

# **VISAKHAPATNAM PORT AUTHORITY**

## **ENGINEERING DEPARTMENT**

### **(Expression of Interest)**

**No: Civil/SE-III/Dredging**

**Dated:04.08.2022**

**Consultancy Services for Preparation of Detailed Project Report (DPR) for Deepening of the Entrance Channel & Inner Harbour and Strengthening of existing berths in Visakhapatnam Port**

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Visakhapatnam Port Authority intends to invite e-tender for the subject work.

In this regard, VPA invites EOI/budgetary-offer for the subject work on the basis of tentative requirements of services enclosed herewith. The rates quoted must be exclusive of GST. The GST applicable shall be shown separately.

Interested Applicants are requested to submit budgetary quotation at the below address by post/courier on or before **31/08/2022 at 1500 Hrs** or by email at below mentioned email id's.

**The Chief Engineer,  
Civil Engineering Department,  
Administration Office Building,  
3<sup>rd</sup> floor, Port Area, Visakhapatnam Port Authority,  
Visakhapatnam - 530035.**

**Email: 1. cevizagport@gmail.com  
2. ce.avp.vpt@gov.in**

Chief Engineer  
Visakhapatnam Port Authority

## **BRIEF SCOPE OF WORK**

The scope of work for the study to be carried out shall include but not be limited to the following activities/studies. The study duration for preparation of DPR is 6 months.

### **1. General Information of the Project:**

Background information: The existing channel of VPA is having an approximate length of 1.62 km and minimum width of 111.00 m with a dredged depth (-) 16.10m and the existing Inner Harbour Turning Circle (IHTC) is having a diameter of 440m and with a dredged depth of (-) 16.10m. The northern arm is having an approximate length of 2000m and with dredged depth of (-) 16.10m.

In order to facilitate the entry and to operate the higher capacity vessels into inner harbour the entire entrance channel, IHTC and northern arm needs to be widened and dredged from (-) 16.10m to (-) 20.00m and existing berths in the northern arm needs to be strengthened.

### **2. Aim and Objectives of assignment:**

The aim of this assignment is to examine the qualitative and quantitative requirements of improving the approach channels, navigational area and berths to enable the port to handle large size vessels upto 1,20,000 DWT. The study involves review of the existing reports/surveys, as available with the Port, and analysis the reports of traffic and the number and size of vessels likely to call on the port upto the year 2047, examining the requirements of widening and deepening of the channel/inner harbour & berths, study the existing navigational aids and VTMS operating in the harbour and its adequacy or otherwise in the long run requisite augmentations/additions. Navigational aspects have to be studied from point of view of congestion as well as safety primarily keeping in mind that Port has to service. Navigational area has to be studied in its totality including requirements of providing adequate turning circles, anchorages and strengthening of existing berths to handle large size vessels. Cost estimates, implementation schedule, possible investment models, preparation of documents for inviting bids for selection of executing agency shall also form part of this assignment.

### **3. Scope of consultancy services:**

The scope of consultancy services shall include but not necessarily be limited to the following activities:

### **3.1 Preliminary Site Investigation:**

The consultant shall make preliminary site investigation at the project site if necessary. Also, the consultants shall study and refer available soil investigation and other relevant reports/ data available with the Port.

### **3.2 “Detailed Project Report” is required to be finalized in following stages:**

1. Inception report, on the basis review of existing report if any, other available reports, of survey of available documents, inspection of site and preliminary discussions with the Port officials, Govt. officials, present and potential customers, other groups/agencies likely to have interest in this project. The Consultant shall study and explore/ suggest alternative / innovative options to handle larger vessels in Harbour.
2. Evaluation of quantitative and qualitative requirements of vessels likely to call at Port based on Traffic forecast study reports available with the Port.
3. Selections of parameters of design vessel/s for assessing requirement of navigational area i.e. approach channel, turning circle/s, anchorages etc.
4. Study of the existing meteorological and hydraulic regime within the Port Harbour vis-à-vis the navigational characteristics of the design vessel/s to identify the requirements for safe navigation and manoeuvring of the vessels at all times.
5. Review the existing regime of the Port Harbour channel and analyze its suitability for the design vessel/s. Also, analyze vessel handling capacity of the entire channel taking into consideration various sizes of vessels reporting and likely to report in neighboring ports if any, and other such organizations who are using common user channel.
6. Examine and suggest alternative geometric designs of the navigational areas bringing out the requirements of widening and deepening either in one go or in stages for the design vessel/s with and without available tidal windows.
7. Examine the existing navigational aids and VTMS provided in the harbour for optimal utilization and propose augmentations/improvements as necessary for 24-hour movement of design vessel/s through the navigational area.
8. Propose and draw up terms of reference for additional studies for assessing suitability of the proposed design of the navigational area which will be got done by PORT.

9. Examine the suitability and adequacy of existing dredge soil dump grounds located off shore and make recommendations for possible locations for dumping dredged materials.
10. Examine and carry out necessary field studies of the existing berths to strengthen to handle large size vessels.
11. Prepare detailed cost estimates for various alternatives with assessment of dredging quantities for each alternative.
12. Make recommendations for selection of preferred alternative/s.
13. Financial Feasibility and project structuring: The consultant shall work out various options / alternatives structures for carrying out the project including the Port undertaking the project on its own or port having Joint Venture with Public Sector unit or PPP/ formation of Special Purpose Vehicle (SPV) or annuity basis or any other option for the execution of this project.
14. Carry out financial and economic viability studies of the project for the preferred alternative/s. Examine possible investment and cost recovery models and prepare sensitivity analysis.
15. Prepare a realistic implementation schedule for the project.
16. After submission of the final DPR, Consultants would be required to assist port authorities in clarifying the queries of Govt. of India on the DPR.

**4. The scope of work for preparation of DPR shall include (but not limited to) the following activities:**

- a) Review of reports/proposals prepared by the Port in the past.
- b) Consultations with;
  - Port officials of PORT
  - Shipping lines
  - Freight forwarders
  - Chamber of Commerce & Industries etc.
  - Confederations of Industry, Petroleum Industry, Natural Gas, Agriculture, Fertilizers etc.
- c) Site Inspection/Field visits/ Filed Studies /Models & simulation studies.

**5. The documents/reports to be delivered by the consultants shall be as under:**

- a) Inception Report.
- b) Traffic Analysis (forecast): Traffic studies covering traffic forecast (To be assessed from Port master plan 2047).
- c) Vessel size assessment report up to the year 2047, as per the traffic forecast and consultation with stakeholders, shipping lines, freight forwards, chamber of commerce, industries etc.
- d) Report on technical aspects like field data, dredging studies, navigational study etc.
- e) Report on technical aspects of existing berths like structural assessment reports of existing berths for strengthening.
- f) Financial Feasibility and Structuring the project with Financial and economic analysis of proposal/s. Report on possible investment and cost recovery models.
- g) Executive summary covering the above.

**(on the letter head of bidder)**

To,

The Chief Engineer,  
Civil Engineering Department,  
Administration Office Building,  
3<sup>rd</sup> floor, Port Area, Visakhapatnam Port Authority,  
Visakhapatnam - 530035.

Sub: Consultancy Services for Preparation of Detailed Project Report (DPR) for Deepening of the Entrance Channel & Inner Harbour and strengthening of existing berths in Visakhapatnam Port.

| Sl. No. | Description  | Quantity | Unit     | Amount in Rs. |
|---------|--|----------|----------|---------------|
| 1       | Preparation of Detailed Project Report (DPR) for Deepening of the Entrance Channel & Inner Harbour and strengthening of existing berths in Visakhapatnam Port as per the scope work. | 1        | Lump sum |               |

**Note: Rate shall be exclusive of GST**

Seal & Signature of the Consultant

(on the letter head of bidder)

**COMPLETED CAPITAL DREDGING CONSULTANCY WORKS**

| <b>Name of work</b> | <b>Year</b> | <b>Name of Party</b> | <b>Address of Party</b> | <b>Value of Contract</b> |
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Seal & Signature of the consultant