

## Reliance Naval and Engineering Limited

(NOTICE INVITING REQUEST FOR QUOTATIONS)

Sealed Tenders are invited in three covers system (i.e.) Cover-A “Document Fee, Earnest Money Deposit and Integrity Pact”, Cover-B “RFQ application with all enclosures” and Cover- C “Price Bid” by Reliance Naval and Engineering Limited, Mumbai from reputed firms for “Executing a Maintenance Dredging work at Pipavav Channel (Pipavav Shipyard), Gujarat by deploying a combination of Grab / Back Hoe Dredgers and Barges and any other support equipment’s as required by the Contractor”.

1.	Name of Works	:	Request for Quotation for “Executing a Maintenance Dredging with Sea Dumping work at Pipavav Channel (Pipavav Shipyard), Gujarat by deploying a combination of Grab / Backhoe Dredgers and Barges and any other support equipment’s as required by the Contractor”
2.	Period of Contract	:	Approximately 6 Months
3.	Mobilization Period	:	30 days from the date of notification of award
3.	Earnest Money Deposit	:	Rs. 25,00,000/- (Rupees Twenty-Five Lakhs only) by way of Bank Guarantee encashable at Mumbai, India
4	Advertisement of Tenders	:	08.08.2024 @ <a href="http://www.swan.co.in">www.swan.co.in</a> in procurement section
5	Pre-Bid Meeting	:	12.08.2024 @ 1100 hours at office of RNEL, Mumbai
6	Last date of receipt of Final bid	:	14.08.2024 up to 1500 Hrs. RNEL, Mumbai
7	Opening of Techno-Commercial Bids	:	16.08.2024 @ 1500 Hrs. in the Office of RNEL, Mumbai
8	Cost of Tender Documents	:	NIL
9	Address for Submission of Bids and Correspondence	:	RNEL, Vakil’s House, First Floor, Ballard Estate, Fort Mumbai
10	Submission of Bid and other communications from Bidder to Email id	:	Email id: <a href="mailto:hetal.shah@swan.co.in">hetal.shah@swan.co.in</a>

### Technical Specifications for Dredging

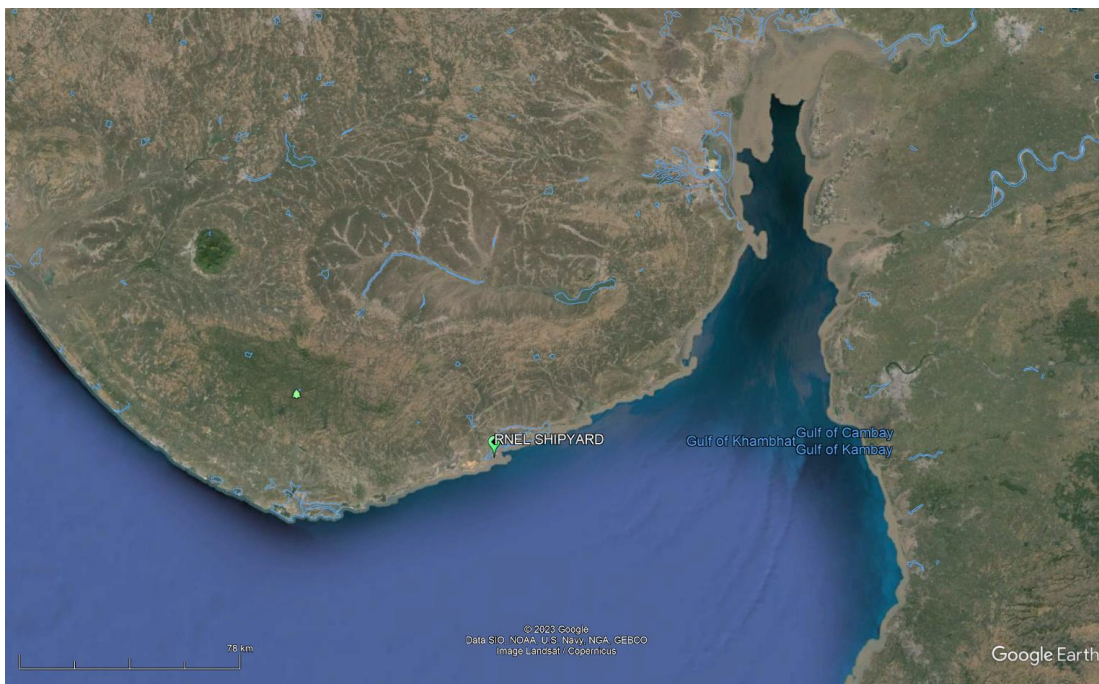
#### a) Background

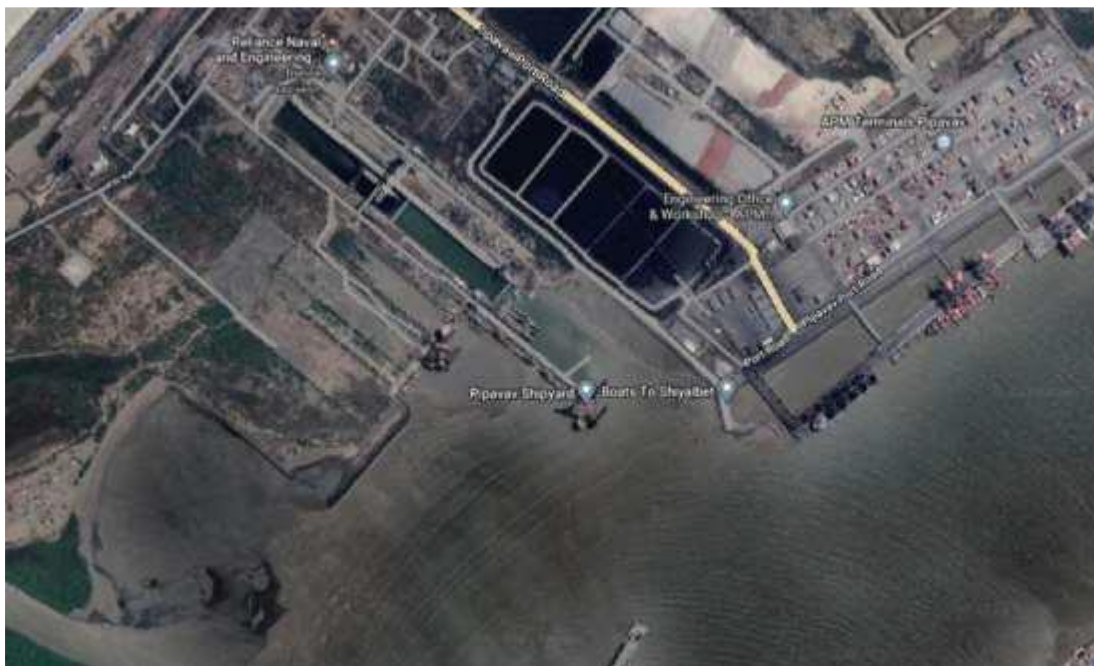
Reliance Naval and Engineering Limited operates India’s largest integrated shipbuilding facility, dry dock that houses the only modular shipbuilding facility with a capacity to build fully fabricated and outfitted blocks. It is the first private sector company in India to obtain the licence and contract to build warships. RNEL is having India’s

largest integrated shipbuilding facility. In order to provide Wet Basin for repairs and ship building activities with requisite water level/ drafts, the proposed dredging activity is planned. Further it is necessary to deepen the present level to operate the Dry Dock Facility which is non-functional during the last couple of years. Present levels being depicted in the hydrographic survey chart wherein the requirements for safe passage and floating of crafts is around 6.5m below Chart Datum (CD). Accordingly, bids are invited from the experienced dredging Contractors. Reliance Naval and Engineering Limited (RNEL) has invited RFQs for deepening the existing basin area in front of the dry docks by dredging works through the competent dredging contractor with suitable dredgers like Grab / Backhoe dredgers with accurate DGPS system and integrated software installed on-board for proper monitoring and self-propelled bottom opening/ split hopper barges installed with DGPS & AIS.

**b) Project Location**

Project location: The site is located adjacent to Pipavav Port, Post- Ucchaiya, via- Rajula, Dist. – Amreli, Sate- Gujrat, PIN-365560. Pipavav is connected by rail and road. The nearest National Highway is NH - 8E, running East – West from Porbandar to Bhavnagar. The dumping location is situated at distance of ~12 kms from the shipyard site. The applicant is expected to familiarize themselves with the site location.





**c) Climatic Condition of Project Area -**

**3.1 Tides:**

**Tidal planes for Pipavav Port area as follows:**

Tide	Level (m CD)
Mean High Water Spring (MHWS)	+3.9
Mean Highest High Water (MHHW)	+3.2
Mean Lowest High Water (MLHW)	+2.4
Mean Sea Level (MSL)	+1.8
Mean Highest Low Water (MHLW)	+1.2
Mean Lowest Low Water (MLLW)	+0.5
Mean Low Water Spring (MLWS)	+0.01

The range at Pipavav port is around 3.5m for a spring tide is modest relative to the higher tidal variations experienced further north in the Gulf of Khambat. These tidal variations generate currents of the order 0.5 to 1 m/s.

Wind - Proposed site near Pipavav Port is subjected to increased winds and persistent south westerly swell waves during the southwest monsoon period (June to August). During the rest of the year, conditions are generally benign. Tropical revolving storms occur infrequently in the northern Indian Ocean, but can cause significantly enhanced local wind speeds, sea state, water level and current velocities at Pipavav.

**3.2 Currents and waves**

Predicted currents in the vicinity of the proposed location are uniform. Nearer to the dock, local coastal features tend to disrupt flows and create eddies and circulation patterns. The existing jetty structures and the island of Shial Bet create disturbances in the broader flow directions, creating localised, complex current patterns that vary over the tidal stages.

**3.3 Rainfall**

The region is affected by the SW monsoon between mid-June and mid-September. The annual rainfall in the area is approximately 500 mm, half of which occurs in the month of July.

**3.4 Temperature**

The average minimum temperature of the area is 11°C and average maximum temperature is 40°C. The mean annual temperature recorded is 26°C to 27°C.

### **3.5 Humidity**

The average relative humidity varies from 65% to 70%.

### **3.6 Visibility**

Visibility is generally good in the area but deteriorates during rains and squalls in the monsoon According to the West Coast of India Pilot, frequency of poor visibility of less than 8 km is around 25% in January and 35% in July.

### **3.7 Bathymetry**

Latest bathymetric survey chart being attached for reference. However, the joint pre-dredge survey chart shall be the basis for the dredging works.

## **4. Scope of Work**

### **1. Contractor's Scope of Works**

#### **a) Mobilization of equipment:**

The Contractor shall be responsible for the supply, use and maintenance of all dredging plants and machineries such as Grab Dredgers/ Backhoe Dredgers, self-propelled split hopper barges/ bottom opening barges, tugboat and other ancillary craft/ vessels and shall ensure that it is suitable for the works and is maintained in such a manner as to ensure its sufficient working. The Employer/Engineer may direct those plants and equipment which is not efficient and is prejudicial to the quality of the works be removed from the site and replaced by a plant and equipment to his satisfaction.

Upon establishment of the site office, the necessary dredgers, barges, craft/ vessels will be promptly mobilized to the Site. The mobilization of the dredger be carried out according to the predetermined milestone, ensuring its berthing in close proximity to the designated work site. Furthermore, survey and all other land-based equipment will be mobilized to the site in accordance with the established schedule

#### **b) Dredging**

Contractor to carry out dredging of 7.5 lakh CuM quantity approximately in the Basin in area B, A1, A2 & A3 as per the drawing attached in Annexure. However, the quantity shall be determined by the joint pre dredging survey conducted by the third-party survey agency engaged by RNEL. However, the final quantity shall be established based on pre-dredge and post-dredge surveys. The employer reserves the right to modify(increase/decrease) the scope and quantity of material to be dredged. Disposal of the dredge material shall be dumped at the designated ground in the offshore location and to ensure uniform distribution of the dredged material across the offshore disposal area provided. in compliance with MOEF and all other statutory approvals.

Design depth of -6.5m CD to be achieved within a period of 6 months' time from the date of Work Order or Letter of Award (LoA) which is earlier. Priority area shall be determined by the EIC and the same shall be communicated with the Contractor. The dredgers are to be fitted with DGPS system with integrated monitoring software for accurate positioning and the barges to be equipped with DGPS & AIS systems. Position of each dumping shall be recorded by way of photographic evidence

### **Eligibility**

- i. The bidder should be a single entity, and consortium/JVs are not eligible to participate.

### **Financial Eligibility**

- i. The bidder should have average of 10 Cr. annual turnover for the last 3 completed financial years.
- ii. The bidder should have minimum net worth of 10 Cr. as on 31 March'24. Documentary evidence to be provided for the same.
- iii. The Contractor should have working capital equivalent to 3 month or 15 Crores. Documentary evidence to be provided for the same.

**c) Contractor's Obligation**

- i. Contractor to start the dredging works from 15 Sep 2024 subject to permissions and prevailing weather conditions. Necessary permissions such as those for barge movements should be applied for and obtained by the Contractor well in advance.
- ii. To make available the dredgers/ barges/ other equipment 24 hrs. every day during the dredging period.
- iii. To carry out dredging in the areas in the Basin determined by the Employer and to dump the material at the designated dumping ground in compliance with MOEF and all other statutory approvals. The dredging will be carried out within given area as per the priority set by the Employer and Employer's representative shall monitor the dredging as per the requirement of the project on priority area basis. However, the final decision will be of the vessel master wrt safety of the vessel considering the tides and weather conditions.
- iv. To demobilise the Plant & machineries on completion of the agreed works or revised work as decided by the employer.
- v. To comply with all statutory including labour related requirements pertaining to the crew, staff of the Contractor engaged on the project shall be on Contractor's cost.
- vi. Contractor shall maintain his dredgers, barges and other craft/ vessels including sufficient spare and other critical spares during the course of the dredging to ensure efficient operating conditions in accordance with the good maintenance practice all the time so as to utilize the equipment for its optimum production at Contractor's cost.
- vii. Contractor shall plan and monitor dredging activities in concurrence with Employer. Free shared accommodation and messing for one Employer's representative to be provided on board vessel.
- viii. The Contractor shall all the time observes and comply with all applicable laws including regulations that are relating to navigation, manoeuvring and anchoring of their floating barges/ craft/ vessels being used throughout the work including policies and all statutory, regulatory and other requirements pertaining to Health, Safety and Security of its personnel, equipment and materials. The dredgers deployed for the works shall have valid insurance cover including as required for manpower and P&I club/ other insurance works for wreck removal & oil pollution liability as per the requirement of the administration.
- ix. Neither the Employer nor the Contractor shall be liable for any loss, damages or delay or failure in performance hereunder resulting from any force majeure event, including but not limited to Acts of God, Fire, action of element, epidemics, war (declared or undeclared), war like actions, insurrections, piracy, differences with workmen except for disputes relating solely to Contractor employees. Affected party shall immediately on occurrence of such a Force Majeure event, inform the other Party of the causes of the Force Majeure event along with the documentary evidence.
- x. To raise bill including all the supporting documents such as closed ITR/ RFI after the interim progress survey.
- xi. Daily Progress Report (DPR) to be submitted by the Contractor indicating the activities of the dredgers, barges estimated quantity dredged for the day, engine log report, effective dredging time, nos of loads dumped in the designated offshore dumping ground against each barge per day, to and from disposal time, disposal location logs and other details deemed necessary to be submitted as required by the Employer/ Engineer or PMC. Copy of all HSE documents along with daily, weekly, monthly report formats to submitted for records.
- xii. Interfacing for right to access with other contractors/ parties of the Employer shall be done by the parties following the date of execution of this agreement and all the coordination with other contractors of Employer shall be done by the Contractor.
- xiii. During dredging operations, Contractor shall ensure that work of the Employer is not obstructed with other contractors work present at Site and all interfaces shall be resolved by the Contractor. However, the dredging works is to be prioritized considering the works to be carried out in offshore location.
- xiv. Contractor shall be liable and solely borne any or all damages to the permanent structures

and properties of Employer and/ or any other third parties arising out of the dredging works carried out by the contractor. Such damages shall be remedied by contractor or solely reimburse the actual cost to remedy from any other contractor.

- xv. The variation in the unit rate specified in the agreement shall not be permissible for whatsoever reasons.
- xvi. Contractor hereby expressly agrees and undertakes to fully indemnify Employer, against any costs, claims, losses, expenses and liabilities and hold Employer harmless against all suits, actions and proceedings and all costs, charges, fees, expenses, fines, penalties, losses, damages, liabilities, claims and demands which Employer may bear, incur or suffer and or which may be made levied or imposed on Employer due to or by reason or virtue of any breach or non-performance of this agreement.
- xvii. The Contractor acknowledges that prior to execution of this agreement and after a complete and careful examination, made an independent evaluation of the scope of the Project along all information provided by the Employer 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 laced by it during the performance of its obligations in terms of the Agreement.
- xviii. The Contractor shall indemnify and hold harmless the Employer against all claims, damages and consequences whatsoever arising out of or in connection with existing works.
- xix. The Contractor shall submit the detailed Method Statement including the schedule of programme consisting of the order in which the Contractor intends to carry out the works and the timing of each stage including mobilisation, dredging & offshore dumping and survey activities. (Annexure V)
- xx. The dredging will be carried out within the given areas as per the priority set by the Employer. Employer's representative/ PMC shall monitor the dredging works as per the requirement of the project on priority area basis.
- xxi. Contractor to submit all the QHSE documents to the Engineer/ PMC for review and approval which includes but not limited to QHSE Policy along with the details of their HSE Team, HSE Plan, Environment Plan, Emergency Response Plan, Traffic Management Plan, Inspection Test Plan/ QA & QC Plan, Oil Spill Contingency Plan, Formats & Inspection Check List, SOPs, etc.
- xxii. Contractor to implement standard QHSE measures and ensure the safe working environment at Site and submit the periodical Toolbox Talk logs to Engineer/ PMC.
- xxiii. Contractor to depute its own HSE office with adequate experience. All the Personal Protective Equipment (PPE) such as safety helmet, safety belt, hand gloves, life jackets, safety shoe, etc. as required/ applicable shall be in the scope of Contractor and shall follow all the QA/ QC procedures while working at Site.
- xxiv. The demobilisations charges shall be paid on completion of the scope of works and completion the demobilisation milestone.

## **5. Employer's Scope of Works**

- a) An interim progress survey for the purpose of billing shall be carried out by the Employer on a fortnightly basis by engaging third party survey agency.
- b) The Employer to secure the Gujarat Maritime Board and Gujarat Pollution Control Board clearance.
- c) The dredging and offshore dumping permissions shall be secured by Employer. In the event of delay in commencement of dredging, Employer shall provide instructions subject to readiness of Contractor, as per agreed work schedule.

### **5.1 Material to be dredged**

Sediments in the bed material in the outer approach channel and lagoon mainly consists of very fine silt and a small percentage of clay and fine sand and its mixtures.

## **5.2 Method of Measurement of Dredging for interim and final payment**

- i. Payment shall be arrived at based on actual quantities dredged, which shall be determined by hydrographic surveys using Single Beam Echo Sounder integrated with motion sensor, DGPS with Hypack software measured and accepted.
- ii. A joint survey shall be carried out before the start and after the Completion of Works and also during the certification of R.A. Bills.
- iii. For the purpose of billing, the quantity dredged will be measured from the level at the commencement of dredging to the final level achieved i.e the design level (-) 6.5m CD.
- iv. The Contractor shall witness the survey carried out by the 3<sup>rd</sup> Party Survey appointed by the Employer.
- v. The Contractor shall jointly carry out the processing of survey data and quantity calculations.

## **5.3 Dredge and Obstructions**

- i. Dredge area clear of natural / artificial under water obstructions - To the best of Employer's knowledge, there exist no major natural or artificial uncharted obstructions in the form of sunken wrecks of ships or plants in the area to be dredged. However, if any small obstructions like sunken buoys, barges or pontoons, small anchors, steel plates, angles, boulders are encountered, these shall be removed by the Contractors at his own cost and no claim on this account will be entertained by the Employer.
- ii. Obstruction which can be removed by Contractor's Equipment - The contractor is not entitled either to an extension of time or and adjustment of Contract Price if such obstruction are removed or can be removed by the Contractor's Equipment or divers. Entanglement of fishing nets or ropes in the propellers shall be considered under this sub-clause and the contractor shall make suitable arrangements for timely inspection and removal of such obstructions. The decision of the Engineer in this regard is final and binding on the Contractor.
- iii. Obstruction which cannot be removed by the Contractor's equipment - If an obstruction is identified during the pre-dredged survey, which cannot be removed by the existing Contractor's Equipment as specified in the bid submission, the Contractor shall arrange to expeditiously remove such obstruction and shall be reimbursed the cost for removal of the obstruction with prior approval of the Engineer/ the Employer. A suitable extension of time for completion to cover the delays incurred shall also be considered by the Engineer. However, no additional cost towards suspension or idling time for the dredgers will be payable. The decision of the Engineer in deciding in the application of the relevant clauses above shall be final and binding.

## **5.4 Insurances and Indemnity**

The contractor shall have all necessary insurances and shall indemnify the Employer and hold harmless.

Following insurances:

1. Insurances for all its marine crafts
2. Workmen policy for all the staff working at site
3. 3<sup>rd</sup> Party insurance

## **5.7 Method Statement**

The Contractor shall provide following minimum method statements prior commencing works:

1. Dredging and Disposal methodology
2. Risk Assessment and Mitigation
3. HSE Statement

The tenderer shall furnish details of technically qualified personnel in their employment to be deployed for the above work, as per the proforma at Annexure I

**Annexure I**

**Format for Financial Information**

Sr.No.	Financial year	Annual Turnover	Net worth	PAT
1	FY'23-24			
2	FY'22-23			
3	FY'21-22			

**Annexure II**

**Format for Details of Equipment**

Description	Make & Year of Manufacture (..... /YY)	Mobilization & Demobilization Charges	Capacity	Production Details
Dredger				
Dredger 1			..... Cu.m/Hr	..... (Fill no of cycle Per hour)
Dredger1			..... Cu.m/Hr	..... (Fill no of cycle Per hour)
Barges (Self-propelled)			..... Cu.m	
A			..... Cu.m	..... (Fill Speed & Avg. No of Trips per day)
B				--- As above---
C				--- As above---
D				--- As above---
E				--- As above---
F				--- As above---
Other Floating Crafts				
Tugs				.....Bollard Pull
Boats				

**Annexure III**

**Details of Key Personnel To be deployed**

Sr.No.	Name	Designation & Responsibility	Qualification	Experience



#### Annexure IV

##### Productivity Details

- Avg. Daily Working Hours for Grab/Backhoe:
- Avg. Daily Working Hours for Barges:
- Monthly Working Days:
- %Fill Factor for Barges:
- Per month Production:
- Time For completion of Project
- (considering 1 million cu.m):

#### Annexure V

##### Method Statement for Dredging