

Name of work: **DESIGN, SUPPLY AND DREDGING USING
JACK UP TYPE SUBMERSIBLE PUMP
DREDGER FOR DEMONSTRATION AND
STUDY IN WAVE BREAKING ZONE, WHERE
SMALL CUTTER SUCTION DREDGER IS
IMPOSSIBLE TO DREDGE**

DEPARTMENT OF OCEAN ENGINEERING -IIT MADRAS

NOTICE INVITING TENDER

(EPC mode)

ITEM RATE CONTRACT

Certified that this NIT contains one item only.

This NIT contains 33 pages

**DESIGN, SUPPLY AND DREDGING USING JACK UP TYPE SUBMERSIBLE PUMP
DREDGER FOR DEMONSTRATION AND STUDY IN WAVE BREAKING ZONE, WHERE
SMALL CUTTER SUCTION DREDGER IS IMPOSSIBLE TO DREDGE**

NOTICE INVITING TENDER

- Tender refence no : OEC/RSUN/001/2018
- Tender for the work of : **DESIGN, SUPPLY AND DREDGING USING
JACK UP TYPE SUBMERSIBLE PUMP
DREDGER FOR DEMONSTRATION AND
STUDY IN WAVE BREAKING ZONE,
WHERE SMALL CUTTER SUCTION
DREDGER IS IMPOSSIBLE TO DREDGE**
- Approximate cost put to Tender : **Rs.4,00, 00, 000/-**
- Earnest Money Deposit : **Rs.8,00, 000/-**
- Date of Tender : **29.11.2018**
- This tender contains : **33pages**
- Time allowed for the work : **03YEARS** including monsoon period
- Clarification to be obtained from : Department of Ocean Engineering
IIT Madras, Chennai - 600 036
Tamil Nadu
Phone no.: 044- 2257 5818 / 5819
- Method of submission of tender : Two cover system
(i) TECHNICAL BID DOCUMENTS
(ii) PRICE BID DOCUMENTS

NOTICE INVITING TENDER for e-Tendering

1. Tenders are invited on behalf of the Principal Investigator from eligible contractors firms for the work of **“DESIGN, SUPPLY AND DREDGING USING JACK UP TYPE SUBMERSIBLE PUMP DREDGER FOR DEMONSTRATION AND STUDY IN WAVE BREAKING ZONE, WHERE SMALL CUTTER SUCTION DREDGER IS IMPOSSIBLE TO DREDGE”** on item rate contract.

1.1 The work is estimated to cost **Rs. 4 00, 00, 000/-**. This estimate, however, is given merely as a rough guide.

1.2 Tender can be downloaded from IITM e-Tender website by the eligible contractors/firms who are having wide experience in the field of dredging using DP pump.

1.3 ELIGIBILITY CRITERIA

The contractor should qualify all the clauses under 1.3 (A), 1.3 (B) and 1.3 (C). Failing to qualify any one of the clauses, the bidders bid shall be directly rejected.

(A) The bidder should have carried out **“Dredging works directly as the Main/Lead contractor in Government Ports or Government undertaking Ports only”**. **“Sub-contracted dredging works and dredging works undertaken by contractor for private firms will not be considered while evaluating the eligibility criteria.”**

(B) The bidder shall possess any one of the following

For the purpose of this clause **“Similar works”** means dredging works as per **Clause 1.3(c) of eligibility criteria, the bidder shall submit the copies of relevant contracts along with documentary evidence in respect of satisfactory execution of each of those contracts.**

(i) **Three similar completed works** costing **not less than 40%** of the estimated cost put to tender

(OR)

(ii) **Two similar completed works** costing **not less than 60%** of the estimated cost put to tender

(OR)

(iii) **One similar completed work** costing **not less than 80%** of the estimated cost put to tender.

(C) The contractor shall have experience in construction of 3 cutter suction dredger of a minimum capacity of 5000cu.m per day for each dredger and should produce definite proof from the appropriate authority for dredging in Floating Mode to the authority in charge during the time of verification, which shall be to the satisfaction of the competent authority of having satisfactorily completed similar works of magnitude

specified below during the last 6 years ending last day of the month previous to the one in which tenders are invited.

2. Agreement form executed by successful tenderer after issuance of offer. Tenderer shall quote his rates as per various terms and conditions and submit to

**Senior Manager Project purchase,
IC&SR building 2nd floor,
IIT Madras,
Chennai 600036, Tamil Nadu.**

3. The time allowed for carrying out the work will be 36 months including monsoon period from the tenth day after the date of written orders to commence the work or from the first date of handing over of the site, whichever is later, in accordance with the phasing, if any, indicated in the tender documents.

4. SCOPE OF WORK

4.1 Design and supply of dredger pump– 6 Months

4.2 Dredging 30000cu.m to create sand trap in Pondichery Fishing Harbour using supplied dredger vide item no. 3.1 – 2 Months

4.3 Dredging 10000cu.m in wave breaking zone in Pondichery port using supplied dredger vide item no. 3.1 – 2 Months

4.4 Non dredging days – 2 Months

4.5 Maintenance – 24 months

5. The site for the work is available.
6. The bidders can download the tenders only through on line from the IITM/IC&SR web site. The bidders shall not approach the Professor for receiving the Tender Schedule. The Tender Schedules cannot be purchased from the office of the Department of Ocean Engineering.
7.
 - i) The cost of tender schedule including 18% GST amount and the earnest money shall be drawn in favour of **The Registrar, IIT Madras.**
 - ii) Interested bidders who wish to participate in the tender must make the following payments in the form of separate Demand Draft of any scheduled Bank.
 - (a) Cost of tender Document including 18% GST - Rs17,700/- drawn in favour of **The Registrar, IIT Madras.**
 - (b) EMD of Rs. 8,00,000/- drawn in favour of **The Registrar, IIT Madras.**

Separate Demand Drafts must be drawn for each of the above fee. Tenders of those bidders not complying with this will be summarily rejected. This set of documents shall form the “COST BID” for the contract.

8. Demand Draft against Cost of Tender schedule and EMD shall be placed in a sealed envelope superscribed as “COST OF TENDER AND EMD” with the name of work and due date of opening of the bid also mentioned thereon and the sealed envelope to be submitted to

Senior Manager Project purchase,

IC&SR building 2nd floor,

IIT Madras,

Chennai 600036, Tamil Nadu.

during the period **20.12.2018 upto 1500hrs.**

Photocopies of GST Registration Number, PAN/TAN card of firm, work experience documents consisting of Work Order, Work Completion certificate, demand drafts of EMD and cost of tender document shall also be enclosed which will comprise the “TECHNICAL BID DOCUMENTS”. PRICE BID documents shall also be submitted along with technical bid documents in a separate cover within the period of tender submission. The originals of these documents must be produced to the authority in charge, DOE IITM for verification at time and date to be intimated after opening of the “ELIGIBILITY BID”.

9. Tender, documents consisting of plans, specifications, the schedule of quantities of the various classes of work to be done and the set of terms and conditions of contract to be complied by the contractor whose tender may be accepted and other necessary documents can be seen in the IITM website from **16.30 Hrs on 29.11.2018 till 15.00 Hrs on 20.12.2018.**

10. The description of the work is as follows:-

- (i) DESIGN, SUPPLY AND FABRICATION of one dredger using submersible dredge pump DP PUMP mounted over the pontoon with Jack up arrangement and dump tow to facilitate shifting by floating. The submersible slurry pump shall be of TOYO/DRAFLOW OR EQUIVALENT brand and manufacture approved by the engineer in charge. Rate inclusive all the cost for entire Dredge system with all prime mover, electrical electronics control system, winches, pontoon, ladder, spud ram etc complete to facilitate operating DP pump. Including cost for rubber hose – 6 Nos, HDPE pipe – 500m, PUF FLOATER suitable for 300Rm.

Equivalent of Toyo DP-150-8 = 1 No(s)

PUMP SPEC

A) Pump-Slurry discharge capacity shall be more than 400 cu.m per hour,

- B) Delivery size 200mm with 25m head, solid passing 120mm.
- C) Power – 90Kw. Weight of pump around 3.8tons.

PONTOON –

- (a) Overall Length -12m
 - (b) Overall Breadth - 10m
 - (c) Depth moulded - 2m
 - (d) 10mX3m pontoon – 2Nos
 - (e) 6mX2.5m pontoon – 4 Nos
 - (f) Plate thickness – 8mm
- (ii) Dredging 30000cu.m to create sand trap in Pondichery Fishing Harbour with disposal of 1.5 KM using the IITM dredger including cost of Fuel, oil and other lubricants, and crew and logistics of crew etc. Dredging to be completed with pontoon in mooring condition in two months: Maximum depth of dredging -9m (Ref Annexure – I for drawing)
- (iii)Dredging 10000cu.m to wave breaking zone of pondichery port with disposal of 1.5 KM using the IITM dredger including cost of Fuel, oil and other lubricants, and crew and logistics of crew etc. Dredging to be completed with pontoon in jack up position in two months in wave breaking zone.
- (iv)Maintenance of dredger for 24 months. Maintenance of dredger supplied, vide item no. 9(i).
- a. 1 year –
 - b. 2 year -
- (v) Transportation by road, assembling and commissioning of dredging equipment from pondicherysite to IITM including transport insurance.
- (vi)On placement of ‘Work Order’, the necessary equipment to be mobilized by the contractor at Pondichery site and commence dredging operation within 6months. The transportation charges from Pondichery site to Yard/Shed or place shall be decided by authority at the time of completion of work, shall be beared by contractor.No Mobilization & De-mobilisation charges will be payable to the contractor separately. Such costs should be included in the fabrication of the dredgers proportionately.

Copies of drawings and documents pertaining to the works can be obtained after the issuance of work order.

Tenderers are advised to inspect and examine the site and its surroundings and satisfy themselves before submitting their tenders as to the nature of the work and nature of the site, i.e., means of access to the site, the accommodation they may require and in general shall themselves obtain all necessary information as to risks, contingencies and other circumstances which may influence or affect their tender. A tenderer shall be deemed to have full knowledge of the site whether he inspects it and no extra charges consequent on any misunderstanding or otherwise shall be allowed. The tenderer shall be responsible for arranging and maintaining at his own cost all materials, tools and plants, water, electricity access, facilities for workers and all other services required for executing the work unless otherwise specifically provided for in the contract documents. **Submission of a tender by a tenderer implies that he has read this notice and all other contract documents and has made himself aware of the scope and specifications of the work to be done and local conditions and other factors having a bearing on the execution of the work.**

11. The competent authority does not bind itself to accept the lowest or any other tender and reserves to itself the authority to reject any or all the tenders received without the assignment of a reason. All tenders, in which any of the prescribed conditions are not fulfilled or any condition including that of conditional rebate is put forth by the tenderer, shall be summarily rejected.
12. Canvassing whether directly or indirectly, in connection with tenders is strictly prohibited and the tenders submitted by the contractors who resort to canvassing will be liable to rejection.
13. The competent authority on behalf of the Principal Investigator reserves to himself the right of accepting the whole or any part of the tender and the tenderer shall be bound to perform the same at the rate quoted.
14. The bidder shall not be permitted to tender for works in the IIT Madras, Chennai (responsible for award and execution of contracts) in which his near relative is posted as Divisional Accountant or as an officer in any capacity, between the cadre of Superintending Engineer and Assistant Engineer (both inclusive). He shall, also intimate the names of persons who are working with him in any capacity or are subsequently employed by him and who are near relatives to any gazetted officer in the IIT Madras. Any breach of this condition by the contractor renders him liable for suitable legal action and the cost the full tender value including EMD will also be recovered by him.
15. No Engineer of gazetted rank or other gazetted officer employed in Engineering or Administrative duties in an Engineering Department of the IIT Madras is allowed to work as a contractor for a period of two years after his retirement from Government service, without the previous permission of the concerned authority, IIT Madras in writing. This contract is liable to

be cancelled if either the contractor or any of his employees is found any time to be such a person who had not obtained the permission of the concerned authority, IIT Madras as aforesaid before submission of the tender or engagement in the contractors' service.

16. The dredger and ancillary items mobilized by the contractor for the purpose of execution of this contract must be suitably insured by the contractor. The cost of insurance charges for the dredger alone shall also be borne by contractor. All persons deployed by the contractor on board the vessels and ashore shall be insured by the contractor at his cost and documentary evidence should be provided before commencement of work to IITM. IITM shall not be responsible in any manner for any accident, injury or death to the personnel engaged by the Contractor during execution of the contract on board or ashore.
17. The tender for the works shall remain open for acceptance for a period of **ninetydays** from the **date of opening of financial bid**. If any tenderer withdraws his tender before the said period or issue of letter of acceptance whichever is earlier or make any modifications in the terms and conditions of the tender which are not acceptable to IIT Madras, then the Government without prejudice to any other right or remedy, be at liberty to forfeit the earnest money deposit.
18. This notice inviting tender shall form a part of the contract document. The successful tenderer / contractor, on acceptance of his tender by the accepting Authority, shall within 10 days from the stipulated date of start of the work sign the contract, consisting of -
 - (a) The notice inviting tender, all the documents including additional conditions, specifications and drawings, if any, is forming the tender as issued at the time of invitation of tender and acceptance thereof together with any correspondence leading thereto.
 - (b) **Standard Form 8 of CPWD.**

Signature of Professor

**DEPARTMENT OF OCEAN ENGINEERING
INDIAN INSTITUTE OF TECHNOLOGY MADRAS**

STATE : PONDICHERY& TAMILNADU
DEPT : Department of Ocean Engineering, IIT MADRAS
REGION : PONDICHERY& TAMILNADU
DIVISION : Department of Ocean Engineering, IIT MADRAS

ITEM RATE TENDER AND CONTRACT FOR WORKS

(A)Tender for the work of **DESIGN, SUPPLY AND DREDGING USING JACK UP TYPE SUBMERSIBLE PUMP DREDGER FOR DEMONSTRATION AND STUDY IN WAVE BREAKING ZONE, WHERE SMALL CUTTER SUCTION DREDGER IS IMPOSSIBLE TO DREDGE**

(i) To be downloaded in online at 16:30Hrs on 29-11-2018 through

CPPP Portal Address: <https://eprocure.gov.in/epublish/app>

Institute tender site: <http://tenders.iitm.ac.in/?q=open-tenders>

- (ii) Availability of NIT for downloading : 29.11.2018 from 16:30Hrs
- (iii) Date of prebid meeting : 05.12.2018 at 12.00 Hrs.
- (iv) Closing time for submission of bids : 20.12.2018 at 15:00Hrs.
- (v) Period during which "COST OF TENDER & EMD" : 20.12.2018 at 15:00 Hrs.

Cover to be physically placed in the tender box
at the office of **Senior Manager Project purchase** , ICSR building second floor ,IIT Madras, Chennai
600036, Tamil Nadu.

- (vi) Date of opening of "COST OF TENDER & EMD" Cover : 21.12.2018.
- (vii) Date of opening of "Financial Bid" : 28.12.2018 at 15:00 Hrs.

**DEPARTMENT OF OCEAN ENGINEERING
INDIAN INSTITUTE OF TECHNOLOGY MADRAS**

TENDER

I/We have read and examined the notice inviting tender, Schedules A,B,C,D,E and F. Specifications applicable, drawings and designs, general rules and directions, conditions of contract, clauses of contract, special conditions, schedule of rates and other documents and rules referred to in the conditions of contract and all other contents in the tender document for the work.

I/We hereby tender for the execution of the work specified for the Principal Investigator within the time specified in Schedule 'F', viz., schedule of quantities and in accordance in all respects with the specifications, designs, drawings, and instructions in writing referred to in Rule – 1 General Rules and Directions and in Clause 11 of the Clauses of Contract and with such materials as are provided for, by, and in respects in accordance with, such conditions so far as applicable.

We agree to keep the tender open for **Ninety (90) days** from the **date of opening of financial bid** thereof and not make any modifications in its terms and conditions.

If I/We fail to furnish the prescribed **Performance Guarantee**, a sum of Rs.8,00,000/- is hereby forwarded in Demand Draft of a scheduled bank as earnest money deposit. I/We agree that the authority in charge, DOE, IITM or his successors in the office shall without prejudice to any other right or remedy, be at liberty to forfeit the said earnest money absolutely otherwise the said earnest money shall be retained by him towards security deposit to execute all the works referred to in the tender documents upon the terms and conditions contained or referred to therein and to carry out such deviations as may be ordered, up to maximum of the percentage mentioned in Scheduled in Schedule 'F' and those in excess of that limit at the rates to be determined in accordance with the provision contained in Clauses 12.2 and 12.3 of the tender form.

I/We hereby declare that I/We shall treat the tender documents, drawings and other records connected with the work as secret/confidential documents and shall not communicate information/ derived there to any person other than a person to whom I/We am/are authorized to communicate the same or use the information in any manner prejudicial to the safety of the State.

I/We agree that should I/We fail to commence that work specified in the above memorandum, and amount equal to the amount of the earnest money mentioned in the form of invitation of tender and the performance guarantee shall be absolutely forfeited to the Principal Investigator or his successors in office and the same may at the option of competent

authority be recovered without prejudice to any other right or remedy available in law out of the deposit in so far as the same may extend in terms of the said bond and in the event of deficiency out of any other money due to me/us under this contract or otherwise.

Dated.....

Postal address: Signature of Contractor

Witness:

Address:

Occupation:

ACCEPTANCE

The above tender (as modified by you as provided in the letters mentioned hereunder) is accepted by me for and on behalf of the Principal Investigator for a sum of Rs...../- (Rupees.....)

. The letters referred to below shall form part of this contract agreement:-

(a)

(b)

(c)

For and on behalf of Principal Investigator

Signature.....

Dated.....

Designation.....

**IIT MADRAS
DEPARTMENT OF OCEAN ENGINEERING**

GENERAL RULES AND DIRECTIONS

1. All works proposed for execution by contract will be notified in a form of invitation to tender pasted in public places and signed by the officer inviting tender or by publication in newspapers and in the e-Tender website as the case may be.

This form will state the work to be carried out, as well as the date for submitting and opening tenders and the time allowed for carrying out the work, also the amount of earnest money to be deposited with the tender and the amount of the security deposit to be deposited by the successful tenderer and the percentage, if any, to be deducted from the bills. Copies of the specification, designs and drawings and any other documents required in connection with the work signed for the purpose of identification by the officer inviting tender shall also be open for inspection by the contractor at the office of officer inviting tender during office hours.

2. In the event of the tender being submitted by a firm, it must be signed separately by each partner thereof or, in the event of the absence of any partner, it must be signed on his behalf by a person holding a power-of-attorney authorizing him to do so, such power - of-attorney to be produced with the tender, and it must disclose that the firm is duly registered under the Indian Partnership Act, 1952.
3. Receipts for payment made on account of work, when executed by a firm, must also be signed by all the partners, except where the contractors are described in their tender as a firm, in which case the receipts must be signed in the name of the firm by one of the partners, or by some other person having authority to give effectual receipts for the firm.
4. Any person who submits a tender shall fill up in the form, stating at what rate he is willing to undertake each item of the work. Tenders, which propose any alteration in the work specified in the said form of invitation to tender, or in the time allowed for carrying out the work, or which contain any other conditions of any sort, will be liable to rejection. Tenders shall have the name and number of the work to which they offer.

The rate(s) must be quoted in decimal coinage.

5. The officer inviting tender or of his duly authorized Assistant will open tenders in the following manner

The cover superscribed “COST OF TENDER & EMD”, placed physically in the tender box along with the eligibility bid, shall be opened first at the Office of the Department of Ocean Engineering IIT Madras on due date and time mentioned above. The tenders of those bidders

whose Earnest Money deposit and cost of tender are not found in order will be summarily rejected.

The tender documents submitted by the intending bidders shall be opened only of those bidders whose Earnest Money Deposit, cost of Tender schedule are found in order. The opening shall be done in the following manner.

- (i) The “Cost bid” submitted by the intending bidder shall be opened first only of those bidders whose physical cover containing the Demand Drafts of fee was found in order.
 - (ii) The “Eligibility bid” submitted along with the cost bid by the intending bidders shall be opened next only of those bidders whose “cost bid” was found in order and has been accepted by the authority, Department of Ocean Engineering IIT Madras. The originals of the “ELIGIBILITY DOCUMENTS” shall be verified by the authority, Department of Ocean Engineering IIT Madras, at the time and date to be communicated to the bidder. Upon receipt of the communication, the bidder must produce the originals to the duly concerned authority or his representative of Department of Ocean Engineering IIT Madras at the mentioned date and time. Failure to produce the originals for verification by any bidder will make the bidder ineligible for participation in the financial bid and thereafter the eligibility bid stands rejected. No request for postponement of verification date and time will be entertained by the concerned authority, Department of Ocean Engineering IIT Madras.
 - (iii) The “Financial bid” submitted by the intending bidders shall be opened next at the communicated date and time only of those bidders whose
 - (A) Eligibility documents submitted at Department of Ocean Engineering meet the eligibility criteria stipulated for the tender and
 - (B) The originals of the Eligibility document have been physically verified by the concerned authority, Department of Ocean Engineering IIT Madras.
 - (C) A mail or telephonic communication will be sent to the successful tenderers whose technical / Eligibility bid is in order and accepted before opening the financial bid.
6. The officer inviting tenders shall have the right of rejecting all or any of the tenders and will not be bound to accept the lowest or any other tender.

7. The dredger and ancillary items mobilized by the contractor for the purpose of execution of this contract must be suitably insured by the contractor. The cost of insurance charges for the dredger also shall be borne by contractor. All persons deployed by the contractor on board the vessels and ashore shall be insured by the contractor at his cost and documentary evidence should be provided before commencement of work. IITM shall not be responsible in any manner for any accident, injury or death to the personnel engaged by the Contractor during execution of the contract on board or ashore.
8. On placement of 'Work Order', the dredger is to be mobilized at Pondichery site and commence dredging operation within 6 months. No Mobilization & De-mobilisation charges will be payable to the contractor separately. Such costs should be included in the fabrication of the dredgers proportionately.
9. The tenderers shall sign a declaration under the Official Secrets Act, 1923 for maintaining secrecy of the tender documents, drawings or other records connected with the work given to them. The unsuccessful tenderers shall return all the drawings given to them.
10. In the case of item rate tenders which are called through this Tender, only rates quoted in figures shall be considered. Rates quoted by the contractor in item rate tender in figures shall be accurately filled in so that there is no discrepancy in the rates written in figures.
11. In the case of any tender where unit rate of any item/items appear unrealistic, such tender will be considered as unbalanced and in case the tender is unable to provide satisfactory explanation such a tender is liable to be disqualified and rejected.
- 12. All rates shall be quoted on the tender form in the space provided. Hard copy quotes should be submitted to the department.**
13. The contractor shall be required to deposit an amount equal to 5% of the tendered value of the work as performance guarantee in the form of an irrevocable Bank Guarantee bond of any Nationalized bank, Branches of India in accordance with the form prescribed, as in the case of recovery of security deposit within 15 days of the issue of letter of intent but before award of work. This period can be further extended by the concerned authority, Department of Ocean Engineering IIT Madras up to a maximum period of 7 days on written request of the contractor.
- 13A. A sum @ 10% of the gross amount of the bill shall be deducted from each running bill of the contractor till the sum along with sum already deposited as earnest money will amount to security deposit of 5% of the tendered value of the work (bank Guarantee is not to be accepted as security deposit).

- 13B. Concerned authority of Department of Ocean Engineering IIT Madras of the department on evaluation of tender and if the tender is found that the overall amount quoted is less than 15%, then the contractor shall be asked to pay an additional performance guarantee amounting to 50% of the difference between the quoted amount and estimate cost put to tender. Failure to furnish the additional performance guarantee over and above the normal performance guarantee of 5% within 15 days from the date of receipt of acceptance letter, shall entitle cancellation of award and forfeiture of EMD furnished. The contractor shall also furnish an undertaking to the effect that the contractor agrees to pay the additional performance guarantee of specified amount and in case if the contractor is not able to complete the work within the period of completion as mentioned in the agreement, the contractor is agreeable to the forfeiture of the entire performance guarantee paid by the contractor.
- 13C. **The performance guarantee shall be initially valid up to the stipulated date of completion plus 60 days beyond that.** In case the time for completion of work gets enlarged, the contractor shall get the validity of performance guarantee extended to cover such enlarged time for completion of work. After recording of the completion certificate for the work by the competent authority, the performance guarantee shall be returned to the contractor, without any interest.
14. On acceptance of the tender, the name of the accredited representative(s) of the contractor who would be responsible for taking instructions from the concerned authority, Department of Ocean Engineering IIT Madras and shall be communicated in writing to the concerned authority, Department of Ocean Engineering IIT Madras.
15. GST, Purchase tax, Turnover tax or any other tax on material in respect of this contract shall be payable by the contractor and Department of Ocean Engineering IIT Madras will not entertain any claim whatsoever in respect of the same.
16. The payment schedule for the contractor will be as follows :-
- i. **DESIGN AND SUPPLY of one dredger using submersible dredge pump vide item 1 of Schedule A**
 - (a) For submission of design of submersible DP pump – 5% cost of item 1 of Schedule “A”
 - (b) After construction of pontoon – 20% cost of item 1 of Schedule “A”.
 - (c) After supply of pump - 1 No(s) – 20% cost of item 1 of Schedule “A”.

- (d) After completion of spud pipes – 20% cost of item 1 of Schedule “A”.
- (e) After completion of entire dredge system – 15% cost of item 1 of Schedule “A”
- (f) The final payment will be given after satisfactory performance of entire dredging system for 5 days or as directed by the engineer-in-charge at site – 20% cost of item 1 of Schedule “A”.

17. The contractor should provide the list of spars provided along with the supply of Dredger.
18. The contractor shall give a list of both Gazetted and Non-Gazetted IIT Madras employees related to him.
19. The tender for the work shall not be witnessed by a contractor or contractors who himself/themselves has/have tendered or who; may and has/have tendered for the same work. Failure to observe this condition would render, tenders of the contractors tendering, as well as witnessing the tender, liable to be summarily rejected.
20. The contractor shall submit list of works, which are in hand (progress) in the following form:

Name of Work	Name and particulars of Division where is being executed	Value of work	Position of works in progress	Remarks
(1)	(2)	(3)	(4)	(5)

21. The contractor shall comply with the provisions of the Apprentices Act, 1961, and the rules and orders issued there under from time to time. If he fails to do so, his failure will be breach of the contract and concerned authority, Department of Ocean Engineering IIT Madras may in his discretion without prejudice to any other right or remedy available in law cancel the contract. The contractor shall also be liable for any pecuniary liability arising on account of any violation by him of the provisions of the said Act.
22. “Inviting the guidelines prescribed by the central Vigilance commission, no Post-tender negotiations shall be conducted with the tenderers. The tenderers are expected to quote their rate within the permissible limit of Variation”.

SCHEDULES

SCHEDULE 'A'-SCHEDULE OF QUANTITIES

NAME OF WORK:“*DESIGN, SUPPLY AND DREDGING USING JACK UP TYPE SUBMERSIBLE PUMP DREDGER FOR DEMONSTRATION AND STUDY IN WAVE BREAKING ZONE, WHERE SMALL CUTTER SUCTION DREDGER IS IMPOSSIBLE TO DREDGE*”

Item No.	Description of Items	Qty	Unit	Rate in Fig(Rs)	Rate in words	Amount (Rs)
1.	<p>DESIGN AND SUPPLY of one dredger using submersible dredge pump DP PUMP mounted over the pontoon with Jack up arrangement and dump tow to facilitate shifting by floating. The Submersible slurry pump shall be of TOYO/DRAFLOW OR EQUIVALENT brand and manufacture approved by the engineer incharge. rate inclusive all the cost for entire Dredge system with all prime mover, electrical electronics control system, winches, pontoon, ladder , spud ram etc complete to facilitate operating DP pump including cost for rubber hose – 6 Nos , HDPE pipe – 500m, PUF FLOATER suitable for 300Rm.</p> <p>Equivalent of Toyo DP-150-8 = 2 Nos (1Nos - stand by)</p> <p>PUMP SPEC</p> <p>(A) Pump-Slurry discharge capacity shall be more than 400 cu.m per hour,</p> <p>(B) Delivery size 200mm with</p>	1	No			

	<p>25m head, solid passing 120mm.</p> <p>(C) Power – 90Kw. Weight of pump around 3.8tons.</p> <p>PONTOON – Overall Length -12m Overall Breadth - 10m Depth moulded - 2m 10mX3m pontoon – 2Nos 6mX2.5m pontoon – 4 Nos Plate thickness –8mm</p>					
2.	Dredging to create sand trap in Pondichery Fishing Harbour with disposal of 1.5 KM using the IITM dredger including cost of Fuel, oil and other lubricants. Maximum depth of dredging -9m.	30000	Cu.m			
3.	Dredging to wave breaking zone at pondichery with disposal of 1.5 KM using the IITM dredger including cost of Fuel, oil and other lubricants.	10000	Cu.m			
4.	<p>Maintenance and operation of Dredger including cost of Fuel, Crew, logistics of crew, oil and other lubricants.</p> <p>(A) First 1 year -</p> <p>(B) Second 1 year -</p>	<p>20000</p> <p>20000</p>	<p>Cu.m</p> <p>Cu.m</p>			

5.	Transportation by road, assembling and commissioning of dredging equipment from pondichery site to IITM yard/shed including transport insurance.	1	Nos			
6.	Goods Sales Tax (GST) 18%					

The notice inviting tender is approved for one item only for an amount of **Rs.....** /- (**Rupees --- -----**
----- only.)

**DEPARTMENT OF OCEAN ENGINEERING
INDIAN INSTITUTE OF TECHNOLOGY MADRAS**

SCHEDULE 'F'

Reference to General conditions of contract.

Tender reference no : OEC/RSUN/001/2018

Name of work : *DESIGN, SUPPLY AND DREDGING USING JACK UP TYPE SUBMERSIBLE PUMP DREDGER FOR DEMONSTRATION AND STUDY IN WAVE BREAKING ZONE, WHERE SMALL CUTTER SUCTION DREDGER IS IMPOSSIBLE TO DREDGE*

Estimated Cost of Work : Rs. 4,00,00,000/-

Earnest Money : Rs. 8,00,000/-

Performance Guarantee : 5% of the tendered value

Security Deposit : 5% of the tendered value

Additional Performance

Guarantee (in case of tender

Which is more than 15%

below) : 50% of the difference in cost between the quoted amount and Estimate cost put to tender

MODIFIED CLAUSES AS PER CON / MAN CIRCULARS

Clause 1	(i)	Time allowed for submission of Performance Guarantee from the date of issue of letter of acceptance, in days	15 days
	(ii)	Maximum allowable extension beyond the period as provided in (i) above in days.	7 days

The contractor whose tender is accepted, will be required to furnish performance guarantee of 5% (five percent) of the tendered amount within the period specified in Schedule F. This guarantee shall be in the form of cash (in case guarantee amount is less than ₹10,00,000/-) or Deposit at call receipt of any scheduled bank/Banker's Cheque of any scheduled bank/Demand Draft of any scheduled bank/Pay order of any scheduled bank (in case guarantee amount is less than ₹1,00,000/-) or Govt. Securities or Fixed Deposit Receipts or Guarantee Bonds of any Scheduled Bank or the State Bank of India in accordance with the prescribed form.

In case the contractor fails to deposit the said performance guarantee within the period as indicated in Schedule 'F' including the extended period if any, the Earnest Money deposited by the contractor shall be forfeited automatically without any notice to the contractor.

Concerned authority of Department of Ocean Engineering IIT Madras is *hereby instructed that on evaluation of tender if it is found that if the over all amount of quoted tender is less than 15%, the contractor shall pay an additional performance guarantee amounting to 50% of the difference between the quoted amount and estimate cost put to tender. Failure to furnish the additional performance guarantee over and above the normal performance guarantee of 5% within 15 days from the date of receipt of acceptance letter, shall entitle cancellation of award and forfeiture of EMD furnished. The contractor shall also furnish an undertaking to the effect that he agrees to pay the additional performance guarantee of specified amount and in case if he is not able to complete the work within the period of completion as mentioned in the agreement he is agreeable to*

<i>the forfeiture of entire performance guarantee paid by him.</i>		
Clause 1A	Recovery of Security Deposit as amended	
Clause 2	Authority for fixing compensation under Clause 2	Concerned authority Department of Ocean Engineering IIT Madras.
Clause 2A	Whether Clause 2A shall be applicable	No
Clause 3	Modified	
Clause 3A	Modified	
Clause 3B	Deleted	
Clause 5		
Para (i)	Time allowed for execution of work(..... 36 MONTHS) including monsoon period
Para (ii)	Authority to give fair and reasonable extension of time for completion of work	Concerned authority, Department of Ocean Engineering IIT Madras.

MILESTONE

Sl. No.	Description of Milestone (Physical)	Time allowed in days (from date of start)	Amount to be withheld in case of non-achievement of milestone
1.	Supply and installation at site	6 Months	In the event of not achieving the necessary progress as assessed from the running payments 1% of the tendered value of work will be withheld for failure of each milestone.
2.	Dredging work carried out at first site	From 6 to 8 months	
3.	Dredging work carried out at second site	From 8 to 12 months	
4.	Operation and Maintenance work	From start of 2 nd year till end of 3 rd year	

Clause 7	Deleted	
Clause 10B (ii)	Deleted	
Clause 10B (iii)	Deleted	
Clause 10C	As amended	
Clause 10CA	Not applicable	
Clause 10CC	Not applicable	
Clause 11	Deleted	
Clause 12	Clause 12.1.2 deleted and renumbered as 12.1	
12.2 & 12.3	Deviation limit beyond which Clauses 12.2 & 12.3 shall apply	10%
12.5	Deleted	
Clause 16	Deleted	
Clause 17	Deleted	
Clause 21	Subletting the work - not permitted	
Clause 36	Modified Clause 36 as per No.DGW/CON/203 dt 6.1.05 is applicable.	

“Requirement of Technical Representative (s) and Recovery Rate”

Sl.No.	Minimum Qualification of Technical Representative	Discipline	Designation (Principal Technical/ Technical Representative)	Minimum Experience	Number	Rate at which recovery shall be made from the contractor in the event of not fulfilling provision of Clause 36(i)	
						Figures	Words
1.	Project Manager with Graduate in Civil/Marine Engineering	Civil/ Marine	Principal Technical Representative	10 years	1	Rs.20,000/- - p.m.	(Rupees Twenty thousand only)
2.	Graduate Engineer	Civil/ Marine	Technical Representative	5 years	1	Rs. 15,000/- p.m.	(Rupees fifteen thousand only)

Assistant Engineers retired from Government services who are holding Diploma will be treated at par with Graduate Engineers.

GENERAL CONDITIONS OF CONTRACT

- (1) The work shall in general be carried out in accordance with CPWD specifications for works 2002 with correction slips and issued from time to time.
- (2) However if the said specifications differ from those given in the description of any particular item in the schedule of quantities and specifications stipulated herein, the latter shall prevail.
- (3) If the detailed description of any particular item in the schedule of quantities and specifications finally accepted by the department differs from the particular specifications given hereunder, the former shall prevail to the extent applicable.
- (4) If the particular specification given hereunder differs from I.S. code provisions, in any respect, the former shall prevail.
- (5) Wherever any reference to any Indian standard specification occurs in the documents relating to this contract the same should be inclusive of all amendments issued thereto or revision thereof if any, upto the date of receipt of tenders.
- (6) Conditions involving any financial implications other than those covered in the schedule of quantities will not be entertained and such tenders are also liable to be rejected.
- (7) When working near existing structures, care shall be taken to avoid any damage to such structures, any such damage caused intentionally or unintentionally shall be restored to original and or acceptable condition and to the satisfaction of the Engineer-in-charge.
- (8) The contractor shall give to the Municipality, Police and other authorities all notices etc., that may be required to be given as per law and obtain all requisite licenses for temporary obstructions, enclosures and pay all fees, taxes and charges which may be leviable on account of the operations during the execution of the contract. No extra claim of the contractor will be entertained by the department on this account.
- (9) Other agencies doing works related to this project may also simultaneously execute the works and the contractor shall co-ordinate and co-operate with them as found to be necessary at no extra cost.
- (10) Deleted
- (11) Unless otherwise specified in the schedule of quantities the rate for all items of the work shall be considered as inclusive of pumping out or bailing out water if required for which no extra payment will be made. This will include water encountered from any source as rains, flood, and subsoil water table being high due to any other cause whatsoever.

ADDITIONAL CONDITIONS

- 1) The rate for all items of works shall unless clearly specified otherwise include cost of all labour, materials and others inputs involved in the execution of item.
- 2) (a) Tendered rates are inclusive of all taxes and levies payable under the respective status. However pursuant to the constitution (46th Amendment) Act 1982, if any further tax or levy is imposed by the statute after the date of receipt of tenders and the contractor thereupon necessarily and properly pays such taxes/levies, the contractors shall be reimbursed the amount so paid provided such payment, if, any, is not, in the opinion of the concerned authority, Department of Ocean Engineering IIT Madras (whose decision shall be final and binding) attributable to delay in execution of work within the control of the contractor.

(b) The contractor shall keep necessary books of accounts and other documents for the purpose of this condition as may be necessary and shall allow inspection of the same by a duly authorized representative of concerned authority, Department of Ocean Engineering IIT Madras and further shall furnish such other information/document as the representative may require.

(c) The contractor shall within a period of 30 days of imposition of any further tax or levy pursuant to the Constitution (46th Amendment) Act, 1982 give a written notice thereof to the Engineer-in-Charge pursuant to this condition, together with all necessary information relating therein.
- 3) While execution of the work, the contractor shall organise his work in such a way that the normal functioning of the premises is not disturbed.
- 4) Any damage done to the existing structure while dismantling execution of the work shall be made good by the contractor at claim shall be made good by the contractor at his own cost and no extra claim shall be entertained on this account.

FORM OF PERFORMANCE SECURITY / EMD

BANK GUARANTEE BOND

In consideration of the Principal Investigator (hereinafter called "The Government ") having offered to accept the terms and conditions of the proposed Agreement betweenand..... (hereinafter called "The said contractor(s)"for the work (hereinafter called "the said agreement") having agreed to production of a irrevocable bank Guarantee for □ (Rupeesonly) as a security/guarantee from the contractor(s) for compliance of his obligations in accordance with the terms and conditions in the said agreement. We (Hereinafter referred to as "the Bank") (Indicate the name of the Bank) hereby undertake to pay to the Government an amount not exceeding □. (Rupees..... only) on demand by the Government.

2. We (indicate the name of the bank) do hereby undertake to pay the amounts due and payable under this guarantee without any demure, merely on a demand from the Government stating that the amount claimed is required to meet the recoveries due or likely to be due from the said contractor(s). Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this Guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding □..... (Rupees only).

3. We, the said bank further undertake to pay to the Government any money so demanded notwithstanding any dispute or disputes raised by the contractor(s) in any suit or proceeding pending before any court or Tribunal relating thereto, our liability under this present being absolute and unequivocal. The payments so made by us under this bond shall be a valid discharge of our liability for payment there under and the contractor(s) shall have no claim against us for making such payment.

4. We (indicate the name of the bank) further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said agreement and that it shall continue to be enforceable till all the dues of the Government under or by virtue of the said Agreement have been fully paid and its claims satisfied or discharged or till the Engineer-in-charge on behalf of the Government certified that the terms and conditions of the said agreement have been fully and properly carried out by the said contractor(s) and accordingly discharges this guarantee.

5. We..... (Indicate the name of the bank) further agree with Government that the Government shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said agreement or to extend time of performance by the said contractor(s) from time to time or to postpone for any time or from time to time, any of the powers exercisable by the Government against the said contractor(s) and to for-bear or enforce any of the terms and conditions relating to the said agreement and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said contractor(s) or for any bearance, act of omission on the part of the Government or any indulgence by the Government to the said contractor(s) or by any such matter or thing whatsoever which under the law relating to sureties would but for this provision, have affect of so relieving us.

6. This guarantee will not be discharged due to the change in the constitution of the Bank or the Contractor(s).

7. We (Indicate the name of the bank) lastly undertake not to revoke this guarantee except with the previous consent of the Government in writing.

8. This guarantee shall be valid up tounless extended on demand by the Government. Notwithstanding anything mentioned above, our liability against this guarantee is restricted to ₹.....(Rupees.....only) and unless a claim in writing is lodged with us within six months of the date of expiry or the extended date of expiry of this guarantee all our liabilities under this guarantee shall stand discharged.

Datedtheday offor
(Indicate the name of the Bank)

SPECIAL CONDITIONS - DREDGING CONTRACT SPECIFIC TERMS AND CONDITIONS

1. The tender has to be submitted in the **Senior Manager Project Purchase, IC&SR Building, second floor ,IIT Madras, Chennai 600036, Tamil Nadu** by the eligible contractors/firms who are having wide experience in the field of Dredging.
2. Tender can be downloaded from IITM e-Tender website by the eligible contractors/firms who are having wide experience in the field of dredging using DP pump. **The contractor shall have experience in construction of 4 cutter suction dredger and should produce definite proof from the appropriate authority for dredging in Floating Mode to the concerned authority during the time of verification**, which shall be to the satisfaction of the competent authority of having satisfactorily completed similar works of magnitude specified below during the last 6 years ending last day of the month previous to the one in which tenders are invited.

For the purpose of this clause “Similar works” means the works of **“Dredging works directly undertaken by the contractor in Government Ports and Government undertakings only”**. **“Sub-contracted dredging works and dredging works undertaken by contractor for private firms will not be considered while evaluating the eligibility criteria.”**

Three similar completed works costing not less than 40% of the estimated cost put to tender
(OR)

Two similar completed works costing not less than 60% of the estimated cost put to tender
(OR)

One similar completed work costing not less than 80% of the estimated cost put to tender

3. The eligibility documents as above i.e. the work order copy and the completion certificate must be enclosed. Hard copies of the quotation or eligibility document need to be sent to the Department Of Ocean Engineering, IIT Madras.
4. The approximate quantity proposed to be put for tender is 40000cu.m. The required discharge distance is 1.5km along the shore line.
5. The Dredger/pipeline system to the required length of 1.5 Km, suitable to the site condition is to be mobilized by the contractor. Diesel, Hydraulic oil, Engine oil, Gear oil, lubricants, ropes, spares, any other hardware and accessories necessary are at the contractors cost. The prospective contractor is advised to visit the site before submission of quote.
6. The contractor is allowed to carry out the work using single dredger or a combination of a dredger and has to be diesel driven as there is no provision for electric power in the proposed area of operation.
7. The rate should be quoted per cum., which should be inclusive of mobilization and demobilization cost. The rate quoted should include all taxes, duties, Sales tax, Purchase tax, Turnover tax, to and fro transportation charges, loading and unloading charges, transit insurance all other incidental charges and any other tax on material in respect of this contract shall be payable by the contractor and Department of Ocean Engineering, IIT Madras will not entertain any claim whatsoever in respect of the same.
8. **No advance payment will be made for any purpose.**
9. **No idling charges will be paid for any reasons.**
10. During the course of contract period, deduction of “CESS” to provide social security and various welfare benefits through the Pondichery Buildings and other construction workers Welfare Board

under Section 18 of the Building and Other Construction Workers Cess collection (RECS) Act, 1996, shall be made at the rate of 1% (One Percent) of the gross amount of each bill or as per the advice of the Government of Pondichery.

11. The contractor shall be required to deposit an amount equal to 5% of the tendered value of the work as performance guarantee in the form of an irrevocable Bank Guarantee bond of any Scheduled Bank or State Bank of India in accordance with the form prescribed or in the form of Government security fixed deposit receipt etc., as in the case of recovery of security deposit within 15 days of the issue of letter of intent but before award of work. This period can be further extended by concerned authority of IITM up to a maximum period of 7 days on written request of the contractor.
12. A sum @ 10% of the gross amount of the bill shall be deducted from each running bill of the contractor till the sum along with sum already deposited as earnest money will amount to security deposit of 5% of the tendered value of the work (bank Guarantee is not to be accepted as security deposit).
13. The contractor shall submit to the concerned authority, Department of Ocean Engineering IIT Madras on the next day a progress report for the previous day of all important activities.
14. The contractor should make all possible attempts to reduce the duration of break-down to the barest minimum such that average productive dredging hours should not be less than 12 hours a day. The dredging operation has to be carried out round the clock.
15. No accommodation will be available with the IITM or port department for the contractor or for any of the workman engaged by him.
16. The contractor shall make his own arrangement for providing all equipment, including ropes, buckets, pumps, power, water, consumable goods like bolts, nuts, gaskets, cotton waste, grease etc. together with sufficient quantity of spare parts for efficient and uninterrupted execution of the work.
17. The contractor's attention is drawn to the fact that other contractors employed by the employer may be working in the vicinity. The Ariyankuppam river mouth/channel is a common entrance for both the fishing harbor / commercial harbor and therefore there will be plying of fishing boats round the clock. The contractor should take adequate precaution not to cause hindrance or damage to the plying vessels. Any damage caused to the plying vessels will have to be handled by the contractor at his own cost.
18. The material to be dredged consists mainly of grayish white silty sand and silty clay. However, no responsibility is taken by the employer that the material actually to be dredged will correspond with that described. The contractor shall satisfy himself by any means he requires and at his own cost the nature and consistency of the material to be dredged.
19. The contractor shall adopt a systematic procedure to dredge the various areas so that a minimum of siltation takes place. **No payment is made for siltation quantity.** The contractor shall try as far as practicable to deepen the bed in stages and work over the whole portion unless he is specifically instructed by the Engineer to complete a particular portion or to dredge in a specific manner.
20. The contractor shall program the dredging and disposing of the spoils in such a manner that the whole of the work is completed within the allotted time.
21. Dredging of holes or pockets will not be allowed and the work shall be done in horizontal slices in a direction and depths as approved by the concerned authority, Department of Ocean Engineering IIT Madras.

22. All the spoil dredged under this contract belongs to the Employer and shall be disposed of in areas in such manner as may be directed by the concerned authority, Department of Ocean Engineering IIT Madras or his representatives.
23. **The payment will be based on collection of dredged material on shore. The collected soil/ dredged material has to be stacked by the contractor for measurement. The payment will be made after the survey of collected quantity by IITM.**
24. The dredge-area boundary is as marked in the drawing enclosed with the NIT. The level required in the dredge-area indicated is -4.0m (Reduced Level) in the channel and -8m (Reduced level) in the sand trap. However the Department of Ocean Engineering, IIT Madras reserves the right to increase or decrease the level required depending on the change in the channel navigability condition.
25. The Department of Ocean Engineering IIT Madras, if the situation demands, will ask the contractor to carry out dredging in patches within the breakwater area.
26. **Subletting of work is not permitted.**
27. If the contractor fails to maintain the required progress according to milestone produced in Schedule 'F' or fails to complete the work and clear the site on or before the contract or extended date of completion, he shall, without prejudice to any other right or remedy available under the law to the Institute on account of such breach, pay as agreed compensation the amount calculated at the rates stipulated below by the authority specified in schedule 'F' (whose decision in writing shall be final and binding) may decided on the amount of tendered value of the work for every completed day / month (as applicable) that the progress remains incomplete.

This will also apply to items or group of items for which a separate period of completions has been specified.

i. Compensation for delay of work : @ 1.5 % per month of delay to be computed on per day basis Provided always that the total amount of compensation for delay to be paid under this condition shall not exceed 10 % of the tendered value of work or of the tendered value of the item or group of items of work for which a separate period of completion is originally given.

The amount of compensation may be adjusted or set-off against any sum payable to the Contractor under this or any other contract with the Institute. In case, the contractor does not achieve a particular milestones mentioned in schedule 'F', or the re-scheduled milestone(s) in terms of clause 5, the amount shown against that milestone shall be withheld, to be adjusted against the compensation levied at the final grant of Extension of Time. With-holding of this amount on failure to achieve a milestone, shall be automatic without any notice to the contractor. However, if the contractor catches up with the progress of work on the subsequent milestone(s), the withheld amount shall be released. In case the contractor fails to make up for the delay in subsequent milestones, amount mentioned against each milestone missed subsequently also shall be withheld. However, no interest, whatsoever, shall be payable on such withheld amount.

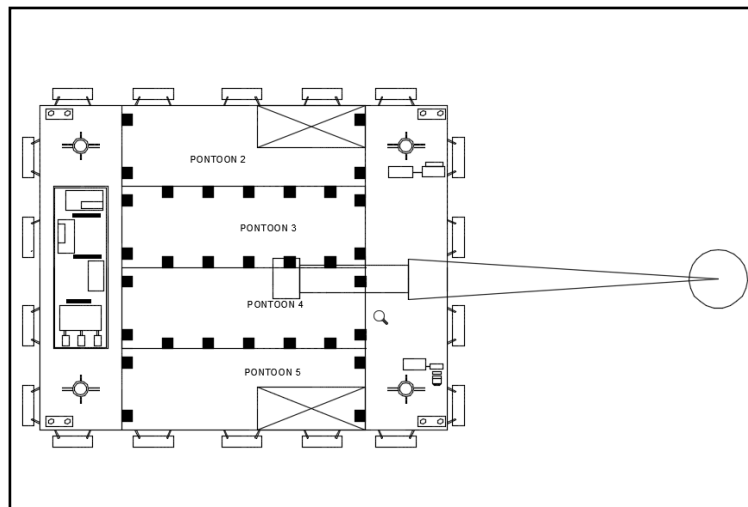
28. The undersigned reserves the right to accept or reject any tender without assigning any reason thereof.

Department of Ocean Engineering
Indian Institute of Technology Madras

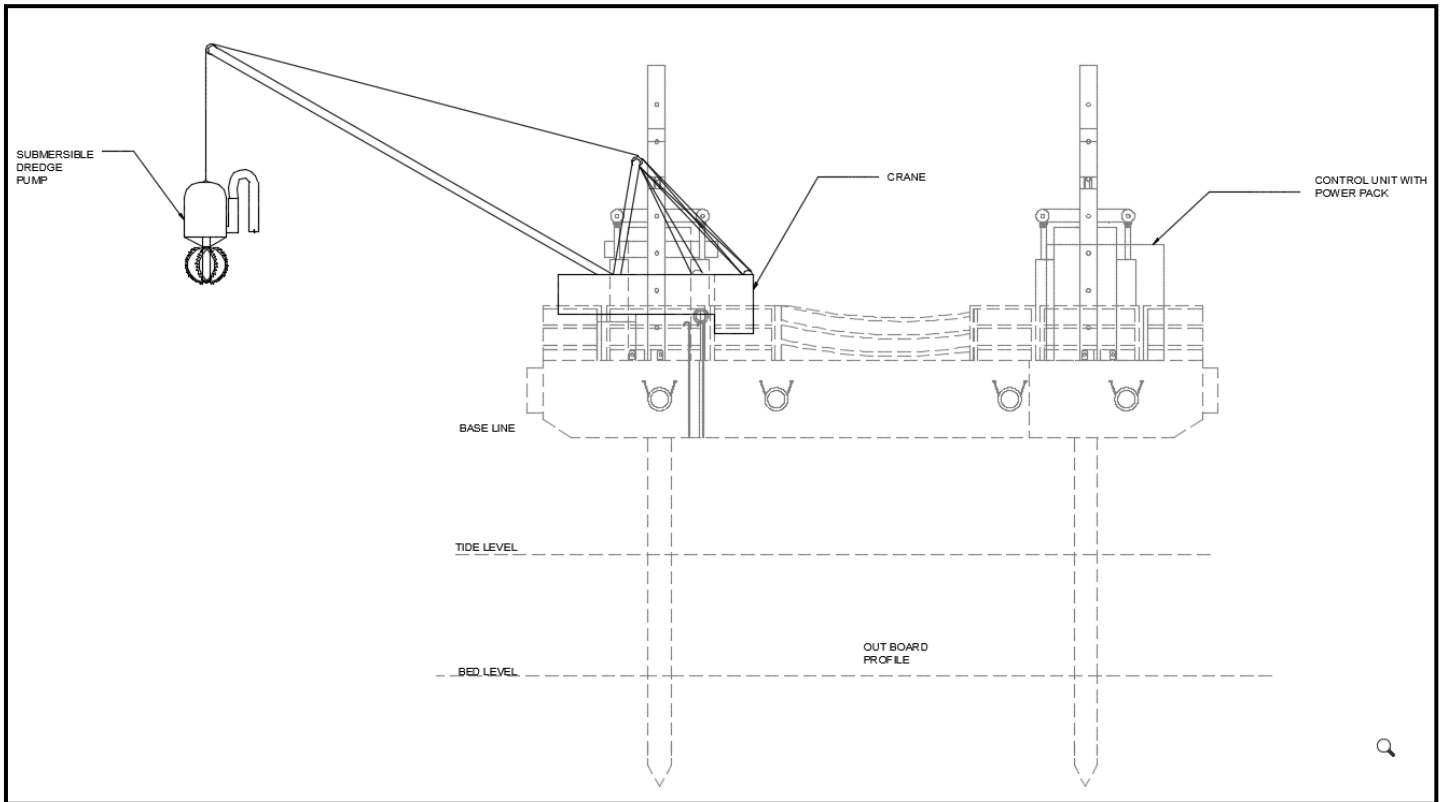
LOCATION OF DREDGING AREA



Dredging Area at Pondichery



Plan of Main Deck



Dredger with pump arrangements