

**BANGLADESH INLAND WATER TRANSPORT AUTHORITY (BIWTA)
141-143, MOTIJHEEL COMMERCIAL AREA, DHAKA-1000, Bangladesh**

No: 18.11.0000.311.14.024.2019/২৯৬৭

Date: 02-03-2020

Minutes of the Pre Tender Meeting held on 19-02-2020 at 11:00 hrs. at the conference room of BIWTA Bhaban (Level-6), 141-143, Motijheel C/A, Dhaka-1000, Bangladesh in connection with the Tenders for “Procurement of 01(One) No. Pontoon-mounted Grab Dredger with Dredge-Material Carrying Barges (GD-19)”, tender No. 18.11.0000.311.14.024.2019/2589, dated:26-01-2020.

A Pre Tender meeting was held in the conference room of BIWTA on 19.02.2020 at 11:00am. The Meeting was presided over by the Member (Engineering), BIWTA. The Chief Engineer (Dredging) & Project Director, Additional Chief Engineer (Marine-1), Additional Chief Engineer (Marine-2), Superintending Engineer (Mech.) & other official concerned of BIWTA were present in the meeting. The representatives from Khulna Shipyard Ltd., PLM Cranes B.V, The Netherland, Dekker Dredging, The Netherland, TOYOTA TSUSHO CORPORAION, Japan, Posco International, N. WAVE CORPORATION & A. C Roy & CO, Kolkata attended the meeting.

Some questions were raised verbally and written in the meeting by the representatives of the prospective tenderers. All clarifications sought or questions raised were discussed and answered by the BIWTA officials concerned. The raised questions or sought clarifications with their corresponding answers/clarifications are given below :

SI no	Tender clause no	Tender Conditions given by BIWTA	Questions/Clarifications sought by the prospective tenderer	Answers/Clarifications
01	ITT clause 14.1(b)(ii) of Tender Data Sheet	The foreign reputed dredger manufacturer must submit of its at least 15(fifteen) years of experience in manufacturing & overseas supply of Class Grab crane/ Class Grab Dredgers/ Class Crane Barge (with proven documentary evidences). The dredger manufacturer must submit proven satisfactory performance certificate of its Class Grab crane/ Class Grab Dredgers/ Class Crane Barge which is issued by its client (s) supplied.	Requested to consider manufacturer’s representative’s participation.	This condition shall remain unchanged.
02	Section 6: A. List of Goods and Delivery Schedule (Page no-101)	Tender is floated to procure 01(one) no. Pontoon Mounted Grab Dredger, 01(one) no. Self-Propelled Split-Type Dredge-Material Carrying Hopper Barge, 01(one) no. Self-propelled Dredge material carrying Barge with other accessories.	Requested to replace “Self-Propelled Split-Type Dredge-Material Carrying Hopper Barge” by “Non-Propelled Split- Type Barge”.	This condition shall remain unchanged.

m

Sl no	Tender clause no	Tender Conditions given by BIWTA	Questions/Clarifications sought by the prospective tenderer	Answers/Clarifications
03	Section 6: A. List of Goods and Delivery Schedule(Pa ge no-101)	The Delivery/Completion time is given 18 (Eighteen) months from the date of signing of contract.	Requested to extend the delivery/completion time more than 36 (Thirty-six) months.	This condition shall remain unchanged.
04	1.09 of technical specification of Pontoon Mounted Grab Dredger (Page -109)	The hull of the grab dredger including its main engines, generator, electro hydraulic installations etc. shall be built and classed for 'Coastal Area' under the rules and regulations of International Classification Society of Lloyds/NKK/ABS/DNV.G L/BV.	Requested to include IRS Classification Society in addition to the Classification Society of Lloyds/NKK/ABS/DNV.G L/BV.	This condition shall remain unchanged.
05	ITT clause 14.1(b)(i) of Tender Data Sheet	(i) The minimum specific experience as Supplier in supply of similar Goods (Grab Dredger/ Grab crane/ Crane Barge) of at least 1 (One) contract successfully completed within the last 5 (five) years. (i.e. years counting backward from the date of publication of IFT in the newspaper), each with a value of at least BDT 1620.00 (One thousand Six hundred Twenty) million or US\$ 19.00 (Nineteen) million. Or The minimum specific experience as Supplier in supply of similar Goods (Grab Dredger/ Grab crane/ Crane Barge) of at least 2 (Two) contract(s) successfully completed within the last 5 (five) years. (i.e. years counting backward from the date of publication of IFT in the newspaper), each with a value of at least BDT 810.00 (Eight hundred Ten) million or US\$ 10.00 (Ten) million.	Asked for a Confirmation about the Exchange Rate that may be considered for the conversion in order to substantiate the order value of similar works.	The conversion/ Exchange rate is applicable on the date of tender opening of that concerned work which will be used for determining the value of similar works by you.

me

Sl no	Tender clause no	Tender Conditions given by BIWTA	Questions/Clarifications sought by the prospective tenderer	Answers/Clarifications
06	ITT clause 15.1(a) of Tender Data Sheet	The minimum amount of liquid asset or working capital or credit facility is BDT 2025.00 (Two thousand and twenty-five) million or equivalent US\$ 24.00 (Twenty-four) million.	Requested for a Confirmation about the Exchange Rate that may be considered for the conversion value of Liquid Assets/ Working Capital for qualification.	The tenderer shall submit Bank certificate of liquid asset or working capital or credit facility on Exchange Rate of issuing date of that certificate.
07	GCC clause 32.1 of Particular Conditions of Contract (Page:73-76)	There are provisions mentioned in the Tender document to inspect the engines, generators, grab crane, winches in different stages.	Can the stage Inspections in case of goods are manufactured in India be clubbed for the Grab Dredger, Self-Propelled Split-Type Dredge-Material Carrying Hopper Barge and Self-Propelled Dredge material carrying Barge.	The stage Inspections shall be conducted according to GCC clause 32.1 of the tender document.
08	GCC clause 23.2 of Particular Conditions of Contract (Page No-62) & Price Schedule for Goods (Form PG4-3B) (Page No-88)	"For Goods supplied from abroad as per INCOTERM CIF or CIP" & Price Schedule Form PG4-3B.	Goods supplied from abroad shall be as per INCOTERM CIF or CIP however in the relevant price schedule from PG4-3B in column 9 you have stated 'Vat Payable on Account of Supplier if the contract is awarded'- 'If applicable as per Vat Act'. Both seem to be contradictory. Please clarify that should we manufacture the goods in India and deliver through Inland Transportation via river ways, leviable tax if any in Bangladesh shall not be in our scope. As per INCOTERMS we understand that the Exporter pays the Tax in the exporter's country and Importer pays the Tax in importer's country. Kindly furnish the clear information and amend the Price Schedule Form PG4-3B as applicable.	The tenderer shall follow ITT Clause 23 and GCC clause 29 of the tender document for Vat, tax and Price Schedule Form PG4-3B.
09	1.10 of technical specification of Pontoon	Spud Length (Approx.): 20 meters.	Requested to increase the Spud Length.	<u>This condition will be replaced by:</u> Spud Length: As per the recommendation by

m

Sl no	Tender clause no	Tender Conditions given by BIWTA	Questions/Clarifications sought by the prospective tenderer	Answers/Clarifications
	Mounted Grab Dredger (Page:110)			the manufacturer/ Designer for suitable dredging operation.
10	ITT Clause 23.12 (d) & Price Schedule for Goods (Form PG4-3B) (Page No-88)	In addition to the CIF/CIP price specified in ITT 23.12(a), the price of the Goods manufactured outside Bangladesh shall be quoted: Dredger Base, BIWTA, Narayanganj, Bangladesh. & Price Schedule for Goods (Form PG4-3B) [Group B Tenders: Goods Manufactured outside Bangladesh, to be imported]	Please confirm by CIP or CIF, tenderer shall quote the price of goods manufactured outside Bangladesh.	The Unit price "CIP [Chattogram port/ Mongla port] Or CIF [Chattogram port/Mongla port]" as stated in Column-06 of Price Schedule for Goods (Form PG4-3B) shall be replaced by "CIP [Dredger Base,Narayanganj, Bangladesh]".
11	-	-	Would you allow any factor of escalation in order to evaluate a work order of previous years to bring it to the equivalence of current year, if so, please state the factor year wise for the last five years?	No, there is no scope of escalation in order to evaluate a work order of previous years to bring it to the equivalence of current year.

12. Clause 1.30 of technical specification of Pontoon Mounted Grab Dredger (Page:117) for online monitoring system will be replaced in the following manner:

The dredger shall be equipped with following online monitoring system:

a. General Specification:

The system should have RTK (Real Time Kinematic) heading GNSS (Global Navigation Satellite System) with beacon tracking capability; inclinometers/angle sensors and on-board software which should be able to work with a RTK GNSS base station both using radio as well as cellular RTK communication. This system should be able to work with a predefined design surface providing guidance to dredger operator for accurate dredging and should be able to update and store the as-built dredging surface in real time during operation. It should provide requisite software in office to view remote dredger in real time - the views and data will be similar to what the dredge operator is viewing, that is position of dredger and cutter depth relative to the bathymetry survey and the design surface. All parts (sensors, GNSS & software) shall be supplied preferably from one manufacturer. Tenderer shall submit manufacturer Authorization Letter for online monitoring system. This online monitoring system will be installed in the dredgers which are subjected to continuous dredging operation with a dredging depth up to 25 metres. Therefore, the tenderer have to submit their offer with consideration of the above matter. Details Specification has given below:



Sl no	Item	Quantity (unit)	Characteristics	Specification
i	GNSS Rover	1 no.	Satellite Tracking	Should be Capable of tracking, GPS, GLONASS, GALILEO, BeiDou DGNSS Corrections via MSK Beacon Reception , 2 Channel SBAS (WAAS/EGNOS/MSAS/GAGAN)
			Measuring Modes	Real-time Kinematic
			Number of Channels	400 or more
			Real Time Accuracy for Kinematic	
			Horizontal	8 mm + 1 ppm or Better
			Vertical	15 mm + 1 ppm or Better
			Code Differential Accuracy	25 cm + 1 ppm or Better
			GNSS Antenna	2 nos separate antenna with each GNSS Rover for heading. Should be able to work with MSK Beacon. To be supplied with minimum 10 meter antenna cables / required length as per design of crane Boom.
			Memory	6GB Internal memory, Should have expandable facilities through memory stick
			Communication	Should have 3 serial ports or more Mini USB, Ethernet port, pps output or Better Should have inbuilt Wi-Fi, Bluetooth, Radio, cellular in a single housing as GNSS Receiver.
			Physical and Environmental Specification	
			Operating Temperature of GNSS Receiver	-40°C to +65°C or Better
			Storage Temperature of GNSS Receiver	-40°C to +95°C or Better
			Shock	MIL-STD 810F or Better
			Position Update Rate	20 Hz or Better
			Water and Dust	IP67 water proof, Should be Dust proof or Better
			NMEA output	Support for NMEA output.
			RTK Corrections data format input/output	At least RTCM 2.x, 3.x, 3.1 input & output, CMR+ CMRx
			Power	
			Internal	Removable Internal battery for minimum 6 hours rover operation
			External Power	9-36 V DC external power input. Should have Overvoltage protection
			System	
			On-board keyboard and display	OLED display with 4 arrow keys (up, down, left, right) and OK key or Better

ii	Dual Axis Angle Sensors	1 set (Each set consists of 2 nos)	Dual Axis Angle Sensors	
			Sensor Enclosure	E-Coated aluminum 6061 equivalent alloy. Stainless Steel backing or Better
			Connection Port	Minimum 2 x Deutsch DT series 4-pin male compatible
			Signal Output	CAN bus J1939. Pin 1: GND, PIN 2: V+, Pin 3: CAN Low, Pin 4: Can High or more
			Range	+/- 180° pitch, +/- 75° roll, +/- 2 G acceleration, +/- 200°/s rate of rotation
			Output Rate	1, 25, 50, 250 Hz configurable
			Low dynamic tilt accuracy	+/- 0.1° Less than 1.5 meters per second or equivalent.
			High dynamic tilt accuracy	+/- 0.5°
			Dynamic Accuracy Limit	300°/s or Better
			Operating Vibration Limit	5 G peak or Better
			Supply Voltage	9 ~ 30 V DC
			Power Supply Protection	Any polarity up to 36 V
Environment Protection	IP67 or Better			
iii	Multi Turn Cable drum Sensor	01 set	Multi-Turn sensors	
			Signal Output	CANopen
			Sensor Enclosure	Sensor Encasing should be - Wet coating (RAL 9006 white aluminium) + Cathodic corrosion protection (salt spray resistance)
			Operating & Storage	-40°C to 85°C
			Humidity	98% RH, no condensation
			Connection Port	2 x M12 connectors, 5 pin, male and female
			Vibrator resistance	Vibrator resistance < 10 g
			Environment Protection	IP67
iv	Proximity cable drum Sensor	01 set	Proximity Sensors	
			Sensor Enclosure	Should be with 2 pole Grey-coded technique
			Signal Output	CANopen
			Humidity	Humidity 98% RH, no condensation
			Sensor Enclosure	Sensor Encasing should be Steel housing zinc plated
			Vibrator resistance	Vibrator resistance < 10 g
			Connection Port	Connection type -5x M12 connectors
			Power	10-30 VDC via the CAN harness
			Operating temperature	-40C and +70C
			Storage temperature	-40°C to 85°C
Environment Protection	IP67			
v	Rugged Computer to Run On-dredge Marine	01 No	Rugged Computer	Rugged vehicle type computer running windows 10 & UPS with a separate screen with OEM specified specification to run on-dredge Marine Software with power cable carrying bag

m

	Software			and other related accessories
vi	On Dredge Software	01 No	<p>The software should supports visualization and monitoring of the angle and position of the boom and crane position.</p> <p>It also should shows the absolute position of the grab/tool in relation to the surveyed and any number of design surfaces.</p> <p>The working surface should be updated with the dredged depths in real time and displayed in plan, profile and 3D views.</p> <p>Over-dredge and under-dredge tolerances can be set and are visible on the profile view of the dredge head.</p> <p>The software should support customizable interface: Multiple monitors, with independent layouts can be tailored to the needs of the dredge operator. A color-coded plan view and 3D rendering highlights high and low spots.</p> <p>The surface Digital Terrain Model (DTM) is updated in real time registering the progress of the dredging work showing depth, differential and production models all updated according to progress of the cutter head.</p> <p>Should support Continuous data logging for as build and volume reports.</p> <p>Should support Dredge tolerance visualization provides guidance for accurate, efficient dredging productivity.</p> <p>Should be configurable by Administrator who can configure the screens for a specific workflow/user and lock it down for the operator, this helping to work on a preconfigured manner without any obstacle.</p> <p>Import or build project design and survey models in the office or field.</p> <p>Should Supports RTK for precise tide and heave calculation.</p> <p>Should Support Print of plans and cross sections of the dredging area being true to scale</p> <p>Should Support Export of the data into CAD- or GIS-programmes.</p> <p>Should Support Dredger obstacles, intermediate medium and other special features of the deposit</p> <p>Should Support Operation Data Dashboard (visualization of dredging performance).</p>	
vii	GNSS Base	01 No	Measurements Specification	
			Satellite Tracking	Should be Capable of tracking, GPS, GLONASS, GALILEO, BeiDou or more
			Measuring Modes	Real-time Kinematic
			Number of Channels	400 or more
			Real Time Kinematic Accuracy	
			Horizontal	8 mm + 1 ppm or Better
			Vertical	15 mm + 1 ppm Better
			Code Differential GPS Positioning	
			Horizontal	25 cm + 1 ppm or better
			Vertical	50 cm + 1 ppm or better

			GNSS Antenna	Modular receiver and antenna
			Others	Tripod, Tribach with optical plummet and Tribach Adaptor for Base GNSS-01 Set to be supplied.
			Communication	Minimum 2 External Power ports (Power ports should not be connected internally), 1 Serial Port, 1 lemo port, Bluetooth, Ethernet. Base Station should be configurable using Ethernet port External 35watt UHF radio for RTK Base.
			Physical and Environmental Specification	
			Operating Temperature for GNSS	-40°C to +65°C or Better
			Storage Temperature for GNSS	-40°C to +75°C or Better
			Position Update Rate	upto 20 Hz
			Water/Dust	IP67 1m water immersible/ Should be Dust proof or Better
			Power	
			Internal Battery	at least 10 Hours
			External Power	Cable to connect the system to a 12v battery should be supplied.

b. Software Supply: For Dredger.

i.	Remote Monitoring Software in Office providing real time field information to office when field dredgers are connected to office through Internet using cellular or some other communication	01 No.	Should be able to view a remote dredger operation in real-time The views and data will be similar to what the dredge operator is viewing i.e position of dredger and dredging tool relative to the bathymetry survey and the design surface. The office software can view individual dredgers as required. Tracking of each Dredgers productivity from Office computer Volume estimation of removed material Monitoring of the fuel efficiency of the all operating dredgers.												
ii	Computers	02 Nos	For monitoring purpose 02 (two) Computers shall be supplied by the supplier. The minimum specifications of each of the computers are as follows: <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: center;">Minimum Specifications</th> </tr> </thead> <tbody> <tr> <td>Operating System</td> <td>Windows 10 Professional Version (Genuine)</td> </tr> <tr> <td>RAM</td> <td>8GB</td> </tr> <tr> <td>Hard Drive (GB)</td> <td>512 GB SSD</td> </tr> <tr> <td>Processor (CPU)</td> <td>64-bit processor with 4 parallel threads, Intel 5th Gen i7 or better</td> </tr> <tr> <td>Display</td> <td>Recommended: 1920×1080, Minimum:</td> </tr> </tbody> </table>	Minimum Specifications		Operating System	Windows 10 Professional Version (Genuine)	RAM	8GB	Hard Drive (GB)	512 GB SSD	Processor (CPU)	64-bit processor with 4 parallel threads, Intel 5th Gen i7 or better	Display	Recommended: 1920×1080, Minimum:
Minimum Specifications															
Operating System	Windows 10 Professional Version (Genuine)														
RAM	8GB														
Hard Drive (GB)	512 GB SSD														
Processor (CPU)	64-bit processor with 4 parallel threads, Intel 5th Gen i7 or better														
Display	Recommended: 1920×1080, Minimum:														

m

			1366×768
		Graphic Card	DirectX Graphics Card, More than 1 GB graphics memory
		Power	9-32 V DC input range
		USB Ports	4
		Serial	1 × DB9 (RS232)
		Ethernet	1 × RJ45
		CAN Bus	1 × DB9(M), Compatible with IXXAT (eg. CAN-IB120/PCIe Mini)
		Mounting Bracket	VESA 100 mm × 100 mm
		Shock	10G Peak Acceleration (11 msec duration)
<p>All Computers including Rugged Computers shall be configured with the Genuine Windows 10 along with Anti-Virus (Kaspersky).</p>			

Country of origin for online monitoring system- USA/CANADA/JAPAN/EU Countries/Australia/UK/ New Zealand/Mexico

- c. Complete Local Training on GNSS RTK based Real Time Dredge Monitoring Solution for Pontoon Mounted Grab Dredgers is to be arranged for 10 (ten) BIWTA engineers for 10 (ten) days and 3 (Three) days training every 3 (Three) months up to (01) one year by the supplier's own cost through Original Equipment Manufacturer. Accommodation, food, transport and all other allowances for the trainers to be borne by the supplier.

If any Manufacturer is restricted to the above mentioned technical specification then other equivalent / better Specification of Real Time Dredge Monitoring Solution for Pontoon Mounted Grab Dredger can be offered.



13. Tenderer shall have to mention Permissible Heel Angle & Permissible Trim Angle of Grab Dredger with the offer.
14. To excavate dredge material of irregular shape, one additional Orange Peel Grab/ Bucket shall have to be supplied.
15. All other terms & conditions in the tender document shall remain unchanged.
16. This minutes shall be the integral part of the tended document.

-sd-

(Md. Abdul Matin)
Chief Engineer (Dredging)
&
Project Director

Distribution:

1. PLM Cranes B.V., Sluisweg 25 4794 SW Heijningen The Netherlands Tel: +31 (0) 167 - 528 5 10 Email: info@plmcranes.com
2. Toyota Tsusho Corporation, Tokyo Head Office 2-3-13, Konan, Minato-Ku, Tokyo, Japan. Email: takashi_komiyama@toyota-tsusho.com
3. Dekker BV, Rivierkade 3, 4931 AA, Geertruidenberg, The Netherlands, Ph: +310162-570199, Email: info@dekkerdredgers.com
4. A.C. Roy & Co., Diamond Heritage Building, 16 Strand Road, Room No 1505, Kolkata – 700 0001, Tel: (033) 2262 8600/ (033) 6645 1291/ (033) 6645 1292 E-mail: ho@acroyshipbuilders.in/ acroy55@yahoo.com.


Chief Engineer (Dredging)
&
Project Director