National Technology Centre for Ports, Waterways & Coasts (NTCPWC)
Room No.606, 6th Floor, New Academic Complex, IIT Madras, Chennai 600 036.
Phone : 044-22578919/18

Ref: No. PROJECT No. IC/19-20/OE/376/KOPT/008130 Dated: 26th June 2020

Tender Ref. No. NTCPWC/Floating Structures/KMUR/2020/002

Item Description: Fabrication and supply of Floating structures with suitable accessories – 2 Sets (as per specification attached)

Due date : **17th July 2020 at 3.00 p.m.**

Dear Sir,

1. Sealed Quotations / Tender with compliance sheet are invited in duplicate for the various items shown below / overleaf / enclosed list.
2. The quotations are to be in two parts as Technical Offer and as Commercial Offer: (TWO BID SYSTEM). The two parts of the offer are to be clearly marked on the envelopes. The two parts of the offer in separate envelopes must be enclosed in the one bigger envelope duly sealed and superscribed with tender reference number and due date and must be addressed to the undersigned so as to reach him on or before the due date stipulated above. Fax and email quotation and delayed tenders are not acceptable. Bidders who qualified in the technical bid are only eligible and their price bids only be opened.
3. Quotations should be valid for 90 days from the due date and period of delivery required, warranty terms etc. should also be clearly indicated. Warranty clause will be as said in the specification. The successful bidder should submit Performance Security for an amount of 3% of the value of the contract/supply within 14 days from the issue of work/purchase order. The Performance Security should be furnished in the form of an Account Payee DD / FD Receipt from the commercial bank (or) Bank Guarantee from any nationalized bank in India.
4. Imported supplies should be quoted for CIP Kolkata basis indicating mode of shipment.
5. Local firms to quote for free delivery to the delivery destination mentioned. If quoted for Ex-Godown, delivery charges to be indicated separately.
6. Relevant literature pertaining to the items quoted with full specifications (and drawings, if any) should be sent along with the quotations, wherever applicable. Samples / Machine / Equipment if called for should be submitted / demonstrated at free of charges and collected back at the supplier's expenses. Compliancy certificate is to be provided indicating conformity to the technical specifications.
7. Sales Tax / General Taxes / ED if applicable and such other taxes legally leviable and intended to be claimed should be distinctly shown along with the price quoted. If this is not indicated no such claim will be admitted at any stage. The taxes leviable should take into consideration that we are entitled to have concessional Sales Tax applicable to Non-Government Educational Institutions run with no profit motive for which a concession is given. GST Concessional Certificate will be issued at the time of final settlement of the bill for 5% GST.
8. Goods should be supplied carriage paid and insured.
9. Goods shall not be supplied without an official supply order.
10. The Guarantee period of the item may be indicated clearly.
11. No advance payment will be made for indigenous purchase. However, 90% payment against delivery and acceptance and 10% after successful commissioning are agreed to wherever the installation is involved. In case of import supplies the payment will be made only through 100% Letter of Credit i.e. (90% payment will be released against shipping documents and 10% after successful commissioning wherever the installation is being done). (IIT Madras is exempted from payment of Excise Duty and is eligible for concessional rate of custom duty and GST for 5%. Necessary certificate will be issued on demand. IIT Madras will make necessary arrangements for the clearance of imported goods at the Airport / Seaport. Hence the price should not include the above charges.
12. Acceptance and Rejection: IIT Madras has the right to accept the whole or any parts of the Tender or portion of the quantity offered or reject it in full without assigning any reasons.
13. All tender amendments will be uploaded on the IITM website only. Bidders should keep themselves updated and conditions mentioned in the specification needs to be strictly followed.
    Tenders to be addressed to: The Project Co-ordinator, NTCPWC, Room No.606, 6th Floor, New Academic Complex, IIT Madras, Chennai – 600 036.

Fabrication and supply of Floating structures with suitable accessories

1. **Scope of the supply**

Fabrication and supply of Floating structures with suitable accessories as per the technical specification. (Qty. – 2 sets)

2. Requirements

The floating structures are required for monitoring the environmental parameters at Gangra and Nischintapur locations, Kolkata Port Trust (KoPT), Kolkata.

3. Technical Specification [Technical Bid Format – A]*

Sl. No.	Location/Part of the Item (To be referred with Annuxure-1)	Detailed description	Compliance (Yes/No)
1	Material	Mild Steel 2062 Grade.B. Marine anti-corrosive and anti-fouling coat as per the marine standards and practice.	
2	Overall dimensions	1. Overall height is 4.80m with diameter of 2.5m and the mast height 2.5m	
3	MAST(A)	1. Mast is Fabricated on top of Buoyancy chamber, by NPS 1 1/2”SCH40 Height of 2.300m from the bottom level flange with pipe elevated at 150mm,as flange joint.	
		2. Entire mast is made of NPS 1 1/2”SCH40, with spacing of 400mmc/c pipe 1 1/2"SCH40 welded horizontal on all four sides.	
		3. Mounting flange is made on long Hole Perforated 10mm Galvanized Sheet, Diameter of 0.300m-(5nos) welded at top of mast are all stud bolted joining all vertical flanges.	
		4. On top of the mast Mounting flange, first solar (PV) panel frame (Ref.drawing) is housed.	
4	BUOY (B)	1. The Buoy part is the buoyancy chamber of Twosegments, cylindrical and cone part, having frames inbuilt. Mast is housed on top of this part.,(Deck).	
		2. Both segments are built on NPS 24’’SCH40, of Length 2.15m, Height of 0.290m From bottom flange.	
		3. On top of this Pipe OD 0.610m, Slip –on Flange Class 150 to be Provided which is welded to pipe.	
		4. This pipe is Inserted, center of Outer Diameter 2500 x 10mm Round Plate which is vented in Inner Diameter (575mm).	
		5. First Segment is having 500mm Height, which is Conical type starting Diameter 1500mm and 2500mm on top, of having Plate Thickness 10mm.Stiffeners of 75 x10mm total 8 Nos welded to the Plate Internally, all plates are welded with Stiffeners and buoy(B) should be airtight.	

		6. Second segment has 1480mm Height and 2500mm Diameter Both the ends are enclosed with Top plate 2500mm and Lower End plate 2500mm Are Welded to form Airtight Chamber., Lower End Plate having 10mm Holes Radially for Stitch weld(Refer Drawing),.8 Nos of Stiffeners(75 x 10mm) Welded Internally on all Sides,. Except Pipe side.,	
		7. Inside this chamber, provision for Battery Housing should be provided. Cable tray of Dimension 100 X 50mm running through the Inside perimeter of the chamber, and lowered to battery height at each Quadrants should be provided.	
		8. Both Segments Should be Pressure tested of< 2 bar.	
		9. The floating structure assembly is Mounted on Diameter 1500x290ht x 10mm Thick Cylinder,8Nos Stiffeners Internally Welded.	
5	EYE PAD (F)	1. Eye Pad is Located on Deck 4 Nos. Equally Spaced, Above Stiffeners Underneath,forlifting.	
		2. All Eye Pad is Welded on Rectangle Plate,300x60x10mm on Deck. Refer drawing for dimensions.	
		3. 4 Nos. of Eye pad is Provided on structure's cone Segment Bottom Facing, formooring facility.	
6	CLUMP WEIGHT (D)	1. Clump weight is the bottom most part of the Vessel of Outer Diameter 1900mm and Inner diameter 1500mm and Thick of 50mm, Inserted and welded on Diameter 1500 x 10mm Thick, Height of 290mm. 2. Hole of 35 Dia.on P.C.D.1700mmX20Nos should be provided. 3. M32 Stud of length 200mm of 25Nos.with double nuts should be provided.	
7	DECK (C)	1. Deck having Diameter of 2500mm, is the working platform comprising Mast, Eye Pad,Manhole and provision for Handrail.	
8	MANHOLE (G)	1. Manhole to Access the 1500mm Length Cylinder Part, climbing provision to be Provided inside of the cylinder.	
9	VENT PIPE (E)	1. Vent Pipe Starts 290mm from bottom, has Length of 2.15m& NPS of 24''SCH40,Runningthrough the Buoy Assembly,and Raised At Height of 150mm above deck level as shown in the Annexure-1	
10	TEST CERTIFICATES	1. Material test certificates	
		2. Pressure tested certificate for Buoy (c)	
		3. Water leak test	
		4. Weld test certificates, PT,UT	

*** Technical compliance sheet to be attached in the technical bid.**

4. **Eligibility**

   The bidder must have a strong presence of at least five years in the Indian market and should have fabricated and supplied similar type of equipment such as pressure vessels, Boilers, etc., to a govt. agency. Documents proofs for having supplied such equipment to be attached alongwith bid for verification.

5. **General**

   Detailed Fabrication Drawing will be provided along with the purchase order and **Items.**

6. **Inspection**

   Inspection/s will be made by NTCPWC-IITM officials while fabrication and testing of the item at the vendors fabrication facility.

7. **Specification test**

   Specification of all items to be ensured by IITM before acceptance of the same.

8. **Training**

   Hands on training to be provided to get operating knowledge of the items.

9. **Dispatch & delivery destination**

   All items should be properly packed in the suitable box and it should be dispatched to **Kolkata Port Trust (KoPT), Kolkata, West Bengal.**

10. **Delivery period**

    Items should be supplied **within 3-4 weeks** from the date of receipt of purchase order.

11. **Validity**

    The offer should be valid for 90 days.

12. **Warranty**

    One-Year Warranty from the data of delivery for material and workman ship.

In case of any technical clarification, please contact leo@ntcpwc.iitm.ac.in

Price bid format to be followed - B

Sl. No	Item	Qty.	Price (INR)
1	Fabrication and supply of floating structure with suitable accessories as per the technical specification	2 Sets	
2	Testing as per Sl.no.10/Technical specification	2 Sets	
3	Charges covering P&F, Transit insurance, and transport charges on door delivery basis upto Kolkatta port	2 Sets	
4.	Without GST, inclusive of all sub total [1 to 3] for 2 Sets		
5.	GST as applicable for 2 Sets		
6.	Total [4 & 5]		

***Total value of the bid inclusive of all above item will be considered for selection of lowest bidder.**

I/We the bidder accept all the terms and conditions as per Tender No: NTCPWC/Floating Structures/KMUR/2020/002 including all technical & commercial conditions.

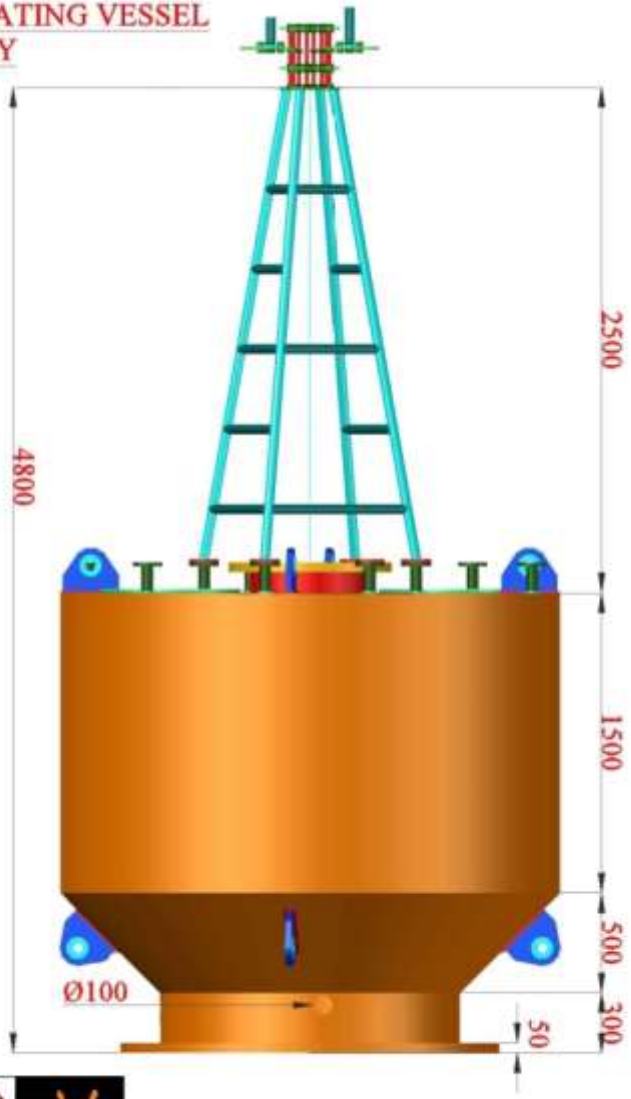
Date : **Authorised Signatory**

Place : **(for _____)**

Annexure-1

General assembly drawing of the Floating structure

WEATHER FLOATING VESSEL
G.A ASSLEMBLY



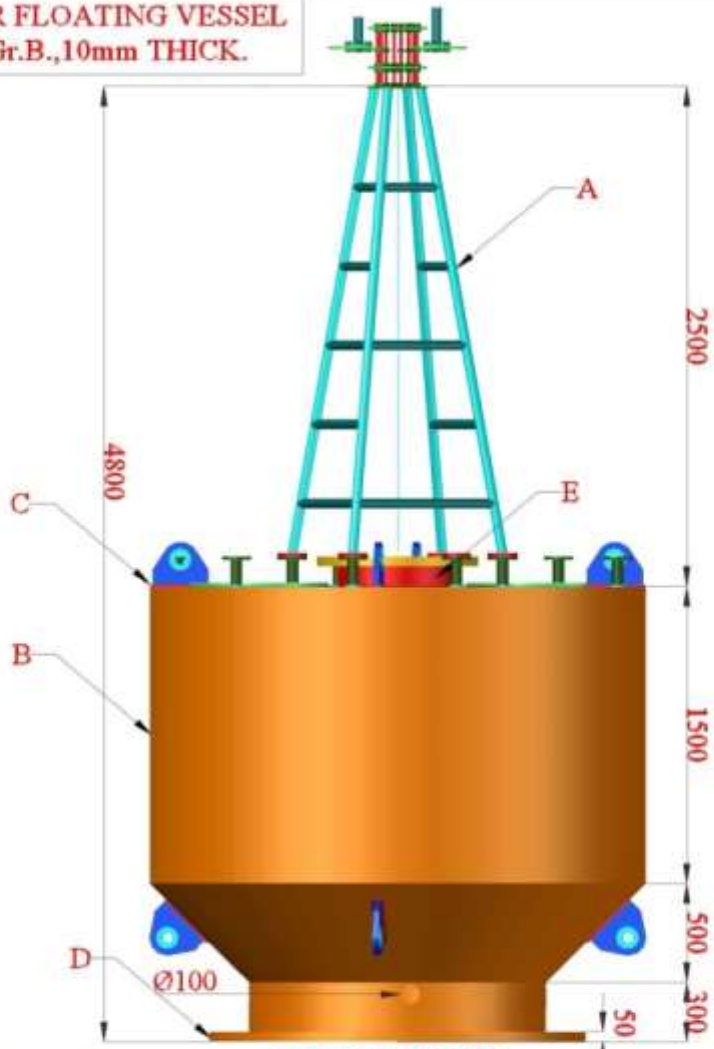
WEATHER FLOATING VESSEL
M.S.2062 Gr.B.,10mm THICK.

NTCPWC/DRG/002/VER/00/PROJ00/23JUN20

ALL DIMENSIONS ARE IN mm

SHEET 1/4

WEATHER FLOATING VESSEL
M.S.2062 Gr.B.,10mm THICK.

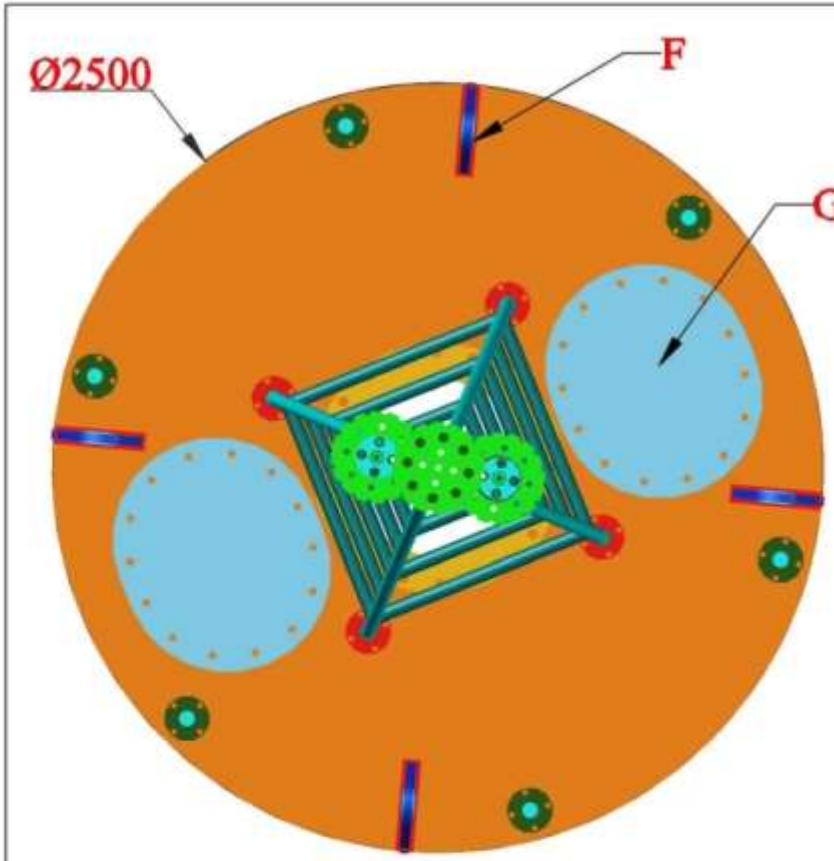


FRONT VIEW

ALL DIMENSIONS ARE IN mm

A	MAST
	Mast pipe 2320mm.2500m from deck. Accomodated on OD150 Flange with pipe elevated height 180mm from deck
B	BUOY
	BUOY Material M.S.2062 Gr.B.All 10mm Thick BUOY Ø2500mm & Overall Height 4800mm
C	DECK
	Height 2300mm from Bottom, Accommodates Mast,Man hole Flange & Eyepad
D	CLUMP WEIGHT
	Clump Weight Flange OD1900mm ID 1500mm, THK 50mm Welded Bottom of the BUOY
E	VENT PIPE
	NPS 24" SCH40 Pipe length of 2150mm, 610 OD with 150mm elevated above deck level
	NTCPWC/DRG/002/VER/00/PROJ00/23JUN20
	SHEET 2/4

NATIONAL TECHNOLOGY CENTRE FOR PORTS WATERWAYS AND COASTS
NTCPWC



TOP VIEW

F	PAD EYE
	PADEYE Plate Eye Ø52mm, H 215, L280, W 30mm Overall Width 40mm. 4Nos on DECK for lifting 4Nos Below For MOORING
G	MANHOLE
	Man Hole Inner Width 570 x 470mm Man Hole Cover 770 x 670mm
	NTCPWC/DRG/002/VER/00/PROJ00/23JUN20
	SHEET 3/4

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SAGARMALA

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NATIONAL TECHNOLOGY CENTRE FOR PORTS WATERWAYS AND COASTS
FRONT VIEW
TOP VIEW
SIDE VIEW
BOTTOM VIEW
NTCPWC/DRG/002/VER/00/PROJ00/23JUN20
SHEET 4/4