoted rates by the contractor.
25)	WPC decking	Payment shall be made on supply, erection, and commissioning of WPC decking as per the rate quoted by the contractor against this item. Payment can be divided as follows if required for intermediate payment to facilitate the cash flow. a) 70% On supply and fabrication of WPC decking at the yard. b) 30% On completion of erection and commissioning of the gangway. The above shall be worked out based on quoted rates by the contractor.
26)	Expansion joint	Payment shall be made as per certified measurements on a monthly basis. Payment shall be made on actual quantity of certified measurements.
27)	Stainless steel Handrails	Payment shall be made on supply, fabrication and erection of handrails as per the actual quantity executed at site. Payment can be divided as follows if required for intermediate payment to facilitate the cash flow. a) 60% on supply of material at yard and on completion of fabrication including painting b) 30% on transportation and delivery at site c) 10% On completion of erection

Item No	Item description	Payment Procedure
		The above shall be worked out based on quoted rates by the contractor.
28)	Wearing coat (M30)	Payment shall be made as per certified measurements on a monthly basis. Payment shall be made on actual quantity of certified measurements.
29)	Reinforcement steel	Payment shall be made on supply, fabrication and erection of steel reinforcement as per the rate quoted by the contractor against this item. Payment can be divided as follows if required for intermediate payment to facilitate the cash flow. a) 40% on supply and delivery of the reinforcement steel rods at site. b) 60% on bending as per approved drawings, installation of reinforcement at site and concreting of the respective component. The above shall be worked out based on quoted rates by the contractor.
30)	Steel fabrication works	Payment shall be made on supply, fabrication and erection of steel structures as per the actual quantity executed at site. Payment can be divided as follows if required for intermediate payment to facilitate the cash flow. a) 60% on supply of material at yard and on completion of fabrication including painting b) 30% on transportation and delivery at site c) 10% On completion of erection The above shall be worked out based on quoted rates by the contractor.
31)	Structural steel piles	Payment shall be made on supply, fabrication and erection of steel piles as per the rate quoted by the contractor against this item. Payment can be divided as follows if required for intermediate payment to facilitate the cash flow. a) 60% on supply and fabrication of the guide pin piles at the yard. b) 40% on completion of erection and grouting of the guide pin piles in position The above shall be worked out based on quoted rates by the contractor.
32)	UPVC drain pipes	Payment shall be made as per certified measurements on a monthly basis. Payment shall be made on actual quantity of certified measurements.
33)	Granular sub base	Payment shall be made as per certified measurements on a monthly basis. Payment shall be made on actual quantity of certified measurements.
34)	Crane rail	Payment shall be made on supply, erection and commissioning of crane rails as per the rate quoted by the contractor against this item. Payment can be divided as follows if required for intermediate payment to

Item No	Item description	Payment Procedure
		facilitate the cash flow. a) 60% on supply and crane rail of required dimensions at the yard. b) 40% on completion of transportation and installation of crane rails in required position at site. The above shall be worked out based on quoted rates by the contractor.
35)	Crash barrier	Payment shall be made on supply, fabrication and erection of crash barrier as per the actual quantity executed at site. Payment can be divided as follows if required for intermediate payment to facilitate the cash flow. a) 60% on supply of material at yard and on completion of fabrication including painting b) 30% on transportation and delivery at site c) 10% On completion of erection The above shall be worked out based on quoted rates by the contractor.
36)	Light pole	Payment shall be made on supply, erection and commissioning of light poles with LED lights as per the rate quoted by the contractor against this item. Payment can be divided as follows if required for intermediate payment to facilitate the cash flow. a) 60% on supply and delivery of the light post with all fixtures and light at site. b) 40% on completion of transportation, installation and commissioning of light poles in at site. The above shall be worked out based on quoted rates by the contractor.

SCHEDULE - I
(See Clause 10.2.3)
DRAWINGS

1. Drawings

In compliance of the obligations set forth in Clause 10.2 of this agreement, the Employer shall furnish to the Contractor, free of cost, all Drawings for construction. The drawings provided by Employer are good for construction and shall not be modified or altered in any form without the written approval of the Employer. The tender drawings listed in Annex-I of this schedule-I as part of the tender document and other detailed construction drawings will be issued to the contractor after the signing of this agreement, and all these drawings will form part of this agreement. Revisions or changes if any to the drawings by the Engineer shall be intimated to the contractor.

Notwithstanding the above, the contractor shall also carry out residual engineering to develop design and drawings for the construction related works as stated 10.2.3 (b) and submit to the Engineer for approval.

2. Additional Drawings

If the Engineer / Engineer's Representative determines that for discharging its duties and functions under this Agreement, it requires any additional drawings, it may by notice provide to the Contractor additional drawings forthwith and such drawings will form part of Annex-I of this Schedule-I.

Annex - I
(Schedule - I)
List of Drawings

The drawings listed in table below are attached as part of the tender to define the scope of work elements in the project.

Table I-1 Drawings

No	Drawing No.	Description
1.	IITM-MBPA-YM-DWG-001	Drawing list (3 sheets)
2.	IITM-MBPA-YM-DWG-002	General Notes
3.	IITM-MBPA-YM-DWG-003	Location map and Borehole Layout
4.	IITM-MBPA-YM-DWG-004	Overall Layout
5.	IITM-MBPA-YM-DWG-005	Layout of Marina (2 Sheets)
6.	IITM-MBPA-YM-DWG-006	Spare
7.	IITM-MBPA-YM-DWG-007	Layout and Sections of Piled Jetty Breakwater (19 Sheets)
8.	IITM-MBPA-YM-DWG-008	Layout of Pontoons (12 Sheets)
9.	IITM-MBPA-YM-DWG-009	Details of Pontoon (25 Sheets)
10.	IITM-MBPA-YM-DWG-010	General arrangement and Details of Gangway (7 Sheets)
11.	IITM-MBPA-YM-DWG-011	Guide Pile/Guide Yoke Details (3 Sheets)
12.	IITM-MBPA-YM-DWG-012	General arrangement of boat ramp (3 Sheets)
13.	IITM-MBPA-YM-DWG-013	General Arrangement of Service Platform (6 Sheets)
14.	IITM-MBPA-YM-DWG-014	General Arrangement of Gangway Platform (15 Sheets)
15.	IITM-MBPA-YM-DWG-015	Layout and Sections of Approach Trestle (2 Sheets)
16.	IITM-MBPA-YM-DWG-101	Typical RC Details of Pile - Piled Jetty Breakwater (9 Sheets)
17.	IITM-MBPA-YM-DWG-102	Typical RC Details of Pile muff - Piled Jetty Breakwater (9 Sheets)
18.	IITM-MBPA-YM-DWG-103	Typical RC Details of Precast beam & Wall - Piled Jetty Breakwater (32 Sheets)
19.	IITM-MBPA-YM-DWG-104	Typical RC Details of Deck Slab - Piled Jetty Breakwater (11 Sheets)
20.	IITM-MBPA-YM-DWG-201	Typical RC Details of Pile – Approach Trestle (2 Sheets)
21.	IITM-MBPA-YM-DWG-202	Typical RC Details of Pile muff– Approach Trestle (3 Sheets)
22.	IITM-MBPA-YM-DWG-203	Typical RC Details of Deck beam – Approach Trestle (3 Sheets)
23.	IITM-MBPA-YM-DWG-203	Typical RC Details of Deck slab – Approach Trestle (6 Sheets)
24.	IITM-MBPA-YM-DWG-301	Typical RC Details of Pile – Service Platform (2 Sheets)
25.	IITM-MBPA-YM-DWG-302	Typical RC Details of Pile muff – Service Platform (3 Sheets)
26.	IITM-MBPA-YM-DWG-303	Typical RC Details of Beam – Service Platform (12 Sheets)
27.	IITM-MBPA-YM-DWG-304	Typical RC Details of Deck slab – Service Platform (5 Sheets)
28.	IITM-MBPA-YM-DWG-401	Typical RC Details of Pile – Gangway Platform (4 Sheets)
29.	IITM-MBPA-YM-DWG-402	Typical RC Details of Pile muff – Gangway Platform (4 Sheets)
30.	IITM-MBPA-YM-DWG-403	Typical RC Details of Deck Beam – Gangway Platform (4 Sheets)
31.	IITM-MBPA-YM-DWG-404	Typical RC Details of Deck slab – Gangway Platform (7 Sheets)
32.	IITM-MBPA-YM-DWG-501	Typical RC Details of Pile – Onshore boat ramp (2 Sheets)
33.	IITM-MBPA-YM-DWG-502	Typical RC Details of Pile muff – Onshore boat ramp (3 Sheets)
34.	IITM-MBPA-YM-DWG-503	Typical RC Details of Beam – Onshore boat ramp (5 Sheets)
35.	IITM-MBPA-YM-DWG-504	Typical RC Details of Slab – Onshore boat ramp (5 Sheets)
36.	IITM-MBPA-YM-DWG-505	Typical RC Details of Wall – Onshore boat ramp (2 Sheets)

SCHEDULE - J
(See Clause 10.3.2)
PROJECT COMPLETION SCHEDULE

1. Project Completion Schedule

During Construction period, the Contractor shall comply with the requirements set forth in this Schedule-J for each of the Project Milestones and the **Scheduled Completion Date**. Within 15 (fifteen) days of the date of each Project Milestone, the Contractor shall notify the Employer of such compliance along with necessary particulars thereof.

2. Project Milestone-I

2.1 Project Milestone-I shall occur on the date falling on the 228th (Two hundred and twenty-eight) day from the Appointed Date (the "**Project Milestone-I**").

2.2 Prior to the occurrence of Project Milestone-I, the Contractor shall have commenced the construction and submitted to the Employer duly and validly prepared Monthly Payment Statements for an amount not less than 10% (ten per cent) of the Contract Price.

3. Project Milestone-II

3.1 Project Milestone-II shall occur on the date falling on the 456th (Four hundred and fifty-six) day from the Appointed Date (the "**Project Milestone-II**").

3.2 Prior to the occurrence of Project Milestone-II, the Contractor shall have continued with construction and submitted to the Employer duly and validly prepared Monthly Payment Statements for an amount not less than 30% (thirty per cent) of the Contract Price.

4. Project Milestone-III

4.1 Project Milestone-III shall occur on the date falling on the 684th (Six hundred and Eighty-Four) day from the Appointed Date (the "**Project Milestone-III**").

4.2 Prior to the occurrence of Project Milestone-III, the Contractor shall have continued with construction and submitted to the Employer duly and validly prepared Monthly Payment Statements for an amount not less than 60% (sixty per cent) of the Contract Price.

5. Scheduled Completion Date

5.1 The Scheduled Completion Date shall occur on the 912th (Nine hundred and twelve) day from the Appointed Date.

5.2 On or before the Scheduled Completion Date, the Contractor shall have completed construction (100%) in accordance with this Agreement.

6. Extension of time

Upon extension of any or all of the aforesaid Project Milestones or the Scheduled Completion Date, as the case may be, under and in accordance with the provisions of this Agreement, the Project Completion Schedule shall be deemed to have been amended accordingly.

SCHEDULE - K
(See Clause 12.1.2)
Tests on Completion

1. Schedule for Tests

1.1 The Contractor shall, no later than 30 (thirty) days prior to the likely completion of construction of any works of the structure or part there off, notify the Engineer / Engineer's Representative and the Employer of its intent to subject the works or part there off to Tests, and no later than 10 (ten) days prior to the actual date of Tests, furnish to the Engineer / Engineer's Representative and the Employer detailed inventory and particulars of all works and equipment forming part of Works.

1.2 The Contractor shall notify the Engineer / Engineer's Representative of its readiness to subject the items to tests at any time after 10 (ten) days from the date of such notice, and upon receipt of such notice, the Engineer / Engineer's Representative shall, in consultation with the Contractor, determine the date and time for each Test and notify the same to the Employer who may designate its representative to witness the Tests. The Engineer / Engineer's Representative shall thereupon conduct the Tests itself or cause any of the Tests to be conducted in accordance with Article 12 and this Schedule-K.

2. Tests

2.1 The Engineer / Engineer's Representative shall direct the contractor to conduct a visual and physical check of construction to determine that all works and equipment forming part thereof conform to the provisions of this Agreement. The physical tests shall include the following as required by codes and standards

- Initial Pile Load tests (Vertical and Horizontal)
- Dynamic Load tests
- Pile Integrity Tests
- Concrete Cube Tests
- Tests on aggregates
- Tests on reinforcement
- Tests on cement
- Tests on steel plates
- Tests relevant for fenders, mooring cleats etc.
- All other tests specified elsewhere in the workmanship and materials specification, drawings and scope of works.

All expenses related to the above tests shall form part of the contract price and no additional payment will be made to the contractor.

2.2 Other tests: The Engineer / Engineer's Representative may require the Contractor to carry out or cause to be carried additional tests, in accordance with Good Industry Practice, for determining the compliance of the Project with Specifications and Standards.

2.3 Environmental audit: The Engineer / Engineer's Representative shall carry out a check to determine conformity of the Project with the environmental requirements set forth in Applicable Laws and Applicable Permits.

2.4 Safety Audit: The Engineer / Engineer's Representative shall carry out, or cause to be carried out, a safety audit to determine conformity of the Project with the safety requirements and Good Industry Practice.

3. Agency for conducting Tests

All Tests set forth in this Schedule-K shall be conducted by the Contractor using specialised agency to be approved by Engineer / Engineer's Representative or such other agency or person as it may specify in consultation with the Employer.

4. Completion Certificate

Upon successful completion of All Tests, the Engineer / Engineer's Representative shall issue the Completion Certificate in accordance with the provisions of Article 12.

SCHEDULE - L
(See Clause 12.2 and 12.4)
PROVISIONAL CERTIFICATE

1. I, ... (Name of the Engineer / Engineer's Representative), acting as the Engineer / Engineer's Representative, under and in accordance with the Agreement dated ..... (the **"Agreement"**), for Construction of Marina in Mumbai Harbour (the **"Project"**) on item rate basis through ..... (Name of Contractor), hereby certify that the Tests in accordance with Article 12 of the Agreement have been undertaken to determine compliance of the Project with the provisions of the Agreement.

2. Works that are incomplete on account of Time Extension have been specified in the Punch List appended hereto, and the Contractor has agreed and accepted that it shall complete all such works in the time and manner set forth in the Agreement. In addition, certain minor works are incomplete and these are not likely to cause material inconvenience to the Users of the Project or affect their safety. The Contractor has agreed and accepted that as a condition of this Provisional Certificate, it shall complete such minor works within 30 (thirty) days hereof. These minor works have also been specified in the aforesaid Punch List.

3. In view of the foregoing, I am satisfied that the Project facilities can be safely and reliably placed in service of the Users thereof, and in terms of the Agreement, the Project is hereby provisionally declared fit for entry into operation on this the ..... day of ..... 20.....

ACCEPTED, SIGNED, SEALED	SIGNED, SEALED AND
AND DELIVERED	DELIVERED
For and on behalf of	For and on behalf of
CONTRACTOR by:	Engineer / Engineer's Representative by
(Signature)	(Signature)

COMPLETION CERTIFICATE

1. I, ……. (Name of the Engineer / Engineer's Representative), acting as the Engineer / Engineer's Representative, under and in accordance with the Agreement dated …… (the "**Agreement**"), for Construction of Marina in Mumbai Harbour (the "**Project**") on item rate mode through ……. (Name of Contractor), hereby certify that the Tests in accordance with Article 12 of the Agreement have been successfully undertaken to determine compliance of the Project with the provisions of the Agreement, and I am satisfied that the Project can be safely and reliably placed in service of the Users thereof.
2. It is certified that, in terms of the aforesaid Agreement, all works forming part of Project have been completed, and the Project is hereby declared fit for entry into operation on this the …… day of …… 20…..

SIGNED, SEALED AND DELIVERED
For and on behalf of
the Engineer / Engineer's Representative by:

(Signature)

(Name)

(Designation)

(Address)

SCHEDULE - M
(Article 24)
TERMS OF REFERENCE FOR ENGINEER / ENGINEER'S REPRESENTATIVE

1. Scope

1.1 These Terms of Reference (the "**TOR**") for the Engineer / Engineer's Representative are being specified pursuant to this Agreement dated ..... (the "**Agreement**), which has been entered into between MbPA represented by The Chairman (the "**Employer**") and ..... (the "**Contractor**") for Construction of Marina in Mumbai Harbour through item rate mode, and a copy of which is annexed hereto and marked as Annex-A to form part of this TOR.

1.2 The **TOR** shall apply to Development of Marina in Mumbai Harbour.

2. Definitions and interpretation

2.1 The words and expressions beginning with or in capital letters and not defined herein but defined in the Agreement shall have, unless repugnant to the context, the meaning respectively assigned to them in the Agreement.

2.2 References to Articles, Clauses and Schedules in this TOR shall, except where the context otherwise requires, be deemed to be references to the Articles, Clauses and Schedules of the Agreement, and references to Paragraphs shall be deemed to be references to Paragraphs of this TOR.

2.3 The rules of interpretation stated in Clauses 1.2, 1.3 and 1.4 of the Agreement shall apply, mutatis *mutandis*, to this TOR.

3. General

3.1 The Engineer / Engineer's Representative shall discharge its duties in a fair, impartial and efficient manner, consistent with the highest standards of professional integrity and Good Industry Practice.

3.2 The Engineer / Engineer's Representative shall perform the duties and exercise the Employer in accordance with the provisions of this Agreement, but subject to obtaining prior written approval of the Employer before determining:

(a) any Time Extension;
(b) any additional cost to be paid by the Employer to the Contractor;
(c) the Termination of Payment; or

3.3 The Engineer / Engineer's Representative shall submit regular periodic reports, at least once every month, to the Employer in respect of its duties and functions under this Agreement. Such reports shall be submitted by the Engineer / Engineer's Representative within 10 (ten) days of the beginning of every month.

3.4 The Engineer / Engineer's Representative shall inform the Contractor of any delegation of its duties and responsibilities to its suitably qualified and experienced personnel; provided, however, that it shall not delegate the Employer to refer any matter for the Employer's prior approval in accordance with the provisions of Clause 11.2.

3.5 The Engineer / Engineer's Representative shall aid and advise the Employer on any proposal for Change of Scope under Article 13.

3.6 In the event of any disagreement between the Parties regarding the meaning, scope and nature of Good Industry Practice, as set forth in any provision of the Agreement, the Engineer / Engineer's Representative shall specify such meaning, scope and nature by issuing a reasoned written statement relying on good industry practice and authentic literature.

4. Construction Period

4.1 During the Construction Period, the Engineer / Engineer's Representative shall review the Drawings furnished by the Contractor along with supporting data, including the geo-technical and hydrological investigations, characteristics of materials from borrow areas and quarry sites, topographical surveys, and the recommendations of the Safety Officer in accordance with the provisions of Clause 10.1.5. The Engineer / Engineer's Representative shall complete such review and send its observations to the Employer and the Contractor within 15 (fifteen) days of receipt of such Drawings; provided, however that in case of a major structure, the aforesaid period of 15 (fifteen) days may be extended up to 30 (thirty) days. In particular, such comments shall specify the conformity or otherwise of such Drawings with the Scope of the Project and Specifications and Standards.

4.2 The Engineer / Engineer's Representative shall review any revised Drawings sent to it by the Contractor and furnish its comments within 10 (ten) days of receiving such Drawings.

4.3 The Engineer / Engineer's Representative shall review the Quality Assurance Plan submitted by the Contractor and shall convey its comments to the Contractor within a period of 21 (twenty-one) days stating the modifications, if any, required thereto.

4.4 The Engineer / Engineer's Representative shall complete the review of the methodology proposed to be adopted by the Contractor for executing the Works, and convey its comments to the Contractor within a period of 10 (ten) days from the date of receipt of the proposed methodology from the Contractor.

4.5 The Engineer / Engineer's Representative shall review the monthly progress report furnished by the Contractor and send its comments thereon to the Employer and the Contractor within 7 (seven) days of receipt of such report.

4.6 The Engineer / Engineer's Representative shall inspect the Construction Works and shall submit a monthly Inspection Report bringing out the results of inspections and the remedial action taken by the Contractor in respect of Defects or deficiencies. In particular, the Engineer / Engineer's Representative shall include in its Inspection Report, the compliance of the recommendations made by the Safety Officer.

4.7 The Engineer / Engineer's Representative shall conduct the pre-construction review of manufacturer's test reports and standard samples of manufactured Materials, and such other Materials as the Engineer / Engineer's Representative may require.

4.8 For determining that the Works conform to Specifications and Standards, the Engineer / Engineer's Representative shall require the Contractor to carry out, or cause to be carried out, tests at such time and frequency and in such manner as specified in the Agreement and in accordance with Good Industry Practice for quality assurance.

4.9 The Engineer / Engineer's Representative shall test check at least 20 (twenty) percent of the quantity or number of tests prescribed for each category or type of test for quality control by the Contractor.

4.10 The timing of tests referred to in Paragraph 4.9, and the criteria for acceptance/ rejection of their results shall be determined by the Engineer / Engineer's Representative in accordance with the Quality Control Manuals. The tests shall be undertaken on a random sample basis and shall be in addition to, and independent of, the tests that may be carried out by the Contractor for its own quality assurance in accordance with Good Industry Practice.

4.11 In the event that results of any tests conducted under Clause 11.11 establish any Defects or deficiencies in the Works, the Engineer / Engineer's Representative shall require the Contractor to carry out remedial measures.

4.12 The Engineer / Engineer's Representative may instruct the Contractor to execute any work which is urgently required for the safety of the Project, whether because of an accident, unforeseeable event or otherwise; provided that in case of any work required on account of a Force Majeure Event, the provisions of Clause 17.6 shall apply.

4.13 In the event that the Contractor fails to achieve any of the Project Milestones, the Engineer / Engineer's Representative shall undertake a review of the progress of construction and identify potential delays, if any. If the Engineer / Engineer's Representative shall determine that completion of the Project is not feasible within the time specified in the Agreement, it shall require the Contractor to indicate within 15 (fifteen) days the steps proposed to be taken to expedite progress, and the period within which the Project Completion Date shall be achieved. Upon receipt of a report from the Contractor, the Engineer / Engineer's Representative shall review the same and send its comments to the Employer and the Contractor forthwith.

4.14 The Engineer / Engineer's Representative shall obtain from the Contractor a copy of all the Contractor's quality control records and documents before the Completion Certificate is issued pursuant to Clause 12.4.

4.15 Engineer / Engineer's Representative may recommend to the Employer suspension of the whole or part of the Works if the work threatens the safety of the Users and pedestrians. After the Contractor has carried out remedial measure, the Engineer / Engineer's Representative shall inspect such remedial measures forthwith and make a report to the Employer recommending whether or not the suspension hereunder may be revoked.

4.16 In the event that the Contractor carries out any remedial measures to secure the safety of suspended works and Users, and requires the Engineer / Engineer's Representative to inspect such works, the Engineer / Engineer's Representative shall inspect the suspended works within 3 (three) days of receiving such notice, and make a report to the Employer forthwith, recommending whether or not such suspension may be revoked by the Employer.

4.17 The Engineer / Engineer's Representative shall carry out, or cause to be carried out, all the tests specified in Schedule-K and issue a Completion Certificate or Provisional Certificate, as the case may be. For carrying out its functions under this Paragraph 4.17 and all matters incidental thereto, the Engineer / Engineer's Representative shall act under and in accordance with the provisions of Article 12 and Schedule-K.

5. Coordination with Design Consultant

5.1 The Engineer / Engineer's Representative shall request the Design Consultant for any modification to the structures such as pile foundation required during execution due to ground conditions or any unforeseen circumstances. The Design Consultant may verify and modify if possible.

5.2 The Engineer / Engineer's Representative shall report any deviation to the permanent structures during construction to the notice of the Design Consultant immediately.

5.3 The Engineer's Representative shall coordinate with the contractor for the Vendor data related information and pass on the same thing to the Design Consultant for incorporation in to civil design in a timely manner to avoid construction delay.

5.4 The Engineer's Representative shall obtain clearance from the Design Consultant for items affecting the structural and foundation integrity prior to approving any submission from Contractor.

6. Determination of costs and time

6.1 The Engineer / Engineer's Representative shall determine the costs, and/or their reasonableness, that are required to be determined by it under the Agreement.

6.2 The Engineer / Engineer's Representative shall determine the period of Time Extension that is required to be determined by it under the Agreement.

6.3 The Engineer / Engineer's Representative shall consult each Party in every case of determination in accordance with the provisions of Clause 15.5.

7. Payments

7.1 The Engineer / Engineer's Representative shall withhold payments for the affected works for which the Contractor fails to revise and resubmit the Drawings to the Engineer / Engineer's Representative in accordance with the provisions of Clause 10.2.3 (d).

7.2 Engineer / Engineer's Representative shall - (a) within 10 (ten) days of receipt of the Stage Payment Statement from the Contractor pursuant to Clause 15.3, determine the amount due to the Contractor and recommend the release of 90 (ninety) percent of the amount so determined as part payment, pending issue of the Interim Payment Certificate; and (b) within 15 (fifteen) days of the receipt of the Stage Payment Statement referred to in Clause 15.3, deliver to the Employer and the Contractor an Interim Payment Certificate certifying the amount due and payable to the Contractor, after adjustments in accordance with the provisions of Clause 15.6.

8. Other duties and functions

The Engineer / Engineer's Representative shall perform all other duties and functions as specified in the Agreement.

9. Miscellaneous

9.1 A copy of all communications, comments, instructions, Drawings or Documents sent by the Engineer / Engineer's Representative to the Contractor pursuant to this TOR, and a copy of all the test results with comments of the Engineer / Engineer's Representative thereon, shall be furnished by the Engineer / Engineer's Representative to the Employer forthwith.

9.2 The Engineer / Engineer's Representative shall retain at least one copy each of all Drawings and Documents received by it, including "as-built" Drawings, and keep them in its safe custody.

9.3 Within 90 (ninety) days of the Project Completion Date, the Engineer / Engineer's Representative shall obtain a complete set of as-built Drawings, in 2 (two) hard copies and in micro film form or in such other medium as may be acceptable to the Employer, reflecting the Project as actually designed, engineered and constructed, including an as-built survey illustrating the layout of the Project and setback lines, if any, of the buildings and structures forming part of Project Facilities; and shall hand them over to the Employer against receipt thereof.

9.4 The Engineer / Engineer's Representative, if called upon by the Employer or the Contractor or both, shall mediate and assist the Parties in arriving at an amicable settlement of any Dispute between the Parties.

9.5 The Engineer / Engineer's Representative shall inform the Employer and the Contractor of any event of Contractor's Default within one week of its occurrence.

SCHEDULE - N
(See Clauses 15.2.1, 15.6.1, and 15.8.1)
Forms of Payment Statements

1. Monthly Payment Statement for Works

The Monthly Payment Statement for Works shall state:

(a) the estimated amount for the Works executed in accordance with Clause 15.2.1 subsequent to the last claim;
(b) amounts reflecting adjustments in price for the aforesaid claim;
(c) the estimated amount of each Change of Scope Order executed subsequent to the last claim;
(d) amounts reflecting adjustment in price, if any, for (c) above in accordance with the provisions of Clause 13.2.3 (a);
(e) total of (a), (b), (c) and (d) above;
(f) Deductions:
    i. Any amount to be deducted in accordance with the provisions of the Agreement except taxes;
    ii. Any amount towards deduction of taxes; and
    iii. Total of (i) and (ii) above.
(g) Net claim: (e) – (f) (iii);
(h) The amounts received by the Contractor up to the last claim:
    i. For the Works executed (excluding Change of Scope orders);
    ii. For Change of Scope Orders, and
    iii. Taxes deducted

2. Contractor's claim for Damages

Note: The Contractor shall submit its claims in a form acceptable to the Employer.

SCHEDULE - O
(See Clause 16.1)
INSURANCE

1. Insurance during Construction Period

1.1 The Contractor shall effect and maintain at its own cost, from the Appointed Date till the date of issue of the Completion Certificate, the following insurances for any loss or damage occurring on account of Non Political Event of Force Majeure, malicious act, accidental damage, explosion, fire and terrorism:

(a) insurance of Works, Plant and Materials and an additional sum of 15 (fifteen) per cent of such replacement cost to cover any additional costs of and incidental to the rectification of loss or damage including professional fees and the cost of demolishing and removing any part of the Works and of removing debris of whatsoever nature; and

(b) Insurance for the Contractor's equipment and Documents brought onto the Site by the Contractor, for a sum sufficient to provide for their replacement at the Site.

1.2 The insurance under paragraph 1.1 (a) and (b) above shall cover the Employer and the Contractor against all loss or damage from any cause arising under paragraph 1.1 other than risks which are not insurable at commercial terms.

2. Insurance for Contractor's Defects Liability

The Contractor shall effect and maintain insurance cover for the Works from the date of issue of the Completion Certificate until the end of the Defects Liability Period for any loss or damage for which the Contractor is liable and which arises from a cause occurring prior to the issue of the Completion Certificate. The Contractor shall also maintain other insurances for maximum sums as may be required under the Applicable Laws and in accordance with Good Industry Practice.

3. Insurance against injury to persons and damage to property

3.1 The Contractor shall insure against its liability for any loss, damage, death or bodily injury, or damage to any property (except things insured under Paragraphs 1 and 2 of this Schedule or to any person (except persons insured under Clause 16.9), which may arise out of the Contractor's performance of this Agreement. This insurance shall be for a limit per occurrence of not less than the amount stated below with no limit on the number of occurrences. The insurance cover shall be not less than: Rs. 2 Crores

3.2 The insurance shall be extended to cover liability for all loss and damage to the Employer's property arising out of the Contractor's performance of this Agreement excluding:

(a) the Employer's right to have the construction works executed on, over, under, in or through any land, and to occupy this land for the Works; and

(b) Damage which is an unavoidable result of the Contractor's obligations to execute the Works.

4. Insurance to be in joint names

The insurance under paragraphs 1 to 3 above shall be in the joint names of the Contractor and the Employer.

SCHEDULE - P
SECURITY

1. The CONTRACTOR is bound by the Official Secrets Act 1923 and, in its connection any other statutory Act/ Law/ Amendment in force and the information given is to be treated as strictly confidential and is not to be disclosed to any person or persons not concerned therein. The CONTRACTOR shall be responsible to ensure that all persons employed by him in the execution of any work in connection with this Contract are fully aware of the provisions of the Official Secrets Act 1923/ Law/ Amendment in force and have undertaken to comply with the same.

2. The CONTRACTOR shall also ensure secrecy of design, construction, equipment and documentation and shall carry out all or any instructions given by the ENGINEER / ENGINEER'S REPRESENTATIVE in this respect. Should the ENGINEER / ENGINEER'S REPRESENTATIVE desire to check up the security measures which have been provided, or will be adopted to achieve security, the CONTRACTOR shall produce necessary evidence to establish the same.

3. In giving any information to SUB –CONTRACTORS, the CONTRACTOR shall furnish to the SUB –CONTRACTORS only such information as may be necessary for carrying out the respective work entrusted to them.

4. The security of the equipment, men and material in the CONTRACTOR'S premises is the CONTRACTOR'S responsibility.

5. The security of the equipment, men and material in the ENGINEER / ENGINEER'S REPRESENTATIVE premises is the Customer's responsibility.

(ENGINEER / ENGINEER'S REPRESENTATIVE) **(CONTRACTOR)**

End of the Document