



Additional Tender Terms & Conditions
GEM Bid no GEM/2025/B/ 7142605

Procurement of Glass Windows Confirming to Class Requirement for 01 TS and 06 NGOPVs of ICG Y-16101, 16401 to Y-16406

1. DESCRIPTION & SCOPE OF WORK:

- (a) **MAIN EQUIPMENT/ITEM/SYSTEM:** Procurement of Glass Windows Confirming to Class Requirement & MDL Approved Drawing for Project 01TS and 06 NGOPV of India Coast Guard. As per TSP nos 2046 rev 02 dt 16.12.2025 section II page nos 13.

Clear sizes of windows are indicative and exact sizes to be finalised post placement of order in consultation with MDL. Location of windows drawing (1628-01) sheet 2 is enclosed for shape of window.

- (b) **INSTALLATION MATERIAL:** As per TSP cl nos 17 and 18 page nos 8
- (c) **ON BOARD SPARES (OBS):** OBS for sufficient quantity for exploitation & on-board maintenance up to 2 years from date of completion of " Standard Warranty" (As mentioned in warranty cl no.29 and 30 page nos 11 of TSP) is required to be provided along with the main equipment. Please refer TSP cl nos 19 page nos 8 for more details.
- (i) OBS will be ordered along with the main equipment.
- (ii) It is mandatory to quote OBS for 2 year of exploitation period.
- (iii) For ranking the bids OBS cost will be considered.
- (d) **DOCUMENTATION:** As per TSP cl nos 12 and 31 page nos 6 & 11

Note: Bidders shall quote for all line item in the tender, failing of which offer of the firm falls under rejection criteria.

2. **EARNEST MONEY DEPOSIT:** Bidders shall furnish EMD of **Rs. 7,00,000/- only (Rupees Seven lakh only)** through NEFT / Demand Draft / Pay order / Bank Guarantee / Insurance Security Bond / e-Bank Guarantee drawn in **favour of Mazagon Dock Shipbuilders Limited.**

EMD shall be submitted as per GeM Terms & condition.

EMD exemption will be applicable as per GeM conditions and bidders shall upload valid EMD/EMD Exemption Certificate along with the bid. In case valid exemption certificate is not submitted along with original bid, the offer of the firm will be rejected.

EMD is also exempted for the bidder's permanent registered with MDL. To qualify for EMD exemption, bidder shall upload valid copy of the Registration Certificate issued by MDL, for the tendered items (Toughened Glass Window) for which the offer is being submitted. Firms in the process of obtaining MDL registration will not be considered for EMD exemption.

EMD shall be forwarded to DGM/PE(C-CGP), 5th Floor, New Service Block, North Yard, Mazagon Dock Shipbuilders Limited, Shipbuilding Division, Dock Yard Road, Mumbai-400010, Maharashtra, in sealed envelope super scribing Tender Enquiry No. and Due date, so as to reach us within 7 MDL working days from the tender closing date. The scanned image of EMD shall be uploaded at Part-I tender stage.

Note:

- a) EMD of unsuccessful bidders will be returned after finalization of the tender and shall be interest free.
- b) EMD of successful bidders may be converted into performance security or refunded on receipt of performance security. The returned / refunded EMD would be interest free.

MDL BANK DETAILS:

Name of Bank A/C Holder: Mazagon Dock Shipbuilders Limited

Bank and Branch: State Bank of India, Commercial Branch, Fort, Mumbai-400023

Type of Account: Current Bank



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Account No: 11079519138
IFSC Code: SBIN0006070
Swift Code: SBININBB101
PAN No.: AAACM8029J
MDL GST: 27AAACM8029J1ZA

Offers with non-submission of EMD shall be categorically rejected other than exempted category.

3. PRE-QUALIFICATION CRITERIA:

Technical PQ Criteria:

Vendor shall have past experience of Manufacture and supply of "Toughened Glass Window" for any ocean going vessel. PO copies & work completion certificate (invoice, delivery challan, WDCs, etc) must be submitted with offer in support of past experience.

Commercial Qualification Criteria for Goods:

The average annual financial turnover of 'The bidder' during the last three years, ending 31st March (or any other year ending followed in relevant country) of the previous financial year excluding the calendar year of tendering should be at **INR 37,00,000** /- as per the annual report (audited balance sheet as applicable and profit and loss account) of the relevant period, duly authenticated by a Chartered Accountant/Cost Accountant in India or equivalent in relevant countries.

4. VALIDITY PERIOD OF OFFER:

- I. Bid / Offer shall have the validity period of **180 days** from the tender closing date.
- II. In case the day up to which the bids are to remain valid falls on/ subsequently declared a holiday or closed day for MDL, the bid validity shall automatically be deemed to be extended upto the next working day.
- III. In exceptional circumstances, before the expiry of the original time limit, MDL may request the bidders to extend the validity period for a specified additional period. The request and the bidders' responses shall be made in writing or electronically. A bidder may agree to or reject the request. A bidder who has agreed to MDL's request for extension of bid validity, in no case, he shall be permitted to modify his bid.

5. BID REJECTION CRITERIA

(a) **Categorical rejection criteria:** The following conditions / deviations are non-negotiable and therefore any bid falling under these conditions / deviations shall be summarily rejected. Bidders to note that they shall not be provided any opportunity to rectify these conditions / deviations post **Part-I bid opening:**

- I. Bids received after tender closing date and time.
- II. Bids received other than through GEM portal (in case of GEM tender)
- III. Bidders who are debarred under PPP MII order 2017, GeM, CPPP including Tender holiday issued by MDL.
- IV. Bids received without EMD (other than those who are exempted from payment of EMD).

(b) **Liabe rejection criteria:** Non-compliance/non-acceptance to any of the terms and conditions of the tender.

6. SUBMISSION OF OFFER IN TWO BID SYSTEM: Offer must be submitted in two parts as follows:

a) **Part I (Techno Commercial Bid):** The bidder shall ensure following are essentially included in the Part-I bid:



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- (i) Technical & Commercial offer.
- (ii) Pre-qualification documents.
- (iii) Valid MSME Udyam Certificate, MDL Registration Certificate & ISO Accreditation Certificate (If applicable),
- (iv) Taxes and duties certificate for which they are registered.
- (v) Compliance Certificate w.r.t. Land Border Clause
- (vi) Blank rate sheet indicating quoted/not quoted against each line item, tax percentage, type of taxes for each line item in terms of percentage of total quote.
- (vii) PO copies along with Work completion certificate proof for technical pre-qualification criteria.
- (viii) Declaration of "Local Content as specified in the tender.
- (ix) Bidder contact details as per attached enclosure" Contact Details of the bidder
- (x) Bidders are required to provide 02 set hard copies of Techno-Commercial Offer to MDL within 07 days from date of closing of tender addressed as under:

HOS (SB-Design -Outfit)
K.A. – Mr. Kiran Rajput, CM (SB-Design -Outfit)
2nd Floor, West Block
Mazagon Dock Ship Builders Limited
Dockyard Road, Mumbai 10

The original IP to be submitted or couriered to MDL within 15 days after tender closing date. Address: DGM/PE(C-CGP), 5th Floor, New Service Block, North Yard, Mazagon Dock Shipbuilders Limited, Shipbuilding Division, Dock Yard Road, Mumbai400010, Maharashtra, in sealed envelope super scribing Tender Enquiry No. and Due date. The scanned image of IP shall be uploaded at Part-I tender stage.

Note: In any case, prices are not to be mentioned in Part-I bid.

b) **Part-II (Price Bid):** Prices for each of the listed items has to be uploaded on GEM.

7. DELIVERY PERIOD/COMPLETION SCHEDULE:

(a) Delivery Period / Contract Period: Delivery/contract period from the date of PO placement shall be as tabulated below:

Details Yard	Glass Windows
16101	PO + 06 months
16401	PO + 09 months
16402	PO + 14 months
16403	PO + 19 months
16404	PO + 24 months
16405	PO + 29 months
16406	PO + 34 months

(b) The delivery dates mentioned against each line item/service in SAP tender are for indicative purpose.

8. Pricing:

(a) Prices of all items/services shall be quoted for delivery of the items/services to the following destination including Charges towards inland transportation, insurance, and other local costs incidental to the delivery of the Goods/Services.



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Items/services	Delivery/Work Address
Glass Windows	MDL Anik Chembur bond store

- (b) The prices quoted shall remain firm and fixed during the currency of the order / contract unless agreed otherwise by MDL.
- (c) **Price Variation Clause: (For Goods & Services):** Not Applicable

9. WARRANTY/GUARANTEE:

- (a) The equipment / item along with associated auxiliaries/components supplied shall be warranted / guaranteed for satisfactory Performance for the period of twenty (20) months from the date of delivery of equipment or 12 months after planned delivery of the ship whichever is later.

The tentative planned delivery of ships are as follows:

Yard	Delivery date of ship
16101	Dec 2026
16401	Jul 2027
16402	Dec 2027
16403	May 2028
16404	Oct 2028
16405	Mar 2029
16406	Aug 2029

- (b) The Supplier cannot absolve their responsibility for warranty of material even though it is inspected by & approved by the inspection authorities.
- (c) If the defects are not remedied within a reasonable/stipulated time, MDL may proceed to rectify the defects at the supplier's risk & cost, but without prejudice to MDL's rights under the contract.
- (d) During the period of warranty / guarantee if any defect noticed in the equipment / item supplied, the supplier/ contractor will have to rectify such defects immediately at no extra cost to MDL.

10. PERFORMANCE SECURITY (EPBG): Separate Performance Security for an amount equal to 5% of single order value (Including taxes, duties) payable in Indian Rupees shall be submitted as per Gem portal.

11. PRESERVATION & PACKING: NA

12. TAXES & DUTIES: To be included in the submitted quote, as per GEM & Govt. guidelines. Custom Duty: Not reimbursable.

13. CONSIGNEE:-

- (a) Material scheduled for delivery are to be delivered at MDL (Anik bond store located in Mumbai)
Note:-In order to avoid inconvenience during the delivery of material, it is advisable for supplier to depute their representative in their own interest to coordinate the activities between the transporter, and MDL stores.
- (b) Following document should be submitted along with material:
- PO copy & subsequent amendments issued to it, if any.
 - Inspection Release Note (IRN) issued by nominated inspection officer.
 - Delivery Challans clearly indicating MDL Purchase Order No, Inspection Note Details and Packing List co-relating the items in the inspection report.
 - Copy of Warranty Certificate, Preservation Certificate etc.
 - Technical documentation, if applicable.
 - E-Way bill (if applicable) details are to be submitted during the delivery of the items.
- (c) Unloading of the equipment/ items will be arranged by MDL. In case of delivery of Large/ Bulky/ Heavy consignments, supplier is required to give 2 to 4 day's advance intimation to MDL clearly indicating approx. dimensions and weight of consignments for arranging fork lift/crane for unloading.



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14. INSPECTION:

Binding Drawing & QAP Approval: As per SOTR cl nos 10 page nos 5.

For Goods: As per TSP cl nos 11 page nos 5 –**ABS**. Inspection Charges to be borne by Vendor.

Receipt Inspection:- MDL & CGPRT (Mbi).

Other general conditions related to inspection of material are as under:

- (a) The decision of the Inspecting Authority or their representatives, as the case may be, on any question of the intent, meaning and the scope of Specifications / Standards shall be final, conclusive and binding on the Bidder/ Supplier / Contractor.
- (b) **For Indian Bidders, the Third Party Inspection (TPI) charges shall be borne by Vendor. These charges shall be included in bidder's quote.**
- (c) The testing charges for samples should be borne by the supplier and this should be made clear at the enquiry stage itself to avoid claims at a later date/or effect on his position in comparative statement of offers. Any special testing involving financial implications shall be settled prior to placement of the order and such cost should form part of the evaluation.
- (d) **Receipt Inspection:** MDL & CGPRT(Mbi) shall carry out necessary inspection of the items on receipt in the MDL on the basis of appropriate MDL Inspection system requirements & the Inspection documents submitted by suppliers. Any objection raised by MDL inspection team against quality of material or workmanship shall be satisfactorily corrected by the supplier at his expenses including replacement as may be required within shortest possible time within 30 days. Items damaged during transit shall also be rectified or replaced by the supplier within shortest possible time.
- (e) **Rejection of the material:** Any portion of the equipment found defective/rejected, the supplier shall collect the same at his cost from the MDL Yard, all incidental charges being born by supplier, (inclusive of custom duty, if payable), within 30 days from the date of intimation to the supplier of such rejection. The MDL reserves the rights to dispose-off the rejected item at the end of a total period of 90 days in any manner, to the best advantage to the MDL & recover storage charges & any consequential damages, from sale proceeds of such disposal.

15. PAYMENT TERMS:

Main Equipment, OBS, Installation material

- (i) On receipt of Invoice, 95 % of Payment shall be made within 15 days from generation of Consignee Receipt & Acceptance Certificate(CRAC) of material and as reduced by any deductibles and / or the amount leviable towards liquidated damages, if any plus 100% taxes, duties etc. as applicable.
- (ii) Payment of the balance of the value of the supplies may be payable and as reduced by any deductibles and / or the amount leviable towards liquidated damages, if any, on submission & confirmation of PS of equivalent amount valid up to warranty period plus 60 days.

16. Exchange Rate Variation:NA

17. INTEGRITY PACT (IP): The Integrity pact essentially envisages the agreement between prospective vendors / bidders & buyers committing the person/officials of both the parties not to exercise any corrupt influence on any aspects of the contract. Only those vendors/bidders who enter into such an integrity pact with the buyer would be competent to participate in the bid. The format of integrity Pact is enclosed with tender documents. IP shall be submitted on plain paper.

The 'Integrity pact' dully filled as per enclosed format to be submitted along with the offer. Each page of Integrity Pact shall be duly signed by the bidder. In case of non-submission of Integrity Pact by the bidders, duly signed on each page, with Part-I of the bid, shall render the bid liable for rejection.



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The original IP to be submitted or couriered to MDL within 15 days after tender closing date. Address: DGM/PE(C-CGP), 5th Floor, New Service Block, North Yard, Mazagon Dock Shipbuilders Limited, Shipbuilding Division, Dock Yard Road, Mumbai 400010, Maharashtra, in sealed envelope super scribing Tender Enquiry No. and Due date. The scanned image of IP shall be uploaded at Part-I tender stage.

INDEPENDENT EXTERNAL MONITORS (IEM):

Presently the panel consisting of the following Independent External Monitors (IEMs) has been appointed by MDL, in terms of Integrity Pact (IP) which forms part of MDL Tenders / Contracts.

- i) Shri M.N.Krishnamurthy, IPS (Retd.)
Email ID: krishnamurthymn19@gmail.com
- ii) Shri Deepak Kashyap, IRTS (Retd.)
Email id : deepakkashyapnd02@gmail.com

This panel is authorized to examine / consider all references made to it under this tender / contract. The bidder(s), in case of any dispute(s) / complaint(s) pertaining to this tender falling under provisions of Integrity Pact may raise the same directly with the IEMs on the panel viz Shri M.N.Krishnamurthy, IPS(Retd.) Email ID: krishnamurthymn19@gmail.com; Shri Deepak Kashyap, IRTS (Retd) Email ID : deepakkashyapnd02@gmail.com.

18. REVERSE AUCTION:

- (a) MDL reserves the right to extend, reschedule, postpone, suspend/pause, resume and extend the Reverse Auction, or cancel the Reverse Auction process at any time, before ordering, without assigning any reason, with intimation to bidders.
- (b) If the lowest price received during ERA is unreasonable or it is unacceptable on ground of being too high when compared with estimated price, MDL reserves the right to seek justification of the price from lowest bidder.
- (c) If the price is not considered reasonable, MDL may not accept such bid and can go for another tender process. MDL reserves the right to cancel the tender cum RA process.

19. CONTACT DETAILS FOR QUERIES: In case of any clarifications regarding tender condition/specification, bidders are requested to contact the following person, before the closing date of the tender.

Design Dept.	Mr. Vinit Wagh, DGM/PE(D-CGP)	+91 22 2376 3017	vswagh@mazdock.com
	Mr. Kiran Rajput, CM (SB-Design - Outfit)	+91 22 2376 3368	krajput@mazdock.com
Commercial Dept.	Mr. D S Chavan, DGM /PE(C-CGP)	+91 22 2376 2782	dschavan@mazdock.com
	Ms Shipon Sarkar, M(C-CGP)	+91 22 2376 2765	sssarkar@mazdock.com

20. We look forward to receive your most competitive and reasonable offer against this tender.

Yours faithfully,

For MAZAGON DOCK SHIPBUILDERS LIMITED



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Format for Contact Details- Annexure II

ENCLOSURE TO MDL Tender No:	
Name of Bidder:	
Address:	
Contact Number:	
email id:	
Details of Authorised Representatives; (Three Levels)	
1	Name:
	Designation
	Direct Landline Number:
	Mobile Number:
	Email id:
2	Name:
	Designation
	Direct Landline Number:
	Mobile Number:
	Email id:
3	Name:
	Designation
	Direct Landline Number:
	Mobile Number:
	Email id:



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ANNEXURE-C-1

**ACTUAL LOCAL CONTENT CERTIFICATE
(Tender value Less than Rs 10 Crores)**

Note 1: This certificate shall be submitted by the successful bidder post execution of the contract.

LOCAL CONTENT DECLARATION (post execution of contract / PO) BY CHIEF FINANCIAL OFFICER OR OTHER LEGALLY RESPONSIBLE PERSON NOMINATED IN WRITING BY THE CHIEF EXECUTIVE OR SENIOR MEMBER/PERSON WITH MANAGEMENT RESPONSIBILITY (CORPORATION, PARTNERSHIP OR INDIVIDUAL)

IN RESPECT OF CONTRACT No./ PO No.....
ISSUED BY: (Name of Firm):.....

NB: The obligation to complete, duly sign and submit this declaration cannot be transferred to an external authorized representative, auditor or any other third party acting on behalf of the bidder.

I, the undersigned, (full names),
do hereby declare, in my capacity as
of(name of bidder entity),
that:

- (a) The facts contained herein are within my own personal knowledge.
(b) My/our company had declared the local content at the time of tender as under

Tender Item Sr No	Local content calculated as above %	Location of local value addition

- (c) My / our company has completed the above referred contract and the actual local content of the delivered item/s calculated using the definition in the declaration given at the time of Bid is as under:

Tender Item Sr No	Declared minimum Local content at the time of bidding (%)	Achieved Local content of delivered items (%)

NB: Local content percentage shall strictly be declared item wise or tender wise as was declared at the time of bid / tender.

- (d) I accept that the Procurement Authority / Institution / MDL / Nodal Ministry has the right to request that the local content be verified in terms of the requirements of revised Public Procurement (preference to Make in India) Order 2017 dated 16.09.2020 and I shall furnish the document / information on demand. Failure on my part to furnish the data will be treated as false declaration as per PPP MII Order 2017. I undertake to retain the relevant documents for 7 years from date of execution.

- (e) I understand that the submission of incorrect data, or data that are not verifiable as described in revised Public Procurement (preference to Make in India) Order 2017, may result in the Procurement Authority / Nodal Ministry / MDL imposing any or all of the remedies as provided for in Clause 9 of the Revised Public Procurement (preference to Make in India) Order 2017 dated 16.09.2020.

SIGNATURE: _____

DATE: _____

Stamp / Seal of the company



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Annexure-B-1

**DECLARATION CERTIFICATE FOR LOCAL CONTENT
(Tender value Less than Rs 10 Crores)**

This declaration must form part of all tenders & it contains general information and serves as a declaration form for all bidders. (Before completing this declaration, bidders must study the General Conditions, Definitions, Govt. Directives applicable in respect of Local Content & prescribed tender conditions).

LOCAL CONTENT DECLARATION BY CHIEF FINANCIAL OFFICER OR OTHER LEGALLY RESPONSIBLE PERSON NOMINATED IN WRITING BY CHIEF EXECUTIVE OR SENIOR MEMBER/PERSON WITH MANAGEMENT RESPONSIBILITY (CORPORATION, PARTNERSHIP OR INDIVIDUAL)

IN RESPECT OF BID/ TENDER No:

ISSUED BY (Name of Firm):

NB: The obligation to complete, duly sign and submit this declaration cannot be transferred to an external authorized representative, auditor or any other third party acting on behalf of the bidder.

I, the undersigned, (full names),

do hereby declare, in my capacity as

.....(name of bidder entity), the following:

- (a) The facts contained herein are within my own personal knowledge.
- (b) I have read and understood the requirement of local content (LC) and same is specified as percentage calculated in accordance with the definition provided at clause 2 of revised Public Procurement (preference to Make in India) Order 2017

“Local content” as per above order means the amount of value added in India which shall be the total value of items procured (excluding net domestic indirect taxes) minus the value of imported content in the item (including all customs duties) as a proportion of the total value in percent.”

- (c) I have satisfied myself that the goods/services/works to be delivered in terms of the above specified bid comply with the local content requirements as specified in the tender for ‘Class-I Local Supplier’ / ‘Class-II Local Supplier’, and as above.

(d)

i) I seek benefits against the following policy only:

1) PPP MSE Order 2012

2) PPP MII 2017



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(e) The local content calculated using the definition given above are as under:

Tender Item Sr. No.	Local content calculated as above %	Location of local value addition

Attach separate sheet duly signed if the space not sufficient.

NB: Local content percentage shall be declared item wise or tender wise strictly as per the terms of the tender.

(f) I accept that the Procurement Authority / Institution / MDL / Nodal Ministry has the right to request that the local content be verified in terms of the requirements of revised Public Procurement (preference to Make in India) Order 2017 dated 19.07.2024 and I shall furnish the document / information on demand. Failure on my part to furnish the data will be treated as false declaration as per PPP MII Order 2017. In case of contract being awarded, I undertake to retain the relevant documents for 7 years from date of execution.

(g) I understand that the submission of incorrect data, or data that are not verifiable as described in revised Public Procurement (preference to Make in India) Order 2017, may result in the Procurement Authority / Nodal Ministry / MDL imposing any or all of the remedies as provided for in Clause 9 of the Revised Public Procurement (preference to Make in India) Order 2017 dated 19.07.2024.

SIGNATURE: _____

DATE: _____

Seal / Stamp of Bidders

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Integrity Pact (IP) Format

Mazagon Dock Shipbuilders Limited (MDL) hereinafter referred to as "**The Principal/Buyer**"

And.....hereinafter referred to as "**The Bidder/ Contractor**"

Preamble

The Principal/Buyer intends to award, under laid down organizational procedures, contract/s forThe Principal/Buyer values full compliance with all relevant laws of the land rules, regulations, economic use of resources and of fairness / transparency in its relations with its Bidder(s) and /or Contractor(s). In order to achieve these goals, the Principal/Buyer will appoint an Independent External Monitor (IEM), who will monitor the tender process and the execution of the contract for compliance with the principles mentioned above.

Section 1 - Commitments of the Principal/Buyer:

(1)	The Principal/Buyer commits itself to take all measures necessary to prevent corruption and to observe the following principles:
a)	No employee of the Principal/Buyer, personally or through family members, will in connection with the tender for, or the execution of a contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.
b)	The Principal/Buyer will during the tender process treat all Bidder(s) with equity and reason. The Principal/Buyer will in particular, before and during the tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential/additional information through which the Bidder(s) could obtain an advantage in relation to the tender process or the contract execution.
c)	The Principal/Buyer will exclude from the process all known prejudiced persons.
d)	The Principal/Buyer undertakes to scrupulously follow the tender containing Standard Terms & Conditions (STAC) and General Terms & Conditions (GT&C) in respect of procurement contracts for goods, services and civil works.
(2)	If the Principal/Buyer obtains information on the conduct of any of its employees which is a criminal offence under the relevant Anti Corruption Laws of India, or if there be a substantive suspicion in this regard, the Principal/Buyer will inform the Chief Vigilance Officer, MDL and in addition can initiate disciplinary actions.

Section 2 - Commitments of the Bidder(s)/Contractor(s):

(1)	The Bidder(s)/Contractor(s) commit himself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the tender process and during the contract execution.
a)	The Bidder(s)/Contractor(s) will not, directly or through any other persons or firm, offer promise or give to any of the Principal/Buyer's employees involved in the tender process or the execution of the contract or to any third person any material or other benefit which he/she is not legally entitled to, in order to obtain in exchange any advantage or any kind whatsoever during the tender process or during the execution of the contract.
b)	The Bidder(s)/Contractor(s) will not enter with other Bidders into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.
c)	The Bidder(s)/Contractor(s) will not commit any offence under the relevant Anti-Corruption Laws of India; further the Bidder(s)/Contractor(s) will not use improperly, for purposes of competition or personal gain, or pass on to other, any information or document provided by the Principal/Buyer as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.



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	d)	The Bidder(s)/Contractor(s) of foreign origin shall disclose the name and address of the Agents/representatives in India, if any. Similarly, the Bidder(s)/Contractor(s) of Indian Nationality shall furnish the name and address of the foreign principals, if any. All payments made to the Indian Agent/representative have to be in Indian Rupees only. Further details as mentioned in the "Guidelines of Indian Agents of Foreign suppliers" shall be disclosed by the Bidders(s)/Contractor(s). Copy of the "Guidelines on Indian Agents of Foreign Suppliers" as annexed and marked as Annexure-A.
	e)	The Bidder(s)/Contractor(s) will when presenting his bid, disclose any and all payments he has made, is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract.
	f)	The Bidder (s)/Contractor(s), their agents, representatives shall not do such things so as to interfere with the procedures laid down in the Principal/Buyer's tender containing the Standard Terms and Conditions (STAC) and General Terms and Conditions (GT&C) in respect of procurement contracts for goods, services and civil works.
	g)	The Bidder commits to refrain from giving any complaint directly or through any other manner without supporting it with full and verifiable facts.
(2)		The Bidder(s)/Contractor(s) will not instigate third persons to commit offences outlines above or be an accessory to such offences.

Section 3 - Disqualification from tender process and exclusion from future contracts:

		If the Bidder(s)/Contractor(s) before contract award or during execution of Contract has committed a transgression through a violation of Section 2, above or in any other form such as to put his reliability or credibility as Bidder(s) in question, the Principal/Buyer is entitled to disqualify the Bidder(s)/Contractor(s) from the tender process or to terminate the contract, if already signed for such reason, as per the procedure mentioned in the "Guidelines on Banning of business dealings" Copy of the "Guidelines on Banning of business dealings" is annexed and marked as Annexure-B.
	1)	If the Bidder(s)/Contractor(s) has committed a transgression through a violation of Section 2 such as to put his reliability or credibility into question, the Principal/Buyer is entitled also to exclude the Bidder(s)/Contractor(s) from future contract award processes. The imposition and duration of the exclusion will be determined by the severity of the transgression. The severity will be determined by the circumstances of the case, in particular the number of transgressions, the position of the transgressors within the company hierarchy of the Bidder(s) and the amount of the damage. The exclusion will be imposed for a minimum of <u>six</u> months and maximum of <u>five</u> years, which may be further extended at the discretion of the Principal/Buyer.
	2)	A transgression is considered to have occurred, if the Principal/Buyer after due consideration of the available evidence, concludes that no reasonable doubt is possible.
	3)	The Bidder (s) accepts and undertakes to respect and uphold the Principal/Buyer's absolute right to resort to and impose such exclusion and further accepts and undertakes not to challenge or question such exclusion on any ground, including the lack of any hearing before the decision to resort to such exclusion is taken. This undertaking is given freely and after obtaining legal advice.
	4)	If the Bidder(s)/Contractor(s) can prove that he has restored/ recouped the damage caused by him and has installed a suitable corruption prevention system, the Principal/Buyer may revoke the exclusion prematurely.

Section 4 – Sanctions for Violation:

(1)	Any breach of the aforesaid provisions by the Bidder or any one employed by him or acting
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	on his behalf (whether with or without the knowledge of the Bidder) or the commission of any offence by the Bidder or any one employed by him or acting on his behalf, as defined in Chapter IX of the Indian Penal Code, 1860 or the Prevention of Corruption Act 1988 or any other Act enacted for the prevention of corruption shall entitle the Principal/Buyer to take all or any one of the following actions, wherever required –
a)	To immediately call off the pre-contract negotiations without assigning any reason or giving any compensation to the Bidder. However, the proceedings with the other Bidder (s) would continue.
b)	The Earnest Money Deposit/Security Deposit/Performance Bond shall stand forfeited either fully or partially, as decided by the Principal/Buyer, and the Principal/Buyer shall not be required to assign any reason there for.
c)	To immediately cancel the contract, if already signed, without giving any compensation to the Bidder.
d)	To recover all sums already paid by the Principal/Buyer, in case of an Indian Bidder with interest thereon at 2% higher than the prevailing Base Rate of SBI, and in case of a Bidder from a country other than India with interest thereon at 2% higher than the LIBOR. If any outstanding payment is due to the Bidder from the Buyer in connection with any other contract for any other Defence stores, such outstanding payment could also be utilized to recover the aforesaid sum and interest.
e)	To en-cash the advance Bank Guarantee and Performance Bond/Warranty bond, if furnished by the Bidder, in order to recover the payments, already made by the Principal/Buyer, along with interest.
f)	To cancel all or any other contracts with the Bidder.
g)	To debar the Bidder from entering into any bid from Principal/Buyer for a minimum period of five years, which may be further extended at the discretion of the Principal/Buyer.
h)	To recover all sums paid in violation of this Pact by Bidder(s) to any middleman or agent or broker with a view to securing the contract.
i)	If the Bidder or any employee of the Bidder or any person acting on behalf of the Bidder, either directly or indirectly, is closely related to any of the officers of the Buyer, or alternatively, if any close relative of an officer of the Buyer has financial interest/stake in the Bidder's firm, the same shall be disclosed by the Bidder at the time of filing of tender. Any failure to disclose the interest involved shall entitle the Buyer to rescind the contract without payment of any compensation to the Bidder.
	The term 'close relative' for this purpose would mean spouse whether residing with the Principal/Buyer's employee/employees or not, but not include a spouse separated from the Principal/Buyer's employee/employees by a decree or order of a competent court; son or daughter or step son or step daughter and wholly dependent upon Principal/Buyer's employee/employees, but does not include a child or step child who is no longer in any way dependent upon the Principal/Buyer's employee/employees or of whose custody the Principal/Buyer's employee/employees has been deprived of by or under any law; any other person related, whether by blood or marriage, to the Principal/Buyer's employee/employees or to the Principal/Buyer's employee/employees wife or husband and wholly dependent upon Principal/Buyer's employee/employees.
j)	The Bidder shall not lend to or borrow any money from or enter into any monetary dealings or transactions, directly or indirectly, with any employee of the Principal/Buyer, and if he does so, the Principal/Buyer shall be entitled forthwith to rescind the contract and all other contracts with the Bidder. The Bidder shall be liable to pay compensation for any loss or damage to the Principal/Buyer resulting from such rescission and the Principal/Buyer shall be entitled to deduct the amount so payable from the money(s) due to the Bidder.
k)	In cases where Irrevocable Letters of Credit have been received in respect of any contract signed by the Principal/Buyer with the Bidder, the same shall not be opened.
(2)	The decision of the Principal/Buyer to the effect that a breach of the provisions of this Integrity Pact has been committed by the Bidder shall be final and binding on the Bidder, however, the same Bidder can approach the Monitor(s) appointed for the purposes of this Pact.



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Section 5 - Previous Transgression:

(1)	The Bidder declares that no previous transgressions occurred in the last three years with any other company in any country conforming to the anti-corruption approach or with any other public sector enterprise in India that could justify his exclusion from the tender process.
(2)	If the bidder makes incorrect statement on this subject, he can be disqualified from the tender process or further action can be taken.

Section 6 - Equal treatment of all Bidders/Contractor(s)/Subcontractors:

(1)	The Bidder(s)/Contractor(s) undertake(s) to demand from all subcontractors a commitment in conformity with this integrity Pact, and to submit it to the Principal before contract signing.
(2)	The Principal/Buyer will enter into agreements with identical conditions as this one with all bidders, contractors and subcontractors.
(3)	The Principal/Buyer will disqualify from the tender process all bidders who do not sign this Pact or violate its provisions.

Section 7 - Criminal charges against violation Bidder(s)/Contractor(s)/ Subcontractor(s):

(1)	If the Principal/Buyer obtains knowledge of conduct of a Bidder, Contractor or subcontractor, or of an employee or a representative or an associate of a Bidder, Contractor of subcontractor which constitutes corruption or if the Principal has substantive suspicion in this regard, the Principal/Buyer will inform the same to the Chief Vigilance Officer, MDL.
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Section 8 - Independent External Monitor/Monitors:

(1)	The Principal/Buyer appoints competent and credible independent External Monitor for this Pact. The task of the Monitor is to review independently and objectively whether and to what extent the parties comply with the obligations under this agreement.
(2)	The Monitor is not subject to instructions by the representatives of the parties and performs his functions neutrally and independently. He reports to the Chairman & Managing Director of the Principal/Buyer.
(3)	The Bidder(s)/Contractor(s) accepts that the Monitor has the right to access without restriction to all project documentation of the Principal/Buyer including that provided by the Contractor. The Contractor will also grant the Monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his project documentation. The same is applicable to Subcontractors. The Monitor is under contractual obligation to treat the information and documents of the Bidder(s)/Contractor(s)/Subcontractor(s) with confidentiality.
(4)	The Principal/Buyer will provide to the Monitor sufficient information about all meetings among the parties related to the Project provided such meetings could have an impact on the contractual relations, between the Principal/Buyer and the Contractor. The parties offer to the Monitor the option to participate in such meetings.
(5)	As soon as the Monitor notices, or believes to notice, a violation of this agreement, he will so inform the Management of the Principal/Buyer and request the Management to discontinue or take corrective action, or to take other relevant action. The Monitor can in this regard submit non-binding recommendations. Beyond this, the Monitor has no right to demand from the parties that they act in a specific manner, refrain from action or tolerate action. However, the Monitor shall give an opportunity to the Bidder(s)/Contractor(s) to present its case before making its recommendation to the Principal/Buyer.
(6)	The Monitor will submit a written report to the Chairman & Managing Director of the Principal within 8 to 10 weeks from the date of reference or intimation to him by the Principal/Buyer and, should the occasion arise, submit proposals for correcting problematic situations.
(7)	Monitor shall be entitle to compensation on the same terms as being extended to / provided to Independent Directors on the Board of Principal/Buyer.
(8)	If the Monitor has reported to the Chairman & Managing Director of the Principal, a substantiated suspicion of an offence under relevant Anti-Corruption Laws of India and the



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	Chairman & Managing Director of the Principal/Buyer has not, within the reasonable time taken visible action to proceed against such offence or reported it to the Chief Vigilance Officer, the Monitor may also transmit this information directly to the Central Vigilance Commissioner, Government of India.
(9)	The word 'Monitor' would include both singular and plural.

Section 9 - Pact Duration:

	This pact begins when both parties have legally signed it. It expires for the Contractor 12 months after the last payment under the contract and for all other Bidders 06 months after the contract has been awarded. If any claim is made / lodged during this time, the same shall be binding and continue to be valid despite the lapse of this pact as specified above unless it is discharged / determined by Chairman & Managing Director of the Principal/Buyer.
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Section 10 - Other provisions:

(1)	This agreement is subject to Indian Law, place of performance and jurisdiction is the Registered Office of the Principal/Buyer, i.e. Mumbai (For MDL). The Arbitration clauses provided in the main tender document/ contract shall not be applicable for any issue/dispute arising under this Integrity pact.
(2)	Changes and supplements as well as termination notices need to be made in writing. Side agreements have not been made.
(3)	If the Contractor is a partnership or a consortium, this agreement must be signed by all partners or consortium members.
(4)	Should one or several provisions of this agreement turn out to be invalid, the remainder of this agreement remains valid. In this case, the parties will strive to come to an agreement to their original intentions.

Section 11 – Fall Clause: #

“The Bidder undertakes that it has not supplied/is not supplying similar products/ systems or subsystems at a price lower than that offered in the present bid in respect of any other Ministry/Department of the Government of India or PSU and if it is found at any stage that similar product/systems or sub systems was supplied by the Bidder to any other Ministry/Department of the Government of India or a PSU at a lower price, then that very price, with due allowance of elapsed time, will be applicable to the present case and the difference in the cost would be refunded by the Bidder to the Principal/Buyer, if the contract has already been concluded.”

For & on behalf of
Mazagon Dockshipbuilders Limited

(Office Seal)

Place_____

Date_____

Witness 1:

(Name & Address)

For & on behalf of

Bidder/Contractor

(Office Seal)

Witness 2:

(Name & Address)



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Annexure-A

GUIDELINES FOR INDIAN AGENTS OF FOREIGN SUPPLIERS

1.0	There shall be compulsory registration of agents for all Global (Open) Tender and Limited Tender. An agent who is not registered with MDL shall apply for registration.
1.1	An agent shall represent only one Foreign Supplier and not represent two suppliers or quote on their behalf in the same tender.
	However, either the Indian Agent on behalf of the Foreign Suppliers (also includes foreign manufacturers) or the Foreign Suppliers (also includes foreign manufacturers) directly could bid in a tender, but not both. In cases where an agent participates in a tender on behalf of one manufacturer, shall not quote on behalf of another manufacturer along with the first Manufacturer in a subsequent/parallel tender for the same item.
1.2	Registered agents will file an authenticated Photostat copy duly attested by a Notary Public/Original certificate of the principal confirming the agency agreement and giving the status being enjoyed by the agent and the commission/remuneration/salary/ retainer ship being paid by the principal to the agent before the placement of order by MDL.
1.3	Wherever the Indian representatives have communicated on behalf of their principals and the foreign parties have stated that they are not paying any commission to the Indian agents, and the Indian representative is working on the basis of salary or as retainer, a written declaration to this effect should be submitted by the party (i.e. Principal) before finalizing the order.

2.0 DISCLOSURE OF PARTICULARS OF AGENTS/ REPRESENTATIVES IN INDIA, IF ANY.

2.1	Tenderers of Foreign nationality shall furnish the following details in their offer:	
	2.1.1	The name and address of the agents/representatives in India, if any and the extent of authorization and authority given to commit the Principals. In case the agent/representative be a foreign Company, it shall be confirmed whether it is real substantial Company and details of the same shall be furnished.
	2.1.2	The amount of commission/remuneration included in the quoted price(s) for such agents/representatives in India.
	2.1.3	Confirmation of the Tenderer that the commission/ remuneration if any, payable to his agents/ representatives in India, may be paid by MDL in Indian Rupees only.
2.2	Tenderers of Indian Nationality shall furnish the following details in their offers:	
	2.2.1	The name and address of the foreign principals indicating their nationality as well as their status, i.e, whether manufacturer or agents of manufacturer holding the Letter of Authority of the Principal specifically authorizing the agent to make an offer in India in response to tender either directly or through the agents/representatives.
	2.2.2	The amount of commission/remuneration included in the price (s) quoted by the Tenderer for himself.
	2.2.3	Confirmation of the foreign principals of the Tenderer that the commission/remuneration, if any, reserved for the Tenderer in the quoted price (s), may be paid by MDL in India in equivalent Indian Rupees on satisfactory completion of the Project or supplies of Stores and Spares in case of operation items .
2.3	In either case, in the event of contract materializing, the terms of payment will provide for payment of the commission /remuneration, if any payable to the agents/representatives in India in Indian Rupees on expiry of 90 days after the discharge of the obligations under the contract.	
2.4	Failure to furnish correct and detailed information as called for in paragraph-2.0 above will render the concerned tender liable to rejection or in the event of a contract materializing, the same liable to termination by MDL. Besides this there would be a penalty of banning business dealings with MDL or damage or payment of a named sum.	



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Annexure-B

GUIDELINES ON BANNING OF BUSINESS DEALINGS
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Sr.	Description
1.	Introduction
2.	Scope
3.	Definitions
4.	Initiation of Banning / Suspension
5.	Suspension of Business Dealings
6.	Ground on which Banning of Business Dealing can be initiated
7.	Banning of Business Dealings
8.	Removal from List of Approved Agencies-Suppliers/ Contractors etc.
9.	Procedure for issuing Show-cause Notice
10.	Appeal against the Decision of the Competent Authority
11.	Review of the Decision by the Competent Authority
12.	Circulation of the names of Agencies with whom Business Dealings have been banned

1. Introduction

1.1	Mazagon Dock Shipbuilders Limited (MDL), being a Public Sector Enterprise and 'State', within the meaning of Article 12 of Constitution of India, has to ensure preservation of rights enshrined in Chapter III of the Constitution. MDL as also to safeguard its commercial interests. MDL deals with Agencies, who have a very high degree of integrity, commitments and sincerity towards the work undertaken. It is not in the interest of MDL to deal with Agencies who commit deception, fraud or other misconduct in the execution of contracts awarded / orders issued to them. In order to ensure compliance with the constitutional mandate, it is incumbent on MDL to observe principles of natural justice before banning the business dealings with any Agency.
1.2	Since banning of business dealings involves civil consequences for an Agency concerned, it is incumbent that adequate opportunity of hearing is provided and the explanation, if tendered, is considered before passing any order in this regard keeping in view the facts and circumstances of the case.

2. Scope

2.1	MDL reserves its rights to remove from list of approved suppliers / contractors or to ban business dealings if any Agency has been found to have committed misconduct and also to suspend business dealings pending investigation.
2.2	Similarly, in case of sale of material there is a clause to deal with the Agencies / customers / buyers, who indulge in lifting of material in unauthorized manner.
2.3	However, absence of such a clause does not in any way restrict the right of MDL to take action / decision under these guidelines in appropriate cases.
2.4	The procedure of (i) Removal of Agency from the List of approved suppliers / contractors; (ii) Suspension and (iii) Banning of Business Dealing with Agencies, has been laid down in these guidelines.
2.5	These guidelines apply to all the Divisions/Yards of MDL.
2.6	It is clarified that these guidelines do not deal with the decision of the Management not to entertain any particular Agency due to its poor / inadequate performance or for any other reason.
2.7	The banning shall be with prospective effect, i.e., future business dealings.

3. Definitions

In these Guidelines, unless the context otherwise requires:

i)	'Bidder / Contractor / Supplier / Purchaser / Customer' shall mean and include a public limited company or a private limited company, a firm whether registered or not, an individual, a cooperative society or an association or a group of persons engaged in any commerce, trade, industry, etc. 'Bidder / Contractor / Supplier / Purchaser / Customer' in the context of these
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	guidelines is indicated as 'Agency'.
ii)	'Inter-connected Agency' shall mean two or more companies having any of the following features:
a)	If one is a subsidiary of the other.
b)	If the Director(s), Partner(s), Manager(s) or Representative(s) are common;
c)	If management is common;
d)	If one owns or controls the other in any manner;
iii)	'Competent Authority' and 'Appellate Authority' shall mean the following:
a)	Functional Director shall be the 'Competent Authority' for the purpose of these guidelines. CMD, MDL shall be the 'Appellate Authority'.
b)	CMD, MDL shall have overall power to take suo-moto action on any information available or received by him and pass such order(s) as he may think appropriate, including modifying the order(s) passed by any authority under these guidelines.
iv)	'Investigating Department' shall mean any Department or Unit investigating into the conduct of the Agency and shall include the Vigilance Department, Central Bureau of Investigation, the State Police or any other department set up by the Central or State Government having powers to investigate.
v)	'List of approved Agencies – Bidder / Contractors / Suppliers / Purchasers / Customers shall mean and include list of approved / registered Agencies - Bidder / Contractors / Suppliers / Purchasers / Customers, etc.

4. Initiation of Banning / Suspension

	Action for banning / suspension business dealings with any Agency should be initiated by the department having business dealings with them after noticing the irregularities or misconduct on their part. Besides the concerned department, Vigilance Department may also be competent to initiate such action.
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5. Suspension of Business Dealings

5.1	If the conduct of any Agency dealing with MDL is under investigation by any department, the Competent Authority may consider whether the allegations under investigation are of a serious nature and whether pending investigation, it would be advisable to continue business dealing with the Agency. If the Competent Authority, after consideration of the matter including the recommendation of the Investigating Department, if any, decides that it would not be in the interest to continue business dealings pending investigation, it may suspend business dealings with the Agency. The order to this effect may indicate a brief of the charges under investigation. If it is decided that inter-connected Agencies would also come within the ambit of the order of suspension, the same should be specifically stated in the order. The order of suspension would operate for a period not more than six months and may be communicated to the Agency as also to the Investigating Department. The Investigating Department may ensure that their investigation is completed and whole process of final order is over within such period.
5.2	The order of suspension shall be communicated to all Commercial Departmental Heads. During the period of suspension, no business dealing may be held with the Agency.
5.3	As far as possible, the existing contract(s) with the Agency may continue unless the Competent Authority, having regard to the circumstances of the case, decides otherwise.
5.4	If the gravity of the misconduct under investigation is very serious and it would not be in the interest of MDL, as a whole, to deal with such an Agency pending investigation, the Competent Authority may order suspension of business dealing with Agency and send his recommendation to Chief Vigilance Officer (CVO), MDL along with the material available, copy of which may be issued to the Agency concerned with intimation to CVO MDL. Such an order would operate for a period of six months from the date of issue.
5.5	If the Agency concerned asks for detailed reasons of suspension, the Agency may be informed that its conduct is under investigation. It is not necessary to enter into correspondence or argument with the Agency at this stage.
5.6	It is not necessary to give any show-cause notice or personal hearing to the Agency before issuing the order of suspension. However, if investigations are not complete in six months' time, the Competent Authority may extend the period of suspension by another three months, during which period the investigations must be completed.



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6. Ground on which Banning of Business Dealings can be initiated

6.1	If the security consideration, including questions of loyalty of the Agency to the State, so warrants;
6.2	If the Director / Owner of the Agency, proprietor or partner of the firm, is convicted by a Court of Law for offences involving moral turpitude in relation to its business dealings with the Government or any other public sector enterprises or MDL, during the last five years;
6.3	If there is strong justification for believing that the Directors, Proprietors, Partners, owner of the Agency have been guilty of malpractices such as bribery, corruption, fraud, substitution of tenders, interpolations, etc;
6.4	If the Agency continuously refuses to return / refund the dues of MDL without showing adequate reason and this is not due to any reasonable dispute which would attract proceedings in arbitration or Court of Law;
6.5	If the Agency employs a public servant dismissed / removed or employs a person convicted for an offence involving corruption or abetment of such offence;
6.6	If business dealings with the Agency have been banned/blacklisted by Government Agencies/ Statutory bodies, DGQA, Defence Shipyards, DPSUs or with whom commercial transactions have been suspended for sufficient and justifiable reasons. If the Agency having same promoters/Directors /Partners as the barred/blacklisted Company as at 6.6 above for the duration for which the barring/ blacklisting of sister concern persists.
6.7	If the Agency has resorted to Corrupt, fraudulent practices including misrepresentation of facts; If the agency who had fraudulently dealt with the Company for pecuniary gains or had connived with dealing officers for mutual benefit.
6.8	If the Agency uses intimidation / threatening or brings undue outside pressure on the MDL or its official in acceptance / performances of the job under the contract;
6.9	If the Agency indulges in repeated and / or deliberate use of delay tactics in complying with contractual stipulations;
6.10	Wilful indulgence by the Agency in supplying sub-standard material irrespective of whether pre-dispatch inspection was carried out by MDL or not;
6.11	Based on the findings of the investigation report of CBI / Police against the Agency for malafide / unlawful acts or improper conduct on his part in matters relating to the MDL or even otherwise;
6.12	Established litigant nature of the Agency to derive undue benefit;
6.13	Continued poor performance of the Agency in several contracts;
6.14	If the Agency misuses the premises or facilities of the MDL, forcefully occupies, tampers or damages the Company's properties including land, water resources, forests / trees, etc. If the Agency who knowingly collude to defeat competition with the aim of deriving undeserved profit or gain from doing business with MDL. (Note: The examples given above are only illustrative and not exhaustive. The Competent Authority may decide to ban business dealing for any good and sufficient reason).

7. Banning of Business Dealings

7.1	Decision to ban business dealings with any Agency would apply throughout the Company.
7.2	There will be a Standing Committee to be appointed by the CMD which may include HOD of respective Commercial Section/Capital Works/OTS, HOD (M), rep of Legal Dept. and OIC (SR&R) for processing the cases of "Banning of Business Dealings". The functions of the committee shall, inter-alia include:
	i) To study the report of the Investigating Agency and decide if a prima-facie case for banning exists, if not, send back the case to the Competent Authority.
	ii) To recommend for issue of show-cause notice to the Agency by the concerned department.
	iii) To examine the reply to show-cause notice and call the Agency for personal hearing, if required.
	iv) To submit final recommendation to the Competent Authority for banning or otherwise.
7.3	If the Competent Authority is prima-facie of view that action for banning business dealings with the Agency is called for, a show-cause notice may be issued to the Agency as per



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paragraph 9.1 and an enquiry held accordingly.

8 Removal from List of Approved Agencies - Suppliers / Contractors, etc.

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| 8.1 | If the Competent Authority decides that the charge against the Agency is of a minor nature, it may issue a show-cause notice as to why the name of the Agency should not be removed from the list of approved Agencies - Suppliers / Contractors, etc. |
| 8.2 | The effect of such an order would be that the Agency would not be disqualified from competing in Open Tender Enquiries but LTE may not be given to the Agency concerned. |
| 8.3 | Past performance of the Agency may be taken into account while processing for approval of the Competent Authority for awarding the contract. |

9. Show-cause Notice

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| 9.1 | In case where the Competent Authority decides that action against an Agency is called for, a show-cause notice has to be issued to the Agency. Statement containing the imputation of misconduct or misbehavior may be appended to the show-cause notice and the Agency should be asked to submit within 15 days a written statement in its defence. |
| 9.2 | If the Agency requests for inspection of any relevant document in possession of MDL, necessary facility for inspection of documents may be provided. |
| 9.3 | The Competent Authority may consider and pass an appropriate speaking order:
a) For exonerating the Agency if the charges are not established;
b) For removing the Agency from the list of approved Suppliers / Contractors, etc.
c) For banning the business dealing with the Agency. |
| 9.4 | If it decides to ban business dealings, the period for which the ban would be operative may be mentioned. The order may also mention that the ban would extend to the interconnected Agencies of the Agency. |

10. Appeal against the Decision of the Competent Authority

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| 10.1 | The Agency may file an appeal against the order of the Competent Authority banning business dealing, etc. The appeal shall lie to Appellate Authority. Such an appeal shall be preferred within one month from the date of receipt of the order banning business dealing, etc. |
| 10.2 | Appellate Authority would consider the appeal and pass appropriate order which shall be communicated to the Agency as well as the Competent Authority. |

11. Review of the Decision by the Competent Authority

Any petition / application filed by the Agency concerning the review of the banning order passed originally by Competent Authority under the existing guidelines either before or after filing of appeal before the Appellate Authority or after disposal of appeal by the Appellate Authority, the review petition can be decided by the Appellate Authority upon disclosure of new facts / circumstances or subsequent development necessitating such review. The Competent Authority may refer the same petition to the separate Standing Committee which may be constituted by Appellate Authority for examination and recommendation.

12. Circulation of the names of Agencies with whom Business Dealings have been banned

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| 12.1 | Depending upon the gravity of misconduct established, the Competent Authority may direct HOD (Materials)/OIC (SR&R) to circulate the names of Agency with whom business dealings have been banned, to the Government Departments, other Public Sector Enterprises, etc. for such action as they deem appropriate. |
| 12.2 | If Government Departments or a Public Sector Enterprise request for more information about the Agency with whom business dealings have been banned, a copy of the report of Inquiring Authority together with a copy of the order of the Competent Authority / Appellate Authority may be supplied. |
| 12.3 | If business dealings with any Agency have been banned by the Central or State Government or any other Public Sector Enterprise, MDL may, without any further enquiry or investigation, issue an order banning business dealing with the Agency and its inter-connected Agencies. |



MAZAGON DOCK SHIPBUILDERS LIMITED
(A Govt. Of India Undertaking)

SHIPBUILDING DESIGN OUTFIT
DOCKYARD ROAD, MUMBAI - 400 010

STATEMENT OF TECHNICAL REQUIREMENTS
FOR
TOUGHENED GLASS WINDOW

PROJECT	:	TRAINING SHIP
YARD NOS MDL	:	16101
CLIENT	:	INDIAN COAST GUARD
DOCUMENT NO	:	2046
ICG HQ REFERENCE / APPROVAL	:	SA/0157/01TS/Hull EQPT dated 24 Feb 25
CLASSIFICATION NOTATION	:	+ A1 (E) (Government Service) + AMS NIBS +ACC,FFV1-NS CS-Ready, HELIDK(SRF) by ABS or equivalent of LRS/DNV/GL/BV/IRS/NK

02	ANNEXURE 05 UPDATED AS PER DWG NO 1628-01 REV 04	16 DEC 25	MDL
01	AMENDED AS PER CGHQ LETTER REF SA/0157/01TS/Hull EQPT DATED 24 FEB 25	24 FEB 25	CGHQ
REV	DESCRIPTION	DATE	AUTHORISED BY
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SECTION - I

A. INTRODUCTION			
1.	This General Specifications relate to Design, approval of the equipment by the classification society, Manufacture and Supply of one ship set of Equipment for Project 01 Training Ship (TS) of Indian Coast Guard.		
2.	Project 01 TS consist of Diesel Engine propulsion system comprises of two propulsion plants, each plant consisting of one Diesel Engine driving a Controllable Pitch Propeller and External Fi-Fi pump through single input and twin output Reduction Gearbox and respective shaft line. Each propulsion plant broadly comprises of: - (a) One Diesel Engine of minimum 5000 KW power output. (b) One single input, twin-output Reduction Gearbox with built in thrust block. (c) One set of shafting along with associated components (d) One Controllable Pitch Propeller (e) Propulsion plant support systems (for Diesel engines, Gearboxes, Shafting & CPP) (f) Associated Controls & Monitoring System.		
3.	Class notation for Training Ship is: + A1 (E) (Government Service) + AMS NIBS +ACC, FFV1-NS CS-Ready, HELIDK(SRF) by ABS or equivalent of LRS/DNV/GL/BV/IRS/NK		
4.	The Supplier should submit the quotation based on this General Conditions & Requirements (GCR) and the separate Technical Specifications for Procurement (TSP) of each equipment should there be any discrepancies between the GCR and the Technical specification of each equipment, the technical specification shall prevail.		
5.	The reference list of the equipment fitted in Indian or International Navy / Coast Guard or similar platform such as ocean going vessel, Offshore Platforms and Oil-Rigs to be submitted along with the offer.		
6.	The Year of production of equipment and system to be of latest manufacture (during or after Year 2023). This is to confirm to the current production standards and should have 100% of the defined life at the time of delivery. (Other than permitted running hours during assembly / acceptance trials)		
B. GENERAL CONDITIONS AND REQUIREMENTS			
1.	Subject: - The general conditions and requirements specified in this chapter are intended to meet the functional requirements of a Training platform with integral helicopter capable for operation in oceans environment and performance of all the ICG charter of duties.		
2.	Ship's Basic Particulars: - Project TS-01 class of ships would be Training ships for cadets. Ship's basic particulars, are indicated below: -		
PARTICULARS		REFERENCE DATA	
Ship's dimensions	Length overall (LOA)	107m	
	Beam (water line)	15.2m	
	Draft (deep displacement)	4.02m	
Ship's displacement	Deep displacement	Around 3300 Tones	
Expected ship's life		25 Years	
Operating profile	Continuous slow speed	Below 8 knots	
	Cruising	12 – 15 knots	
	Maximum	20 Knots	
Unrestricted continuous rating of Diesel engine, at 45 degree ambient temperature		Min 5000 KW	



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3.	Reference Environmental Conditions:-			
3.1	The equipment shall be suitable for marine applications and achieve specified performance smoothly under tropical marine conditions.			
3.2	The equipment is to be designed for continuous operation & survival under the environmental conditions specified for ambient conditions as specified table below:-			
	Sr. No	Design Parameter	Value	
	(a)	Air Temperature	Minimum of 5 °C and Maximum of 45 °C	
	(b)	Sea water temperature	32 °C	
	(c)	Relative humidity	90% at 35 °C	
	(d)	Atmospheric pressure	750 mm of Hg column (1000 mbar)	
3.3	Seaway Conditions: Seaway conditions are defined at a sea water temperature of 1 to + 32 Deg. C, Ambient air temperature of 5 to 45 Deg. C and humidity up to 90% at 35 Deg. C. Salinity of water up to 35000 ppm. The equipment shall be capable of efficient and unrestricted operation without any deviation from its normal operating parameters under the seaway conditions, as below:-			
	Operational (up to sea state 7)			
	Roll	Maximum ± 22.5 degree		
	Pitch	Maximum ± 7.5 degree		
	Survival (up to sea state 7)			
	List	Maximum 15 degree from vertical (permanent)		
	Trim	Maximum 05 degree		
3.4	Complement:			
	(a)	Officers	12	
	(b)	Subordinate Officers (SOs)/ Enrolled Personnel (EPs)	95	
	(c)	Training Staff		
		(i) Officers.	08	
		(ii) SOs/Eps	38	
	(d)	Under Trainee officers	70	
		Total	223	
3.5	Propulsion Plant Operating Profile / Modes: The ship is to be available for exploitation for minimum of 190 days in a year. Each shaft is expected to clock a minimum of 3500 running hours per year. Expected ship's life is 25 years. Operational cycle of the ship will be of around 36 months.			
3.6	Service life of ship: The expected service life of ship is 25 years @ 4500 hrs. annual exploitation.			
4.	Ship's Support Systems Supplies: For electrical supplies, in case of different requirements (voltage/frequency, etc.), the equipment supplier shall provide suitable provision (transformer/converter/UPS, etc.).			
	S.No.	SYSTEM	SUPPLIES	REMARKS
	(a)	Electrical	415 V AC @ 50 Hz, 3 phase 230 V AC @ 50 Hz, 1 phase	Any other power requirement shall be met by the equipment supplier.
5.	Noise & Vibration:			
5.1	Design of the equipment along with its associated auxiliaries/accessories/controls and mounting system, should ensure minimal vibration and noise.			



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5.2	All components of the equipment and accessories are to be designed for ensuring resistance to misalignment due to forces of vibration.		
5.3	Suitable flexible hoses, bellows and noise reduction clamps are to be used for associated piping connections with the main equipment/auxiliaries.		
5.4	Specific requirements on Noise & Vibration are to be as per respective equipment Technical Specification for Procurement.		
5.5	Noise and Vibration levels of the equipment shall meet the classification rules and guidelines.		
6.	Noise Levels in Machinery Spaces: Permissible noise levels in machinery spaces are to be in accordance ISO-6954:2000. The noise criteria for the compartments are as follows		
	Sr. No.	Compartments	DB(A)
	I.	Machinery spaces	110
	II.	MCR	75
	III.	Work places	85
	IV.	Non Specific workshops	90
	V.	Bridge and Chartroom	65
	VI.	Radio Rooms	65
	VII.	Cabins	60
	VIII.	Dining Hall/Offices	65
	IX.	Service spaces (galley, pantry)	75
	X.	Normally unoccupied spaces	90
7.	Vibration Isolators (Anti Vibration Mounts)		
7.1	For resiliently mounted equipment, the mounting system shall be capable of attenuating the vibrations of the offered equipment within the limit specified in Technical requirement.		
7.2	The installation and connections of the equipment shall account for the extreme displacements that may occur under loading conditions. Wherever necessary, suitable stops/snubbers shall be provided to prevent excessive motion. Vibration measurements are to be carried out as per ISO 4868(XII)/latest amendment.		
8	Electrical Equipment Requirements:		
8.1	Requirements for electrical equipment (including Motors & Starters) shall confirm its latest revision / equivalent International Standards.		
8.2	IP Rating for Electrical Equipment: IP rating for associated electrical equipment enclosure is IP 44. Specific IP rating to be as per Technical specification requirement.		
9.	Availability/ Reliability/ Redundancy/ Self Sufficiency:		
9.1	Equipment should be robust in design for ensuring high reliability, ease of operation and minimum maintenance.		
10	Binding Drawing & QAP approval:		
10.1	Vendor shall submit the drawings & QAP for approval to ABS within 4 weeks of placement of order. 1 set of drawing & QAP to be submitted to MDL as well for review & comments. MDL shall submit the comments on drawings & QAP if any within 1 week. Vendor shall be completely responsible to get drawings & QAP approved from ABS within stipulated time. Cost for the drawing & QAP approval by designated classification society shall be borne by vendor. Vendor shall also submit 3-D model of equipment in ".stp" format compatible with Aveva Marine to MDL.		



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11	Inspection:															
11.1	All equipment/items to be inspected tested & certified by ABS as per latest rules & regulations. Cost for the inspection shall be borne by Vendor. All inspection report to be submitted along with main equipment.															
11.2	Equipment should be manufactured to the highest quality and equipment should confirm to class requirement.															
11.3	Receipt inspection shall be done by MDL & CGPRT (Mbi) on receipt of material in stores in the presence of OEM rep to verify completeness of the scope of supply and intactness of the supplied equipment. Defective / damaged parts and deficiency, if any, in supply shall be made good by OEM free of cost. OEM shall be intimated the date of receipt inspection.															
12	Documentation:															
12.1	Following documentation/certificates duly signed by surveyors of designated classification society in hard as well as in soft copy to be submitted by vendor along with equipment.															
	<table border="1"><thead><tr><th>S. No</th><th>Type of Documents / Drawings</th><th>Quantity / Yard</th></tr></thead><tbody><tr><td>1.</td><td>As Fitted Class approved Drawings with part list</td><td>7</td></tr><tr><td>2.</td><td>Technical, Operating, Installation, Testing & Maintenance manual</td><td>7</td></tr><tr><td>3.</td><td>Inspection Certificates, inspection reports of inspection agency, certified test reports, FATS reports, material test reports, certificate for dimensional accuracy, Weight Certificates with position of C.G etc</td><td>7</td></tr><tr><td>4.</td><td>Soft copy of all above documents in CD or Pen drive</td><td>7</td></tr></tbody></table>	S. No	Type of Documents / Drawings	Quantity / Yard	1.	As Fitted Class approved Drawings with part list	7	2.	Technical, Operating, Installation, Testing & Maintenance manual	7	3.	Inspection Certificates, inspection reports of inspection agency, certified test reports, FATS reports, material test reports, certificate for dimensional accuracy, Weight Certificates with position of C.G etc	7	4.	Soft copy of all above documents in CD or Pen drive	7
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12.2	All documents must be in English language only.															
12.3	All drawings & documents shall contain dimensions & other parameters in S.I. units only.															
12.4	Documentation is to be forwarded to the consignee in a separate enclosure, along with supplies.															
12.5	Material/Test/Inspection Certificate is to carry a reference number or any other details so as to relate the certificates with the relevant material.															
12.6	Delivery of main equipment shall be considered completed only on receipt of all approved Manuals & Documentations as detailed in Table -5 above.															
13	Design Standards: Following rules and regulations as applicable shall be met:															
13.1	Nominated Classification Society Class Rules.															
13.2	International load line reg. 1966 as amended by Protocol of 1988 and any other subsequent amendments.															
13.3	IMO/MARPOL-73/78 reg and any further / latest amendments including MS Act 58 and their rules.															
13.4	COLREG 72 and any further/ latest amendments.															
13.5	IMO /Anti Fouling System.															
13.6	International tonnage 1969 and any further/ latest amendments.															
13.7	SOLAS 1992 as amended in 2002 and any further / latest amendments.															
13.8	Stability standard as per NES 109.															
13.9	Naval Magazine Explosive Regulations (NMER).															
13.10	Helo deck Regulation as per IRS Rules and Regulations for construction of Coast Guard Vessels (Ch-5, Section -8) or equivalent ABS/LRS/BV/DNV/GL/NK rules.															
13.11	Superior/higher specifications of standard are acceptable subject to proving and satisfactory trial by Yard.															



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14	Quality Standard:
14.1	Design and production of equipment should conform to the best worldwide engineering practices, for ensuring high quality, reliability, durability, ease of operation and maintenance for meeting the ship's requirements.
14.2	During equipment production the equipment shall be subjected to various stage inspections. Equipment supplier shall ensure high quality of production as per approved quality assurance plan. Quality assurance should meet the specified standards and intent of ISO 9001: 2015 (quality management systems) or its latest version.
14.3	During equipment production, any deviation to the QAP/finalized specifications/standards shall be brought to the notice of designated classification society and Shipyard/ICG, along with valid reasons and recommended solution, without any compromise on quality, reliability and performance of the equipment.
15	Factory Acceptance Trials (FATs):
15.1	In order to verify its correct assembly and operation, each equipment, shall be subjected to Factory Acceptance Trials as per established proven engineering practice. A detailed FATs program and post-test inspections to demonstrate performance characteristics and guaranteed parameters of the equipment shall be prepared and submitted by the supplier for approval.
15.2	All the parameters/performance required to be checked during HATs/SATs must be included in the FATs & duly noted.
15.3	During Factory Acceptance Trials, the supplied equipment is to be installed on the test bed and operated in the same way as it will be on board the vessel. Any correction applied for different environmental and installation conditions shall be duly notified to Coastguard/shipyard seeking their approval.
15.4	The testing installation shall provide for a mounting arrangement of equal stiffness as expected one for the ship structure where the unit will be seating.
15.5	The schedule for inspection, test & trials should be drawn up in such a way that all inspections including component level inspection, trials of subassemblies, etc., should be, as far as practicable performed at the corresponding stage of manufacture. Detailed measurements should be carried out at the appropriate stage of manufacture.
15.6	Factory Acceptance Trials shall be offered to, witnessed & accepted by ICG reps / Classification Society as indicated in the Purchase order. The FATs shall also be witnessed by shipyard representative.
15.7	The supplier shall provide a detailed program of workshop and shipboard tests and post-test inspection to demonstrate the performance characteristics and the guaranteed parameters of the equipment for approval by the shipyard/ Indian Coastguard, in the technical offer
15.8	All defects observed or developed during the inspection/ testing are to be rectified free of cost before dispatch to shipyard.
15.9	Documentation on equipment FATs procedure is to be submitted by equipment supplier in time bound manner, well in advance for approval by the designated classification society. For conducting equipment official FATs, around 12 weeks advance notice shall be given by equipment supplier to designated classification society/Shipyard/ICG, for participation in FATs. On successful completion of factory acceptances tests, complete FATs report duly certified by the designated classification society, shall be submitted to Shipyard/Indian Coast Guard within 02 weeks' time.
16	Maintenance & Logistics:
16.1	Equipment supplier shall ensure high reliability and low maintenance of equipment.
16.2	While equipment maintenance and repair between major overhauls would be carried out in-situ on-board the ship, major maintenance/overhaul would be undertaken ashore by repair organization.
16.3	Equipment design should therefore ensure ease of maintenance and accessibility to



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	important sub-assemblies/components/accessories.
16.4	Suitable provisions (such as inspection windows, etc.) as feasible, are to be made for ease of in-situ visual inspection of important sub-assemblies/components/accessories for routine inspection, checks and maintenance, without dismantling the equipment assembly/components.
16.5	Equipment supplier shall provide maintenance schedules, planned maintenance intervals and procedure for undertaking maintenance of equipment on-board and ashore.
17	Spares:
17.1	Installation & Commissioning Consumable, On-Board Spares, special tools, test equipment, etc., are to be recommended by equipment supplier, taking into account operational and maintenance requirements of the equipment. Equipment supplier shall submit comprehensive list of all types of spares & tools under appropriate category along with the technical offer. Different categories of spares & tools shall be supplied, in consultation with Shipyard/ICG, based upon ranging and scaling by ICG.
17.2	Documentation for equipment spares shall include Comprehensive Part List (CPL) & Part Identification List (PIL), for meeting ICG's Logistics Management System (LMS)/Ship's Logistics Management System (SLMS) requirements. All details on spares are to be submitted by equipment supplier in compatible format in electronic media.
18	Installation Tools and Commissioning Consumables:
18.1	Installation Tools: Special tools, jigs and fixtures & test equipment required for flushing, setting to work, testing & tuning, on-board trials (HATs/SATs) and post CST inspection of critical internal parts and reassembly of the equipment and its auxiliary systems shall be supplied. Tools shall be ordered along with the main equipment & delivered along with the main equipment
18.2	Commissioning Consumables: The Commissioning consumables (first charge like coolants, greases, special oil, filters, gaskets, refrigerant etc.) shall be included in the scope of supply. Commissioning consumables shall be delivered before STW of the main equipment, tentative schedule of which shall be indicated in the Tender Enquiry
18.3	An itemised list with cost for the same is also to be indicated in the offer to facilitate their procurement in future, if required.
18.4	One set of standard tools adequate for undertaking the maintenance onboard should be supplied along with the offer.
19	On Board Spares (OBS):
19.1	The manufacturer's recommended list of On-Board Spares (MRL-OBS) required for servicing and maintenance, including breakdown maintenance for two years of operation after completion of the warranty period, should be included in the scope of supply. A list of On-Board Spares along with the maintenance schedule is to be submitted. The On-Board Spares and special tools shall cater to all on-board maintenance routines and possible repair requirements. Preservation requirements of On-Board Spares, if any, shall be indicated in the offer. The list of On-Board Spares required for auxiliary equipment/system shall also be indicated in the offer.
19.2	An item-wise list with cost (in LMS format to be submitted in soft copy in Excel) of On-Board Spares, special tools, and test equipment should be as per Annexure 3 .
19.3	In case of any defect or deficiency observed in OBS while handing over to ship crew, the same may be made good by the vendor without any cost implication.
19.4	The Manufacturer's Recommended List of On-Board Spares has to be recommended based on the likely consumption rate of the spares and on the exploitation pattern of the equipment.
19.5	Firms quoting lesser Manufacturer's Recommended List of On-Board Spares in terms of range and depth will have to make good deficiencies at their cost without any financial responsibility or liability to ICG/MDL within 30 days of intimation to render equipment operational.



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19.6	A certificate of sufficiency of Manufacturer's Recommended List of On-Board Spares is to be submitted by the firm for 03 years of operation of the ship.
19.7	The Manufacturer's Recommended List of On-Board Spares should also include the spare conforming to Classification Society rule requirements for the vessel.
19.8	The ICG would have the option to amend the list of OBS proposed by the firm during the TNC of the equipment within the quoted price to ensure its sufficiency, based on its past experience of the exploitation of the same or similar equipment.
20	Indigenisation/Local Support: (Applicable to equipment with import content)
20.1	The supplier is to indicate if the equipment is original OEM supply or manufactured in INDIA under license (specifying the import content). The manufacturer is to engage into a co-operation with a reputed manufacturer of similar equipment's in India and accordingly plan for progressive indigenization.
20.2	In this respect, the equipment manufacturer shall confirm that he will be able to authorize priority works at his works and provide the necessary local support as required to meet the ship construction and trial program and provide the necessary after sale support to the ICG. Future plans for indigenous production of the equipment associated control/monitoring devices and transfers of technology are to be indicated in the proposal for consideration of Indian Coast Guard Headquarters.
21	Product Support:
21.1	Equipment supplier is to provide product support for ship's life of 25 years. In case the equipment is likely to be obsolescent, the supplier shall notify the Coast Guard with at least two years prior notice, along with valid reasons and recommended solution.
21.2	The firm/OEM to submit undertaking to provide product support for minimum period of 25 years from date of delivery of the vessel.
21.3	Undertaking for upgrade/currency of software for all equipment min 05 years from date of delivery of vessel. In case of obsolescence within 05 years from date of delivery of the Training ship, the same to be upgraded without any additional cost.
21.4	Firm to indicate after sales and product support facilities in India with response time for attending defect and providing spares.
21.5	All upgradation and modification carried out on equipment during its life cycle must to be intimated to ICG. Further, any upgradation/modification during guarantee period of the equipment same to be included free of cost.
21.6	Firm should agree to enter into the rate contract / All-inclusive Annual maintenance contract (AIAMC) with ICG for maintenance and supply of spares.
22	Operational Cycle: The operating refit cycle of ship is as follows:
22.1	1st and 2nd Ops refit cycle – Operation cycle of 24 months followed by a refit.
22.2	3rd and 4th Ops refit cycle – Operation cycle of 18 month followed by a refit.
22.3	Balance Ops and refit cycle – Operation cycle of 15 month followed by a refit.
22.4	First three refits are short refit (SR) followed by a normal refit (NR). Second NR will be medium repair (MR).
22.5	Short refit is for duration of 04 months. Normal refit is for duration of 05 months and medium refit for duration of 12 months.
23	Materials:
23.1	A component wise material list (with specifications) is to be provided by the equipment supplier. Standard materials for use on-board ocean-going ships are only to be used. Various materials used shall be in accordance with the stipulated requirements as per international Standard, as stated in the equipment technical specifications. Any deviation from specified materials is to be informed to Shipyard/Indian coast Guard in the Deviation List placed at Annexure- '1' with suitable reasons and justifications, subject to the condition that the



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	material meets the requirements for envisaged marine application. A separate declaration stating that no asbestos materials are used in the product is to be submitted along with offer and also post manufacturing during equipment delivery.
24	Interchangeability:
24.1	Equipment design is to ensure that components and parts having same dimensions and characteristics should be inter-changeable between different units of similar kind in the ship, without affecting the specified equipment performance.
25	Lifting Arrangement:
25.1	Equipment components weighing more than 40 kilograms are to be provided with eyebolts/lifting arrangement, for ease of handling/lifting on board the ship or ashore. During transportation/transit of equipment, adequate provisions (such as supports, locking arrangement, jacking, etc.) are to be made for preventing any damage to the equipment & its associated components. Any component requiring special handling shall be clearly marked and appropriate handling instructions shall be provided by equipment supplier. One set of special lifting gear (if any) shall be supplied to shipyard.
26	Preservation / Conditioning:
26.1	Equipment supplier is to provide high quality packing for the complete scope of supply along with handling arrangements. The package/container should display clear instructions for stowage, handling, care and accessibility for inspection of equipment preservation condition.
26.2	Equipment shall be supplied with Initial preservation for a period of 12 months for tropical conditions and protected against high humidity. The equipment is to be preserved on delivery as per the standard marine engineering practice. Closing plates/plugs/caps (duly filled with nitrogen gas) are to be provided on all openings.
27	Packing & Shipping:
27.1	All equipment shall be adequately packed and protected with supports to ensure adequate protection during all methods of transportation. Each unit within a package/container shall be clearly marked in English for identification. The container shall clearly indicate the commodity description with caution marks, weight, size, etc.
27.2	A separate document giving complete details & instruction for storage, preservation, handling & transportation after delivery shall be supplied & a copy must be included with the shipping document. The supplier should indicate the delivery schedule port of embarkation, transport, packing, preservation, insurance etc.
27.3	The instrumentation, sensors and meters etc. which are fitted on the equipment are to be removed from the equipment and shall be staggered delivered according to shipyard schedule in a separate suitable box/packing during STW.
27.4	Following items shall be packed in separate containers/boxes with proper colour coding (with description) & list of their contents in English for their easy identification and traceability: (i) Deliverables related to Main Equipment (to be marked in green colour). (ii) Deliverables related to Installation material and Tools related to Main & Auxiliary Equipment (to be marked in green colour). (iii) Commissioning consumables and Tools (to be marked in green colour). (iv) On Board spares and Tools (to be marked in red colour). (vi) Documentation (to be marked in blue colour).
27.5	The list of actual deliverables against each of the above serials shall be forwarded to shipyards in soft copy (MS Excel format) with required part nos. within one week of finalization of PNC in order to detail them in the purchase order.
27.6	Packing list should give further breakup of items, wherever particular item is quantified by set.
28	Security of Information:



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28.1	The information contained in this document is not to be divulged to any other firm/third party without the prior permission of the Indian Coast Guard and MDL. Adequate measures are to be taken to ensure safe custody of this document.		
29	Warranty:		
29.1	The equipment along with associated auxiliaries/components shall be warranted by the equipment supplier for the stipulated performance for a period of twenty (20) months from the date of delivery of equipment to MDL or twelve (12) months after planned delivery date (D) (mentioned in succeeding Para) of the ship by shipyard MDL to the Indian Coast Guard, whichever is later. This is to be referred as 'Standard Warranty'.		
29.2	During the said period of 'Standard Warranty', the equipment supplied shall be warranted against any malfunction, defects, material failure, non-compliance to ordered specifications, sub-optimal performance, design deficiency, poor workmanship and quality. Any expenditure on account of equipment malfunction, repair or supply of spares against warranty defects shall be borne by the equipment supplier. If any defective part is required to be taken back to OEM's factory/works (i.e. importing and re-exporting from Country of origin) for the purpose of service, the entire liability including expenditure towards the same shall be borne by the supplier. The spare parts required / consumed for scheduled servicing & maintenance activities in the period of 'Standard Warranty' shall also be provided by the OEM without any commercial implication.		
29.3	Extension of Warranty: Supplier shall mandatorily indicate, in the offer, the annual rate for extended warranty period, in the event of expiry of warranty period as detailed above along with the attendant commercial terms and conditions if any.		
30	Planned Delivery date(D): The planned date for delivery of the Ships to the Indian Coastguard by MDL are tabulated below:		
	Ship no.	Yard No.	Planned Delivery Date
	1	16101	December 2026
31	Weight Recording / Weight Certificate:		
31.1	Net weight of each component is to be recorded in presence of designated inspection authority and the weight certificate is to be submitted by the equipment supplier, along with equipment supply. Format for weight certificate, is placed at Annexure '2' of this document. The supplier shall have to submit, reasons for variation between allocated weight and actual/certified weight for each and every item, wherever applicable, to Coast Guard and MDL for their consideration and further necessary action.		
32	Maintenance Management Software:		
32.1	A Maintenance Management software package for Ship Maintenance, Planned Preventive Maintenance (PPM), Defect Record & Tracking and Maintenance Forecast & Planning as per CG requirements shall be installed and commissioned by MDL.		
32.2	The software package shall be capable of indicating Maintenance Routines falling due on various equipment fitted on-board and spares requirement, as per OEM promulgated schedule.		
32.3	The software will be capable of interlinking on-board spares with actual spares requirement and indicate future requirement to meet Minimum stock level.		
32.4	OEM is required to submit the inputs such as routine schedule, spare requirement etc. in the format enclosed at Annexure-4.		
33	Technical Assistance:		
33.1	The Supplier shall provide the necessary representative(s) as and when required, in carrying out inspection and supervise the work that is done on the equipment, during the following phases:		
	a.	Preparation for installation of equipment by shipyard.	
	b.	Monitoring of proper equipment preservation during storage.	



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	c.	On-board erection and alignment.
	d.	Setting to Work (including fitment of latest calibrated instrumentation).
	e.	Harbour Trials.
	f.	Assistance in trouble shooting.
	g.	Customer Sea Trials.
	h.	Post CST equipment Inspections
	i.	Final Machinery Trials
	j.	Assistance in operation during equipment guarantee period.
33.2		Shipyards has to progress on ship construction activities, simultaneously on ships of the coastguard project or on ships of different projects. View this; there shall be every likelihood of clash of requirement of technical assistance. In such eventuality, in order to avoid delays on one ship due to similar work requirement on other ship, supplier shall depute their dedicated separate/independent team of supervisors/specialists for required technical assistance, on the required ships. Rotation of supervisors/specialist amongst the various ships/projects shall be avoided.
33.3		The supplier shall provide checklist for installation, setting to work, HATs & SATs to the shipyards to ensure the completeness of the activities by shipyards in order to avoid waiting period of the supplier specialists.
34		Compliance Matrix:
34.1		Para-wise compliance matrix, including paras which are not applicable, as per the technical specifications (contained in this document) shall be submitted by the equipment supplier along with the technical offer, in the format as per Annexure-1 (preferably in excel sheet). The technical offer received without Compliance Matrix shall be liable for rejection.
35		Check List of Documents to be submitted with Offer:
35.1		Compliance matrix as per Annexure 1
35.2		Preliminary drawings for Glass windows with dimensions & weight data.
35.3		Recommended list of OBS & Installation material
35.4		Lead time for delivery of Material post placement of order.
35.5		Documents in support of Technical prequalification criteria specified in tender document.



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SECTION - II

TECHNICAL REQUIREMENT

1.	Equipment: Glass windows conforming to BSMA -25 and with Stainless Steel (SS 304) frame Suitable for bolting on to Mild Steel bulkhead.
2.	Scope of Supply:
2.1	39 Nos. of bolted glass windows conforming to BSMA -25 and with Stainless Steel frame Suitable for bolting on to Mild Steel bulkhead
2.2	Quantity :39 Nos as per Annexure-5
2.3	Aluminium Template for each size of window
2.4	Installation Material (sealing compound, nut, bolts, gaskets, etc)
2.5	On Board Spares as per Para 18.4 of Section-I
2.6	Documentation as per Par 12 of Section-I
3.	Technical Specification:
3.1	Items to be supplied complete in all respects to the entire satisfaction of Inspecting Authority.
3.2	All windows should conform to BSMA25.
3.3	Windows frame are to be of Stainless Steel (SS 304) suitable for bolting on to steel bulkheads of thickness 5-8 mm.
3.4	A rigid Aluminium template shall be supplied with each window to facilitate the cut out marking and drilling on the ships structure to ensure an effective installation is achieved.
3.5	The windows should be supplied in matt. anodized natural colour by Electro chemical process.
3.6	All glass shall be marked 'TOUGHENED' indelibly on the top clear of window glass frame.
3.7	Toughened Glass generally conform to IS 6640 and to be free from PARALAX ERROR. Toughened glass should have FLEXUAL STRENGTH: 199 MPa & FLEXUAL MODULUS: 73000 MPa.
3.8	Design and testing shall be generally conforming to IS 8886.
3.9	2mm thick gaskets of Neoprene rubber are to be cut properly to the shape of window main frame plating flange with holes and supplied in order to provide the same between window flange and shell.
3.10	Stainless steel securing bolt conforming to AISI 316 (with 10% extra quantity) for windows are to be supplied along with windows.
3.11	Hose testing will be done by MDL as per ABS rules on the windows after fitment onboard the ship. The supplier should rectify/replace if any window is found not meeting water tight or faulty by any other means.
3.12	All window frames shall be permanently marked with the following details:- a) Manufacturers name (or trade mark) and serial number. b) Thickness of the glass fitted. c) Stamp of the inspection/approval authority. d) The nominal dimension (size) of the window e) Orientation of the windows to be marked with paint.
3.13	The window supplier should indicate the size of cut in bulkhead required for each window in the technical offer.
3.14	Pressures testing of the windows are to be done as per BSMA 25 at manufacturer's premises and certificates duly signed by ABS are to be supplied with windows.
3.15	Strom covers are to be supplied for windows as per list enclosed at Annexure-05. Strom covers should meet the class requirements and strength of cover should be equivalent to the strength of bulkhead thickness.
3.16	All material required for installation of Glass windows shall be in supplier's scope. Sealing material required to maintain watertight integrity also shall be in supplier scope.
3.17	All Glass Windows should be type approved by Classification society.
3.18	All class and manufacturer test certificate to be submitted during delivery of items.



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ANNEXURE – 1

(To be filled in by the **SUPPLIER** & submitted as part of the Offer)

COMPLIANCE MATRIX

With reference to the subject Requisition received along with the MDL Inquiry and our **QUOTATION No.** _____ **Dated** _____ we hereby confirm / clarify the following :

TSP Para No	Complied / Not Complied	Offer Reference (Page & Para No.)	Deviations with reasons (if any)
1			
2			
3			
4			
5			
6			
7			
8			

The Bidder should fill in this form for the deviations of his bid from the requirements as stated in the TSP. If no deviation is required, bidder should fill in "NIL" in the deviation column. Deviation listed other than deviation form shall not be considered.

BIDDER'S COMPANY SEAL

BIDDER'S SIGNATURE & DATE



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Annexure - 2

WEIGHT CERTIFICATE

EQUIPMENT DESCRIPTION:

EQUIPMENT NO. :

The form shall be completed by Supplier & shall be supplied along with the equipment.

SUPPLIER'S NAME

Ref. Drg. No.

ADDRESS

Part No.

TELEPHONE NO.

ORDER NO.

EQPT. NO.

METHOD OF WEIGHING:

Supplier shall prescribe Method & Equipment Used:

SPECIFIED ACCURACY REQUIREMENT

NOTE :-

RESULT OF WEIGHING TOTAL EQUIPMENT DRY WEIGHT

(Excluding packing, temporary protection etc.)

ALLOCATED WEIGHT

(Weight estimate agreed by purchaser and supplier based on order specs).

REASONS FOR VARIATION BETWEEN ALLOCATED WEIGHT AND CERTIFIED WEIGHT:

WEIGHING ADDRESS:

WITNESSED BY

FOR SUPPLIER

FOR PURCHASER

Representative

Representative

Date:

Signature / Date & Seal

Signature/Date & Seal

 MAZAGON DOCK SHIPBUILDERS LTD. (A Govt. Of India Undertaking) Dockyard Road, Mumbai -400 010.	DESIGN OUTFIT	SOTR No.	2046
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Annexure - 3
MANUFACTURER'S RECOMMENDED LIST OF ON BOARD SPARES (MRL-OBS)

VESSEL/ EQUIPMENT: 01 TRAINING SHIP

Sr No	Eqpt Part No./ Model no./Sl No.	Eqpt Description	OEM Name	Vendor Name	Illustrated Spare Part List (ISPL) Referance/ Part No. of	Desc of Spare	Country of Origin	Unit Price	Seller Order No. & Date	Currency Code	Total Qty	VED* Category	Recommend ed scale for 01 Training Ship	Remarks

*VED- VITAL / ESSENTIAL/ DESIRABLE analysis of spares to be carried out by OEM prior to submission to the Buyer.

Original Equipment Manufacturer (OEM): _____ (Complete Address)

1. Data regarding maintenance spares/stores like lubricants, sealing compound, gases should be given separately giving source of supply.
2. Data furnished as OBD should also include software backups, as applicable
3. In "Remarks" column following information (if applicable) be given:-
 - a) If an item has a shelf/operational life it will be marked as 'G' and life be indicated
 - b) Matching set of components be indicated.
 - c) Item which can be locally manufactured in India should be marked 'LM'.
 - d) Items which cannot be manufactured in India due to sophisticated design/ technology may be marked as 'SI' (Special Item).
 - e) If a component/assembly is common to other similar equipment offered by the OEM earlier, these should be marked 'CM' and Name of the equipment be indicated.
4. OBS list should be drawn out of the 'Part List' of the equipment, which should be separately given as part of Technical Manuals.
5. If the main equipment consists of other equipment, then OBS list should be prepared for them under proper heads. OBS list is to be prepared as per the maintenance concept of the customer.
6. Items provided along with the equipment as spares should also be included in OBS list
7. Modules/ Shop Replaceable Unit (SRU) / assemblies should be listed and their components should be included under them so as to relate each item of spare to their module / SRO / assembly.
8. OBS list for test equipment should also be provided on the similar format. Cost to be indicated in Price bid.'



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Annexure - 4
Maintenance Management Software (MMS) format

Maintenance Interval Schedule	Tasks to be performed	Detailed task description with corresponding equipment image in PDF/ jpeg format	Spares required for performing the tasks			Tools required
			Description	Quantity	Dimension/ weight	
Example:						
Initial 500 Hours	Aux water pump inspect	Check following components for wear and damage 1) Bearings 2) Impeller 3) Seal	Nil	Nil	Nil	
	Battery electrolyte level check	1) Remove filler caps 2) Add only distilled water if necessary 3) Keep the battery clean 4) Clean the terminals with fine grade of sandpaper if required.	Distilled Water	Nil	Nil	
	Engine oil filter change	1) Remove oil filter with 1U-7546 chain wrench 2) Clean sealing surface of filter mounting. 3) Apply clean engine oil to new oil filter gasket 4) Install the new oil filter. Tighten the filter until filter gasket contacts the base. Do no overtight the oil filter.	2) Oil filter gasket	1	Nil	



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ANNEXURE-5
List of Glass Window

SR NO	DESCRIPTION	LEGEND	TYPE	FRAME MATERIAL	CLEAR SIZE (L x W x R)	QTY	GLASS THIK	ACCESSORIES	REMARKS
1	WHEEL HOUSE WINDOW-SB	W1	OPENABLE	SS 304	900 x 1000 x R100	1	12 mm		WATER TIGHT
2	WHEEL HOUSE WINDOW-SB	W2	FIXED-BOLTED	SS 304	600 x 1000 x R100	1	19 mm		WATER TIGHT
3	WHEEL HOUSE WINDOW-SB	W3	FIXED-BOLTED	SS 304	1200 x 1000 x R100	1	19 mm		WATER TIGHT
4	WHEEL HOUSE WINDOW-SB	W4	FIXED-BOLTED	SS 304	1500 x 1000 x R100	1	19 mm	WITH WIPER	WATER TIGHT
5	WHEEL HOUSE WINDOW-SB	W5	FIXED-BOLTED	SS 304	1500 x 1000 x R100	1	19 mm	WITH WIPER	WATER TIGHT
6	WHEEL HOUSE CORNER WINDOW SB	W6	FIXED-BOLTED	SS 304	1200/900 x 1000 x R100	1	25 mm	WITH WIPER	WATER TIGHT
7	WHEEL HOUSE FRONT WINDOW	W7	FIXED-BOLTED	SS 304	1050/1200 x 1000 x R100	1	25 mm	WITH WIPER	WATER TIGHT
8	WHEEL HOUSE FRONT WINDOW	W8	FIXED-BOLTED	SS 304	1050 x 1000 x R100	1	25 mm	WITH WIPER	WATER TIGHT
9	WHEEL HOUSE FRONT WINDOW	W9	FIXED-BOLTED	SS 304	1120 x 1000 x R100	1	25 mm	WITH WIPER	WATER TIGHT
10	WHEEL HOUSE FRONT WINDOW	W10	FIXED-BOLTED	SS 304	1150 x 1000 x R100	1	25 mm	WITH WIPER	WATER TIGHT
11	WHEEL HOUSE FRONT WINDOW	W11	FIXED-BOLTED	SS 304	1050/1200 x 1000 x R100	1	25 mm	WITH WIPER	WATER TIGHT
12	WHEEL HOUSE CORNER WINDOW SB	W12	FIXED-BOLTED	SS 304	1200/900 x 1000 x R100	1	25 mm	WITH WIPER	WATER TIGHT
13	WHEEL HOUSE WINDOW-PB	W13	FIXED-BOLTED	SS 304	1500 x 1000 x R100	1	19 mm	WITH WIPER	WATER TIGHT
14	WHEEL HOUSE WINDOW-PB	W14	FIXED-BOLTED	SS 304	1500 x 1000 x R100	1	19 mm	WITH WIPER	WATER TIGHT
15	WHEEL HOUSE WINDOW-PB	W15	FIXED-BOLTED	SS 304	1200 x 1000 x R100	1	19 mm		WATER TIGHT
16	WHEEL HOUSE WINDOW-PB	W16	FIXED-BOLTED	SS 304	600 x 1000 x R100	1	19 mm		WATER TIGHT
17	WHEEL HOUSE WINDOW-PB	W17	OPENABLE	SS 304	900 X 1000 x R100	1	12 mm		WATER TIGHT
18	TRAINEE BRIDGE CORNER WINDOW-PB	W18	FIXED-BOLTED	SS 304	1000 x 1000 x R100	1	15 mm	WITH WIPER	WATER TIGHT
19	TRAINEE BRIDGE CORNER WINDOW-PB	W19	FIXED-BOLTED	SS 304	1000 x 1000 x R100	1	15 mm	WITH WIPER	WATER TIGHT
20	TRAINEE BRIDGE FRONT WINDOW	W20	FIXED-BOLTED	SS 304	740 x 1000 x R100	1	15 mm	WITH WIPER	WATER TIGHT



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SR NO	DESCRIPTION	LEGEND	TYPE	FRAME MATERIAL	CLEAR SIZE (L x W x R)	QTY	GLASS THIK	ACCESSORIES	REMARKS
21	TRAINEE BRIDGE FRONT WINDOW	W21	FIXED-BOLTED	SS 304	1600 x 1000 x R100	1	16 mm	WITH WIPER	WATER TIGHT
22	TRAINEE BRIDGE FRONT WINDOW	W22	FIXED-BOLTED	SS 304	1600 x 1000 x R100	1	16 mm	WITH WIPER	WATER TIGHT
23	TRAINEE BRIDGE FRONT WINDOW	W23	FIXED-BOLTED	SS 304	740 x 1000 x R100	1	15 mm	WITH WIPER	WATER TIGHT
24	TRAINEE BRIDGE CORNER WINDOW-SB	W24	FIXED-BOLTED	SS 304	1000 x 1000 x R100	1	15 mm	WITH WIPER	WATER TIGHT
25	TRAINEE BRIDGE CORNER WINDOW-SB	W25	FIXED-BOLTED	SS 304	1000 x 1000 x R100	1	15 mm	WITH WIPER	WATER TIGHT
26	QUARTER MASTER POST FRONT WINDOW	W26	FIXED-BOLTED	SS 304	1000 x 600 x R100	1	15 mm	WITH STORM COVER	WATER TIGHT
27	QUARTER MASTER POST FRONT WINDOW	W27	FIXED-BOLTED	SS 304	1000 x 600 x R100	1	15 mm	WITH STORM COVER	WATER TIGHT
28	QUARTER MASTER POST FRONT WINDOW	W28	FIXED-BOLTED	SS 304	600 x 600 x R100	1	15 mm	WITH STORM COVER	WATER TIGHT
29	QUARTER MASTER POST CORNER WINDOW-SB	W29	FIXED-BOLTED	SS 304	800 x 600 x R100	1	15 mm		WATER TIGHT
30	LSO WINDOW-AB	W30	FIXED-BOLTED	SS 304	900 x 1200 x R100	1	15 mm	WITH WIPER	WATER TIGHT
31	MCR WINDOW-FB	W31	FIXED-BOLTED	SS 304	1000 x 1050 x R100	1	55 mm		A-60, WATER TIGHT
32	MCR WINDOW-AB	W32	FIXED-BOLTED	SS 304	1000 x 1050 x R100	1	55 mm		A-60, WATER TIGHT
33	LSO WINDOW -ASB	W33	FIXED-BOLTED	SS 304	800 x 1050 x R100	1	15 mm	WITH WIPER	WATER TIGHT
34	LSO WINDOW -APB	W34	FIXED-BOLTED	SS 304	800 x 1050 x R100	1	15 mm	WITH WIPER	WATER TIGHT
35	EMERGENCY CONNING POSITION-PORT BHD	W35	FIXED-BOLTED	SS 304	2000 x 600 x R100	1	25 mm	WITH WIPER	WATER TIGHT
36	EMERGENCY CONNING POSITION-FORD BHD	W36	FIXED-BOLTED	SS 304	1000 x 600 x R100	1	25 mm	WITH WIPER	WATER TIGHT
37	EMERGENCY CONNING POSITION-FORD BHD	W37	FIXED-BOLTED	SS 304	1000 x 600 x R100	1	25 mm	WITH WIPER	WATER TIGHT
38	EMERGENCY CONNING POSITION-STBD BHD	W38	FIXED-BOLTED	SS 304	2000 x 600 x R100	1	25 mm	WITH WIPER	WATER TIGHT



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SR NO	DESCRIPTION	LEGEND	TYPE	FRAME MATERIAL	CLEAR SIXE (L x W x R)	QTY	GLASS THIK	ACCESSORIES	REMARKS
39	EMERGENCY CONNING POSITION-AFT BHD	W39	FIXED-BOLTED	SS 304	1000 x 600 x R100	1	25 mm	WITH WIPER	WATER TIGHT

Note:

01. WIPER WILL BE PROCURED SEPARATELY AND NOT TO BE SUPPLIED BY GLASS WINDOW OEM.
02. W26, W27 & W28 TO BE SUPPLIED ALONG WITH THE STORM COVERS.



MAZAGON DOCK SHIPBUILDERS LIMITED
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SHIPBUILDING DESIGN OUTFIT
DOCKYARD ROAD, MUMBAI - 400 010

STATEMENT OF TECHNICAL REQUIREMENTS
FOR
TOUGHENED GLASS WINDOW

PROJECT	:	06 NEXT GENERATION OFFSHORE PATROL VESSELS (NGOPV)
YARD NOS MDL	:	16401/16402/16403/16404/16405/16406
CLIENT	:	INDIAN COAST GUARD
DOCUMENT NO	:	2046
ICG HQ REFERENCE / APPROVAL	:	SA/0159/06 NGOPVs/12 dated 10 Feb '25
CLASSIFICATION NOTATION	:	+ A1 HSC(E) (Government Service) + AMS NIBS +ACC +DPS-1,FFV1-NS CS-Ready, HELIDK(SRF) by ABS or equivalent of LRS/DNV/GL/BV/IRS/NK

02	ANNEXURE 05 UPDATED AS PER DWG NO 1628-01 REV 04	16 DEC 25	MDL
01	AMENDED AS PER CGHQ LETTER REF SA/0157/01TS/Hull EQPT DATED 24 FEB 25	24 FEB 25	CGHQ
REV	DESCRIPTION	DATE	AUTHORISED BY
<i>Abhishek</i>	<i>Kiran Rajput</i>	<i>Ch G K RAO</i>	
ABHISHEK DM (D-F)	KIRAN RAJPUT CM (D-F)	CH G K RAO DGM/ HOS (D-F)	
Prepared By	Checked By	Approved By	



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TOUGHENED GLASS WINDOW

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SECTION - I

A. INTRODUCTION																											
1.	This General Specifications relate to Design, approval of the equipment by the classification society, Manufacture and Supply of 06 (six) ship set of Equipment for Project "Next Generation Offshore Patrol Vessels (NGOPVs)" of Indian Coast Guard.																										
2.	Project 06 NGOPV consist of Diesel Engine propulsion system comprises of two propulsion plants, each plant consisting of one Diesel Engine driving a Controllable Pitch Propeller and External Fi-Fi pump through single input and twin output Reduction Gearbox and respective shaft line. Each propulsion plant broadly comprises of: <table border="1"> <tr> <td>(a)</td> <td>One Diesel Engine of minimum 9000 KW power output.</td> </tr> <tr> <td>(b)</td> <td>One single input, twin-output Reduction Gearbox with built in thrust block.</td> </tr> <tr> <td>(c)</td> <td>One set of shafting along with associated components</td> </tr> <tr> <td>(d)</td> <td>One Controllable Pitch Propeller</td> </tr> <tr> <td>(e)</td> <td>Propulsion plant support systems (for Diesel engines, Gearboxes, Shafting & CPP)</td> </tr> <tr> <td>(f)</td> <td>Associated Controls & Monitoring System.</td> </tr> </table>	(a)	One Diesel Engine of minimum 9000 KW power output.	(b)	One single input, twin-output Reduction Gearbox with built in thrust block.	(c)	One set of shafting along with associated components	(d)	One Controllable Pitch Propeller	(e)	Propulsion plant support systems (for Diesel engines, Gearboxes, Shafting & CPP)	(f)	Associated Controls & Monitoring System.														
(a)	One Diesel Engine of minimum 9000 KW power output.																										
(b)	One single input, twin-output Reduction Gearbox with built in thrust block.																										
(c)	One set of shafting along with associated components																										
(d)	One Controllable Pitch Propeller																										
(e)	Propulsion plant support systems (for Diesel engines, Gearboxes, Shafting & CPP)																										
(f)	Associated Controls & Monitoring System.																										
3.	The Supplier should submit the quotation based on this General Conditions & Requirements (GCR) and the separate Technical Specifications for Procurement (TSP) of each equipment. Should there be any discrepancies between the GCR and the Technical specification of each equipment, the technical specification shall prevail.																										
4.	The reference list of the equipment fitted in Indian or International Navy / Coast Guard or similar platform such as ocean going vessel, Offshore Platforms and Oil-Rigs to be submitted along with the offer.																										
5.	The Year of production of equipment and system to be of latest manufacture (during or after Year 2023). This is to confirm to the current production standards and should have 100% of the defined life at the time of delivery. (Other than permitted running hours during assembly / acceptance trials)																										
B. GENERAL CONDITIONS AND REQUIREMENTS																											
1.	Subject: - The general conditions and requirements specified in this chapter are intended to meet the functional requirements of a NGOPV (with integral helicopter capable for operation in oceans environment and performance of all the ICG charter of duties.																										
2.	Ship's Basic Particulars: - The role of NGOPV class of ships would be Coastal and offshore Patrolling, Policing Maritime Zones of India, Fisheries Protection and Monitoring, Control and Surveillance, Anti-Smuggling and Anti-Piracy, Search and Rescue, Limited Pollution Response against Marine Oil spill etc. Ship's basic particulars, are indicated below: <table border="1"> <thead> <tr> <th colspan="2">PARTICULARS</th> <th>REFFERNE DATA</th> </tr> </thead> <tbody> <tr> <td rowspan="3">Ship's dimensions</td> <td>Length overall (LOA)</td> <td>115.3 m</td> </tr> <tr> <td>Beam (water line)</td> <td>14.5 m</td> </tr> <tr> <td>Draft (deep displacement)</td> <td>3.84 m</td> </tr> <tr> <td>Ship's displacement</td> <td>Deep displacement</td> <td>Around 2886 Tonnes</td> </tr> <tr> <td colspan="2">Expected ship's life</td> <td>30 Years</td> </tr> <tr> <td rowspan="3">Operating profile</td> <td>Continuous slow speed</td> <td>8 – 14 knot</td> </tr> <tr> <td>Cruising</td> <td>12 – 15 knots</td> </tr> <tr> <td>Maximum</td> <td>23 knots at 92% MCR at full load displacement</td> </tr> <tr> <td colspan="2">Unrestricted continuous rating of Diesel engine, at 45 degree ambient temperature</td> <td>Min 9000 KW</td> </tr> </tbody> </table>	PARTICULARS		REFFERNE DATA	Ship's dimensions	Length overall (LOA)	115.3 m	Beam (water line)	14.5 m	Draft (deep displacement)	3.84 m	Ship's displacement	Deep displacement	Around 2886 Tonnes	Expected ship's life		30 Years	Operating profile	Continuous slow speed	8 – 14 knot	Cruising	12 – 15 knots	Maximum	23 knots at 92% MCR at full load displacement	Unrestricted continuous rating of Diesel engine, at 45 degree ambient temperature		Min 9000 KW
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3.	Reference Environmental Conditions:-			
3.1	The equipment shall be suitable for marine applications and achieve specified performance smoothly under tropical marine conditions.			
3.2	The equipment is to be designed for continuous operation & survival under the environmental conditions specified for ambient conditions as specified table below:-			
	Sr. No	Design Parameter	Value	
	(a)	Air Temperature	Minimum of 5 °C and Maximum of 45 °C	
	(b)	Sea water temperature	32 °C	
	(c)	Relative humidity	90% at 35 °C	
	(d)	Atmospheric pressure	750 mm of Hg column (1000 mbar)	
3.3	Seaway Conditions: Seaway conditions are defined at a sea water temperature of 1 to + 32 Deg. C, Ambient air temperature of 5 to 45 Deg. C and humidity up to 90% at 35 Deg. C. Salinity of water up to 35000 ppm. The equipment shall be capable of efficient and unrestricted operation without any deviation from its normal operating parameters under the seaway conditions, as below:-			
	Operational (up to sea state 7)			
	Roll	Maximum ± 22.5 degree		
	Pitch	Maximum ± 7.5 degree		
	Survival (up to sea state 7)			
	List	Maximum 15 degree from vertical (permanent)		
	Trim	Maximum 05 degree		
3.4	Complement:			
	(a)	Officers	11	
	(b)	Subordinate Officers	32	
	(c)	Others	78	
		Total	121	
3.5	Propulsion Plant Operating Profile / Modes: The ship is to be available for exploitation for minimum of 120 days in a year. Each shaft is expected to clock a minimum of 2500 running hours per year. Operational cycle of the ship will be of around 36 months.			
3.6	Service life of ship: The expected service life of ship is 30 years @ 2500 hrs. annual exploitation			
4.	Ship's Support Systems Supplies: For electrical supplies, in case of different requirements (voltage/frequency, etc.), the equipment supplier shall provide suitable provision (transformer/converter/UPS, etc.).			
	S.No.	SYSTEM	SUPPLIES	REMARKS
	(a)	Electrical	415 V AC @ 50 Hz, 3 phase 230 V AC @ 50 Hz, 1 phase	Any other power requirement shall be met by the equipment supplier.
5.	Noise & Vibration:			
5.1	Design of the equipment along with its associated auxiliaries/accessories/controls and mounting system, should ensure minimal vibration and noise.			
5.2	All components of the equipment and accessories are to be designed for ensuring resistance to misalignment due to forces of vibration.			
5.3	Suitable flexible hoses, bellows and noise reduction clamps are to be used for associated piping connections with the main equipment/auxiliaries.			



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5.4	Specific requirements on Noise & Vibration are to be as per respective equipment Technical Specification for Procurement.		
5.5	Noise and Vibration levels of the equipment shall meet the classification rules and guidelines.		
6.	Noise Levels in Machinery Spaces: Permissible noise levels in machinery spaces are to be in accordance ISO-6954:2000. The noise criteria for the compartments are as follows		
	Sr. No.	Compartments	DB(A)
	I.	Machinery spaces	110
	II.	MCR	75
	III.	Work places	85
	IV.	Non Specific workshops	90
	V.	Bridge and Chartroom	65
	VI.	Radio Rooms	65
	VII.	Cabins	60
	VIII.	Dining Hall/Offices	65
	IX.	Service spaces (galley, pantry)	75
	X.	Normally unoccupied spaces	90
7.	Vibration Isolators (Anti Vibration Mounts)		
7.1	For resiliently mounted equipment, the mounting system shall be capable of attenuating the vibrations of the offered equipment within the limit specified in Technical requirement.		
7.2	The installation and connections of the equipment shall account for the extreme displacements that may occur under loading conditions. Wherever necessary, suitable stops/snubbers shall be provided to prevent excessive motion. Vibration measurements are to be carried out as per ISO 4868(XII)/latest amendment.		
8	Electrical Equipment Requirements:		
8.1	Requirements for electrical equipment (including Motors & Starters) shall confirm its latest revision / equivalent International Standards.		
8.2	IP Rating for Electrical Equipment: IP rating for associated electrical equipment enclosure is IP 44. Specific IP rating to be as per Technical specification requirement.		
9.	Availability/ Reliability/ Redundancy/ Self Sufficiency:		
9.1	Equipment should be robust in design for ensuring high reliability, ease of operation and minimum maintenance.		
10	Binding Drawing & QAP approval:		
10.1	Vendor shall submit the drawings & QAP for approval to ABS within 4 weeks of placement of order. 1 set of drawing & QAP to be submitted to MDL as well for review & comments. MDL shall submit the comments on drawings & QAP if any within 1 week. Vendor shall be completely responsible to get drawings & QAP approved from ABS within stipulated time. Cost for the drawing & QAP approval by designated classification society shall be borne by vendor. Vendor shall also submit 3-D model of equipment in ".stp" format compatible with Aveva Marine to MDL.		
11	Inspection:		
11.1	All equipment/items to be inspected tested & certified by ABS as per latest rules & regulations. Cost for the inspection shall be borne by Vendor. All inspection report to be submitted along with main equipment.		
11.2	Equipment should be manufactured to the highest quality and equipment should confirm to		



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class requirement.

11.3 Receipt inspection shall be done by MDL & CGPRT (Mbi) on receipt of material in stores in the presence of OEM rep to verify completeness of the scope of supply and intactness of the supplied equipment. Defective / damaged parts and deficiency, if any, in supply shall be made good by OEM free of cost. OEM shall be intimated the date of receipt inspection.

12 Documentation:

12.1 Following documentation/certificates duly signed by surveyors of designated classification society in hard as well as in soft copy to be submitted by vendor along with equipment.

S. No	Type of Documents / Drawings	Quantity for Yard 16401	Quantity per ship for Yard 16402-406
1.	As Fitted Drawings with part list /Catalogue/ Class approved final GA & manufacturing Drgs with BOM/Installation drawings	7	3
2.	Technical, Operating, Installation, Testing & Maintenance manual	7	3
3.	Inspection Certificates, inspection reports of inspection agency, certified test reports, FATS reports, material test reports, load test certificates, certificate for dimensional accuracy, Weight Certificates with position of C.G etc	7	3
4.	Soft copy of all above documents in CD or Pen drive	7	3

12.2 All documents must be in English language only.

12.3 All drawings & documents shall contain dimensions & other parameters in S.I. units only.

12.4 Documentation is to be forwarded to the consignee in a separate enclosure, along with supplies.

12.5 Material/Test/Inspection Certificate is to carry a reference number or any other details so as to relate the certificates with the relevant material.

12.6 Delivery of main equipment shall be considered completed only on receipt of all approved Manuals & Documentations as detailed in Table -5 above.

13 Design Standards: Following rules and regulations as applicable shall be met:

13.1 Nominated Classification Society Class Rules.

13.2 International load line reg. 1966 as amended by Protocol of 1988 and any other subsequent amendments.

13.3 IMO/MARPOL-73/78 reg and any further / latest amendments including MS Act 58 and their rules.

13.4 COLREG 72 and any further/ latest amendments.

13.5 IMO /Anti Fouling System.

13.6 International tonnage 1969 and any further/ latest amendments.

13.7 SOLAS 1992 as amended in 2002 and any further / latest amendments.

13.8 Stability standard as per NES 109.

13.9 Naval Magazine Explosive Regulations (NMER).



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13.10	Helo deck Regulation as per IRS Rules and Regulations for construction of Coast Guard Vessels (Ch-5, Section -8) or equivalent ABS/LRS/BV/DNV/GL/NK rules.
13.11	Superior/higher specifications of standard are acceptable subject to proving and satisfactory trial by Yard.
14	Quality Standard:
14.1	Design and production of equipment should conform to the best worldwide engineering practices, for ensuring high quality, reliability, durability, ease of operation and maintenance for meeting the ship's requirements.
14.2	During equipment production the equipment shall be subjected to various stage inspections. Equipment supplier shall ensure high quality of production as per approved quality assurance plan. Quality assurance should meet the specified standards and intent of ISO 9001: 2015 (quality management systems) or its latest version.
14.3	During equipment production, any deviation to the QAP/finalized specifications/standards shall be brought to the notice of designated classification society and Shipyard/ICG, along with valid reasons and recommended solution, without any compromise on quality, reliability and performance of the equipment.
15	Factory Acceptance Trials (FATs):
15.1	In order to verify its correct assembly and operation, each equipment, shall be subjected to Factory Acceptance Trials as per established proven engineering practice. A detailed FATs program and post-test inspections to demonstrate performance characteristics and guaranteed parameters of the equipment shall be prepared and submitted by the supplier for approval.
15.2	All the parameters/performance required to be checked during HATs/SATs must be included in the FATs & duly noted.
15.3	During Factory Acceptance Trials, the supplied equipment is to be installed on the test bed and operated in the same way as it will be on board the vessel. Any correction applied for different environmental and installation conditions shall be duly notified to Coastguard/shipyard seeking their approval.
15.4	The testing installation shall provide for a mounting arrangement of equal stiffness as expected one for the ship structure where the unit will be seating.
15.5	The schedule for inspection, test & trials should be drawn up in such a way that all inspections including component level inspection, trials of subassemblies, etc., should be, as far as practicable performed at the corresponding stage of manufacture. Detailed measurements should be carried out at the appropriate stage of manufacture.
15.6	Factory Acceptance Trials shall be offered to, witnessed & accepted by ICG reps / Classification Society as indicated in the Purchase order. The FATs shall also be witnessed by shipyard representative.
15.7	The supplier shall provide a detailed program of workshop and shipboard tests and post-test inspection to demonstrate the performance characteristics and the guaranteed parameters of the equipment for approval by the shipyard/ Indian Coastguard, in the technical offer
15.8	All defects observed or developed during the inspection/ testing are to be rectified free of cost before dispatch to shipyard.
15.9	Documentation on equipment FATs procedure is to be submitted by equipment supplier in time bound manner, well in advance for approval by the designated classification society. For conducting equipment official FATs, around 12 weeks advance notice shall be given by equipment supplier to designated classification society/Shipyard/ICG, for participation in FATs. On successful completion of factory acceptances tests, complete FATs report duly certified by the designated classification society, shall be submitted to Shipyard/Indian Coast Guard within 02 weeks' time.
16	Maintenance & Logistics:
16.1	Equipment supplier shall ensure high reliability and low maintenance of equipment.



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16.2	While equipment maintenance and repair between major overhauls would be carried out in-situ on-board the ship, major maintenance/overhaul would be undertaken ashore by repair organization.
16.3	Equipment design should therefore ensure ease of maintenance and accessibility to important sub-assemblies/components/accessories.
16.4	Suitable provisions (such as inspection windows, etc.) as feasible, are to be made for ease of in-situ visual inspection of important sub-assemblies/components/accessories for routine inspection, checks and maintenance, without dismantling the equipment assembly/components.
16.5	Equipment supplier shall provide maintenance schedules, planned maintenance intervals and procedure for undertaking maintenance of equipment on-board and ashore.
17	Spares:
17.1	Installation & Commissioning Consumable, On-Board Spares, special tools, test equipment, etc., are to be recommended by equipment supplier, taking into account operational and maintenance requirements of the equipment. Equipment supplier shall submit comprehensive list of all types of spares & tools under appropriate category along with the technical offer. Different categories of spares & tools shall be supplied, in consultation with Shipyard/ICG, based upon ranging and scaling by ICG.
17.2	Documentation for equipment spares shall include Comprehensive Part List (CPL) & Part Identification List (PIL), for meeting ICG's Logistics Management System (LMS)/Ship's Logistics Management System (SLMS) requirements. All details on spares are to be submitted by equipment supplier in compatible format in electronic media.
18	Installation Tools and Commissioning Consumables:
18.1	Installation Tools: Special tools, jigs and fixtures & test equipment required for flushing, setting to work, testing & tuning, on-board trials (HATs/SATs) and post CST inspection of critical internal parts and reassembly of the equipment and its auxiliary systems shall be supplied. Tools shall be ordered along with the main equipment & delivered along with the main equipment
18.2	Commissioning Consumables: The Commissioning consumables (first charge like coolants, greases, special oil, filters, gaskets, refrigerant etc.) shall be included in the scope of supply. Commissioning consumables shall be delivered before STW of the main equipment, tentative schedule of which shall be indicated in the Tender Enquiry
18.3	An itemised list with cost for the same is also to be indicated in the offer to facilitate their procurement in future, if required.
18.4	One set of standard tools adequate for undertaking the maintenance onboard should be supplied along with the offer.
19	On Board Spares (OBS):
19.1	The manufacturer's recommended list of On-Board Spares (MRL-OBS) required for servicing and maintenance, including breakdown maintenance for two years of operation after completion of the warranty period, should be included in the scope of supply. A list of On-Board Spares along with the maintenance schedule is to be submitted. The On-Board Spares and special tools shall cater to all on-board maintenance routines and possible repair requirements. Preservation requirements of On-Board Spares, if any, shall be indicated in the offer. The list of On-Board Spares required for auxiliary equipment/system shall also be indicated in the offer.
19.2	An item-wise list with cost (in LMS format to be submitted in soft copy in Excel) of On-Board Spares, special tools, and test equipment should be as per Annexure 3 .
19.3	In case of any defect or deficiency observed in OBS while handing over to ship crew, the same may be made good by the vendor without any cost implication.
19.4	The Manufacturer's Recommended List of On-Board Spares has to be recommended based on the likely consumption rate of the spares and on the exploitation pattern of the equipment.



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19.5	Firms quoting lesser Manufacturer's Recommended List of On-Board Spares in terms of range and depth will have to make good deficiencies at their cost without any financial responsibility or liability to ICG/MDL within 30 days of intimation to render equipment operational.
19.6	A certificate of sufficiency of Manufacturer's Recommended List of On-Board Spares is to be submitted by the firm for 03 years of operation of the ship.
19.7	The Manufacturer's Recommended List of On-Board Spares should also include the spare conforming to Classification Society rule requirements for the vessel.
19.8	The ICG would have the option to amend the list of OBS proposed by the firm during the TNC of the equipment within the quoted price to ensure its sufficiency, based on its past experience of the exploitation of the same or similar equipment.
20	Indigenisation/Local Support: (Applicable to equipment with import content)
20.1	The supplier is to indicate if the equipment is original OEM supply or manufactured in INDIA under license (specifying the import content). The manufacturer is to engage into a co-operation with a reputed manufacturer of similar equipment's in India and accordingly plan for progressive indigenization.
20.2	In this respect, the equipment manufacturer shall confirm that he will be able to authorize priority works at his works and provide the necessary local support as required to meet the ship construction and trial program and provide the necessary after sale support to the ICG. Future plans for indigenous production of the equipment associated control/monitoring devices and transfers of technology are to be indicated in the proposal for consideration of Indian Coast Guard Headquarters.
21	Product Support:
21.1	Equipment supplier is to provide product support for ship's life of 30 years. In case the equipment is likely to be obsolescent, the supplier shall notify the Coast Guard with at least two years prior notice, along with valid reasons and recommended solution.
21.2	The firm/OEM to submit undertaking to provide product support for minimum period of 30 years from date of delivery of the vessel.
21.3	Undertaking for upgrade/currency of software for all equipment min 05 years from date of delivery of vessel. In case of obsolescence within 05 years from date of delivery of the Vessel, the same to be upgraded without any additional cost.
21.4	Firm to indicate after sales and product support facilities in India with response time for attending defect and providing spares.
21.5	All upgradation and modification carried out on equipment during its life cycle must to be intimated to ICG. Further, any upgradation/modification during guarantee period of the equipment same to be included free of cost.
21.6	Firm should agree to enter into the rate contract / All-inclusive Annual maintenance contract (AIAMC) with ICG for maintenance and supply of spares.
22	Operational Cycle: The operating refit cycle of ship is as follows:
22.1	1st and 2nd Ops refit cycle – Operation cycle of 24 months followed by a refit.
22.2	3rd and 4th Ops refit cycle – Operation cycle of 18 month followed by a refit.
22.3	Balance Ops and refit cycle – Operation cycle of 15 month followed by a refit.
22.4	First three refits are short refit (SR) followed by a normal refit (NR). Second NR will be medium repair (MR).
22.5	Short refit is for duration of 04 months. Normal refit is for duration of 05 months and medium refit for duration of 12 months.
23	Materials:
23.1	A component wise material list (with specifications) is to be provided by the equipment supplier. Standard materials for use on-board ocean-going ships are only to be used. Various



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	<p>materials used shall be in accordance with the stipulated requirements as per international Standard, as stated in the equipment technical specifications. Any deviation from specified materials is to be informed to Shipyard/Indian coast Guard in the Deviation List placed at Annexure- '1' with suitable reasons and justifications, subject to the condition that the material meets the requirements for envisaged marine application.</p> <p>A separate declaration stating that no asbestos materials are used in the product is to be submitted along with offer and also post manufacturing during equipment delivery.</p>
24	Interchangeability:
24.1	Equipment design is to ensure that components and parts having same dimensions and characteristics should be inter-changeable between different units of similar kind in the ship, without affecting the specified equipment performance.
25	Lifting Arrangement:
25.1	Equipment components weighing more than 40 kilograms are to be provided with eyebolts/lifting arrangement, for ease of handling/lifting on board the ship or ashore. During transportation/transit of equipment, adequate provisions (such as supports, locking arrangement, jacking, etc.) are to be made for preventing any damage to the equipment & its associated components. Any component requiring special handling shall be clearly marked and appropriate handling instructions shall be provided by equipment supplier. One set of special lifting gear (if any) shall be supplied to shipyard.
26	Preservation / Conditioning:
26.1	Equipment supplier is to provide high quality packing for the complete scope of supply along with handling arrangements. The package/container should display clear instructions for stowage, handling, care and accessibility for inspection of equipment preservation condition.
26.2	Equipment shall be supplied with Initial preservation for a period of 12 months for tropical conditions and protected against high humidity. The equipment is to be preserved on delivery as per the standard marine engineering practice. Closing plates/plugs/caps (duly filled with nitrogen gas) are to be provided on all openings.
27	Packing & Shipping:
27.1	All equipment shall be adequately packed and protected with supports to ensure adequate protection during all methods of transportation. Each unit within a package/container shall be clearly marked in English for identification. The container shall clearly indicate the commodity description with caution marks, weight, size, etc.
27.2	A separate document giving complete details & instruction for storage, preservation, handling & transportation after delivery shall be supplied & a copy must be included with the shipping document. The supplier should indicate the delivery schedule port of embarkation, transport, packing, preservation, insurance etc.
27.3	The instrumentation, sensors and meters etc. which are fitted on the equipment are to be removed from the equipment and shall be staggered delivered according to shipyard schedule in a separate suitable box/packing during STW.
27.4	Following items shall be packed in separate containers/boxes with proper colour coding (with description) & list of their contents in English for their easy identification and traceability:
	(i) Deliverables related to Main Equipment (to be marked in green colour).
	(ii) Deliverables related to Installation material and Tools related to Main & Auxiliary Equipment (to be marked in green colour).
	(iii) Commissioning consumables and Tools (to be marked in green colour).
	(iv) On Board spares and Tools (to be marked in red colour).
	(vi) Documentation (to be marked in blue colour).
27.5	The list of actual deliverables against each of the above serials shall be forwarded to shipyards in soft copy (MS Excel format) with required part nos. within one week of



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	finalization of PNC in order to detail them in the purchase order.		
27.6	Packing list should give further breakup of items, wherever particular item is quantified by set.		
28	Security of Information:		
28.1	The information contained in this document is not to be divulged to any other firm/third party without the prior permission of the Indian Coast Guard and MDL. Adequate measures are to be taken to ensure safe custody of this document.		
29	Warranty:		
29.1	The equipment along with associated auxiliaries/components shall be warranted by the equipment supplier for the stipulated performance for a period of twenty (20) months from the date of delivery of equipment to MDL or twelve (12) months after planned delivery date (D) (mentioned in succeeding Para) of the ship by shipyard MDL to the Indian Coast Guard, whichever is later. This is to be referred as 'Standard Warranty'.		
29.2	During the said period of 'Standard Warranty', the equipment supplied shall be warranted against any malfunction, defects, material failure, non-compliance to ordered specifications, sub-optimal performance, design deficiency, poor workmanship and quality. Any expenditure on account of equipment malfunction, repair or supply of spares against warranty defects shall be borne by the equipment supplier. If any defective part is required to be taken back to OEM's factory/works (i.e. importing and re-exporting from Country of origin) for the purpose of service, the entire liability including expenditure towards the same shall be borne by the supplier. The spare parts required / consumed for scheduled servicing & maintenance activities in the period of 'Standard Warranty' shall also be provided by the OEM without any commercial implication.		
29.3	Extension of Warranty: Supplier shall mandatorily indicate, in the offer, the annual rate for extended warranty period, in the event of expiry of warranty period as detailed above along with the attendant commercial terms and conditions if any.		
30	Planned Delivery date(D): The planned date for delivery of the Ships to the Indian Coastguard by MDL are tabulated below:		
	Ship no.	Yard No.	Planned Delivery Date
	1	16401	Jul 2027
	2	16402	Dec 2027
	3	16403	May 2028
	4	16404	Oct 2028
	5	16405	Mar 2029
	6	16406	Aug 2029
31	Weight Recording / Weight Certificate:		
31.1	Net weight of each component is to be recorded in presence of designated inspection authority and the weight certificate is to be submitted by the equipment supplier, along with equipment supply. Format for weight certificate, is placed at Annexure '2' of this document. The supplier shall have to submit, reasons for variation between allocated weight and actual/certified weight for each and every item, wherever applicable, to Coast Guard and MDL for their consideration and further necessary action.		
32	Maintenance Management Software:		
32.1	A Maintenance Management software package for Ship Maintenance, Planned Preventive Maintenance (PPM), Defect Record & Tracking and Maintenance Forecast & Planning as per CG requirements shall be installed and commissioned by MDL.		
32.2	The software package shall be capable of indicating Maintenance Routines falling due on various equipment fitted on-board and spares requirement, as per OEM promulgated		



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	schedule.
32.3	The software will be capable of interlinking on-board spares with actual spares requirement and indicate future requirement to meet Minimum stock level.
32.4	OEM is required to submit the inputs such as routine schedule, spare requirement etc. in the format enclosed at Annexure-4.
33	Technical Assistance:
33.1	The Supplier shall provide the necessary representative(s) as and when required, in carrying out inspection and supervise the work that is done on the equipment, during the following phases:
	a. Preparation for installation of equipment by shipyard.
	b. Monitoring of proper equipment preservation during storage.
	c. On-board erection and alignment.
	d. Setting to Work (including fitment of latest calibrated instrumentation).
	e. Harbour Trials.
	f. Assistance in trouble shooting.
	g. Customer Sea Trials.
	h. Post CST equipment Inspections
	i. Final Machinery Trials
	j. Assistance in operation during equipment guarantee period.
33.2	Shipyard has to progress on ship construction activities, simultaneously on ships of the coastguard project or on ships of different projects. View this; there shall be every likelihood of clash of requirement of technical assistance. In such eventuality, in order to avoid delays on one ship due to similar work requirement on other ship, supplier shall depute their dedicated separate/independent team of supervisors/specialists for required technical assistance, on the required ships. Rotation of supervisors/specialist amongst the various ships/projects shall be avoided.
33.3	The supplier shall provide checklist for installation, setting to work, HATs & SATs to the shipyards to ensure the completeness of the activities by shipyards in order to avoid waiting period of the supplier specialists.
34	Compliance Matrix:
34.1	Para-wise compliance matrix, including paras which are not applicable, as per the technical specifications (contained in this document) shall be submitted by the equipment supplier along with the technical offer, in the format as per Annexure-1 (preferably in excel sheet). The technical offer received without Compliance Matrix shall be liable for rejection.
35	Check List of Documents to be submitted with Offer:
35.1	Compliance matrix as per Annexure 1
35.2	Preliminary drawings for Glass windows with dimensions & weight data.
35.3	Recommended list of OBS & Installation material
35.4	Lead time for delivery of Material post placement of order.
35.5	Documents in support of Technical prequalification criteria specified in tender document.
35.6	All glass windows should be type approved by classification society.



MAZAGON DOCK SHIPBUILDERS LTD.
(A Govt. Of India Undertaking)
Dockyard Road, Mumbai -400 010.

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TOUGHENED GLASS WINDOW

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SECTION - II

TECHNICAL REQUIREMENT

1.	Equipment: Glass windows conforming to BSMA -25 and with Stainless Steel (SS 304) frame Suitable for bolting on to Mild Steel bulkhead.
2.	Scope of Supply:
2.1	32 Nos. of bolted glass windows conforming to BSMA -25 and with Stainless Steel frame Suitable for bolting on to Mild Steel bulkhead.
2.2	Quantity :32 Nos as per Annexure-5
2.3	Aluminium Template for each size of window.
2.4	Installation Material (sealing compound, nut, bolts, gaskets, etc).
2.5	On Board Spares as per Para 18.4 of Section-I.
2.6	Documentation as per Par 12 of Section-I.
3.	Technical Specification:
3.1	Items to be supplied complete in all respects to the entire satisfaction of Inspecting Authority.
3.2	All windows should conform to BSMA25.
3.3	Windows frame are to be of Stainless Steel (SS 304) suitable for bolting on to steel bulkheads of thickness 5-8 mm.
3.4	A rigid Aluminium template shall be supplied with each window to facilitate the cut out marking and drilling on the ships structure to ensure an effective installation is achieved.
3.5	The windows should be supplied in matt. anodized natural colour by Electro chemical process.
3.6	All glass shall be marked 'TOUGHENED' indelibly on the top clear of window glass frame.
3.7	Toughened Glass generally conform to IS 6640 and to be free from PARALAX ERROR. Toughened glass should have FLEXUAL STRENGTH: 199 MPa & FLEXUAL MODULUS: 73000 MPa.
3.8	Design and testing shall be generally conforming to IS 8886.
3.9	2mm thick gaskets of Neoprene rubber are to be cut properly to the shape of window main frame plating flange with holes and supplied in order to provide the same between window flange and shell.
3.10	Stainless steel securing bolt conforming to AISI 316 (with 10% extra quantity) for windows are to be supplied along with windows.
3.11	Hose testing will be done by MDL as per ABS rules on the windows after fitment onboard the ship. The supplier should rectify/replace if any window is found not meeting water tight or faulty by any other means.
3.12	All window frames shall be permanently marked with the following details:- a) Manufacturers name (or trade mark) and serial number. b) Thickness of the glass fitted. c) Stamp of the inspection/approval authority. d) The nominal dimension (size) of the window e) Orientation of the windows to be marked with paint.
3.13	The window supplier should indicate the size of cut in bulkhead required for each window in the technical offer.
3.14	Pressures testing of the windows are to be done as per BSMA 25 at manufacturer's premises and certificates duly signed by ABS are to be supplied with windows.
3.15	Strom covers are to be supplied for windows as per list enclosed at Annexure- 05. Strom covers should meet the class requirements and strength of cover should be equivalent to the strength of bulkhead thickness.
3.16	All material required for installation of Glass windows shall be in supplier's scope. Sealing material required to maintain watertight integrity also shall be in supplier scope.
3.17	All glass windows should be type approved by classification society.
3.18	All class and manufacturer test certificate to be submitted during delivery of items.



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ANNEXURE – 1

(To be filled in by the **SUPPLIER** & submitted as part of the Offer)

COMPLIANCE MATRIX

With reference to the subject Requisition received along with the MDL Inquiry and our **QUOTATION No.** _____ **Dated** _____ we hereby confirm / clarify the following :

TSP Para No	Complied / Not Complied	Offer Reference (Page & Para No.)	Deviations with reasons (if any)
1			
2			
3			
4			
5			
6			
7			
8			

The Bidder should fill in this form for the deviations of his bid from the requirements as stated in the TSP. If no deviation is required, bidder should fill in "NIL" in the deviation column. Deviation listed other than deviation form shall not be considered.

BIDDER'S COMPANY SEAL

BIDDER'S SIGNATURE & DATE



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WEIGHT CERTIFICATE

EQUIPMENT DESCRIPTION:

EQUIPMENT NO. :

The form shall be completed by Supplier & shall be supplied along with the equipment.

SUPPLIER'S NAME

ADDRESS

TELEPHONE NO.

ORDER NO.

Ref. Drg. No.

Part No.

EQPT. NO.

METHOD OF WEIGHING:

Supplier shall prescribe Method & Equipment Used:

SPECIFIED ACCURACY REQUIREMENT

NOTE :-

RESULT OF WEIGHING TOTAL EQUIPMENT DRY WEIGHT

(Excluding packing, temporary protection etc.)

ALLOCATED WEIGHT

(Weight estimate agreed by purchaser and supplier based on order specs).

REASONS FOR VARIATION BETWEEN ALLOCATED WEIGHT AND CERTIFIED WEIGHT:

WEIGHING ADDRESS:

WITNESSED BY

FOR SUPPLIER

FOR PURCHASER

Representative

Representative

Date:

Signature / Date & Seal

Signature/Date & Seal



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Annexure - 3

MANUFACTURER'S RECOMMENDED LIST OF ON BOARD SPARES (MRL-OBS)

VESSEL/ EQUIPMENT: 01 TRAINING SHIP

Sr No	Eqpt Part No./ Model no./SI No.	Eqpt Description	OEM Name	Vendor Name	Illustrated Spare Part List (ISPL) Reference/ Part No. of	Desc of Spare	Country of Origin	Unit Price	Seller Order No. & Date	Currency Code	Total Qty	VED* Category	Recommended scale for 01 Training Ship	Remarks

*VED- VITAL / ESSENTIAL/ DESIRABLE analysis of spares to be carried out by OEM prior to submission to the Buyer.

Original Equipment Manufacturer (OEM): _____ (Complete Address)

1. Data regarding maintenance spares/stores like lubricants, sealing compound, gases should be given separately giving source of supply.
2. Data furnished as OBD should also include software backups, as applicable
3. In "Remarks" column following information (if applicable) be given:-
 - a) If an item has a shelf/operational life it will be marked as 'G' and life be indicated
 - b) Matching set of components be indicated.
 - c) Item which can be locally manufactured in India should be marked 'LM'.
 - d) Items which cannot be manufactured in India due to sophisticated design/ technology may be marked as 'SI' (Special Item).
 - e) If a component/assembly is common to other similar equipment offered by the OEM earlier, these should be marked 'CM' and Name of the equipment be indicated.
4. OBS list should be drawn out of the 'Part List' of the equipment, which should be separately given as part of Technical Manuals.
5. If the main equipment consists of other equipment, then OBS list should be prepared for them under proper heads. OBS list is to be prepared as per the maintenance concept of the customer.
6. Items provided along with the equipment as spares should also be included in OBS list
7. Modules/ Shop Replaceable Unit (SRU) / assemblies should be listed and their components should be included under them so as to relate each item of spare to their module / SRO / assembly.
8. OBS list for test equipment should also be provided on the similar format. Cost to be indicated in Price bid.'



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Annexure - 4
Maintenance Management Software (MMS) format

Maintenance Interval Schedule	Tasks to be performed	Detailed task description with corresponding equipment image in PDF/ jpeg format	Spares required for performing the tasks			Tools required
			Description	Quantity	Dimension/ weight	
Example:						
Initial 500 Hours	Aux water pump inspect	Check following components for wear and damage 1) Bearings 2) Impeller 3) Seal	Nil	Nil	Nil	1) 1U-7546 chain wrench 2) Engine standard tool kit
	Battery electrolyte level check	1) Remove filler caps 2) Add only distilled water if necessary 3) Keep the battery clean 4) Clean the terminals with fine grade of sandpaper if required.	Distilled Water	Nil	Nil	
	Engine oil filter change	1) Remove oil filter with 1U-7546 chain wrench 2) Clean sealing surface of filter mounting. 3) Apply clean engine oil to new oil filter gasket 4) Install the new oil filter. Tighten the filter until filter gasket contacts the base. Do no overtight the oil filter.	2) Oil filter gasket	1	Nil	



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ANNEXURE-5
List of Glass Window

SR NO	DESCRIPTION	LEGEND	TYPE	FRAME MATERIAL	CLEAR SIZE (L x W x R)	QTY	GLASS THIK	ACCESSORIES	REMARKS
1	EMERGENCY CONNING POSITION WINDOW-PB	W1	FIXED-BOLTED	SS 304	1600 x 600 x R100	1	25 mm	WITH WIPER	WATER TIGHT
2	EMERGENCY CONNING POSITION WINDOW-PB	W2	FIXED-BOLTED	SS 304	900 x 300 x R100	1	25 mm	WITH WIPER	WATER TIGHT
3	EMERGENCY CONNING POSITION WINDOW-FB	W3	FIXED-BOLTED	SS 304	925/980 x 600 x R100	1	25 mm	WITH WIPER	WATER TIGHT
4	EMERGENCY CONNING POSITION WINDOW-FB	W4	FIXED-BOLTED	SS 304	925/980 x 600 x R100	1	25 mm	WITH WIPER	WATER TIGHT
5	EMERGENCY CONNING POSITION WINDOW-SB	W5	FIXED-BOLTED	SS 304	900 x 600 x R100	1	25 mm	WITH WIPER	WATER TIGHT
6	EMERGENCY CONNING POSITION WINDOW-SB	W6	FIXED-BOLTED	SS 304	1600 x 600 x R100	1	25 mm	WITH WIPER	WATER TIGHT
7	WHEEL HOUSE PB	W7	OPENABLE	SS 304	900 x 1000 x R100	1	15 mm	-	WATER TIGHT
8	WHEEL HOUSE PB	W8	FIXED-BOLTED	SS 304	900 x 1000 x R100	1	19 mm	-	WATER TIGHT
9	WHEEL HOUSE PB	W9	FIXED-BOLTED	SS 304	900 x 1000 x R100	1	19 mm	WITH WIPER	WATER TIGHT
10	WHEEL HOUSE PB	W10	FIXED-BOLTED	SS 304	900 x 1000 x R100	1	19 mm	WITH WIPER	WATER TIGHT
11	WHEEL HOUSE PB	W11	FIXED-BOLTED	SS 304	900 x 1000 x R100	1	19 mm	WITH WIPER	WATER TIGHT
12	WHEEL HOUSE CORNER WINDOW-PB	W12	FIXED-BOLTED	SS 304	1550 x 1000 x R100	1	25 mm	WITH WIPER	WATER TIGHT
13	WHEEL HOUSE FRONT WINDOW	W13	FIXED-BOLTED	SS 304	1200 x 1000 x R100	1	25 mm	WITH WIPER	WATER TIGHT
14	WHEEL HOUSE FRONT WINDOW	W14	FIXED-BOLTED	SS 304	1050 x 1000 x R100	1	25 mm	WITH WIPER	WATER TIGHT
15	WHEEL HOUSE FRONT WINDOW	W15	FIXED-BOLTED	SS 304	1100 x 1000 x R100	1	25 mm	WITH WIPER	WATER TIGHT
16	WHEEL HOUSE FRONT WINDOW	W16	FIXED-BOLTED	SS 304	1050 x 1000 x R100	1	25 mm	WITH WIPER	WATER TIGHT
17	WHEEL HOUSE FRONT WINDOW	W17	FIXED-BOLTED	SS 304	1200 X 1000 x R100	1	25 mm	WITH WIPER	WATER TIGHT
18	WHEEL HOUSE CORNER WINDOW-SB	W18	FIXED-BOLTED	SS 304	1550 x 1000 x R100	1	25 mm	WITH WIPER	WATER TIGHT
19	WHEEL HOUSE SB	W19	FIXED-BOLTED	SS 304	900 x 1000 x R100	1	19 mm	WITH WIPER	WATER TIGHT
20	WHEEL HOUSE SB	W20	FIXED-BOLTED	SS 304	900 x 1000 x R100	1	19 mm	WITH WIPER	WATER TIGHT
21	WHEEL HOUSE SB	W21	FIXED-BOLTED	SS 304	900 x 1000 x R100	1	19 mm	WITH WIPER	WATER TIGHT



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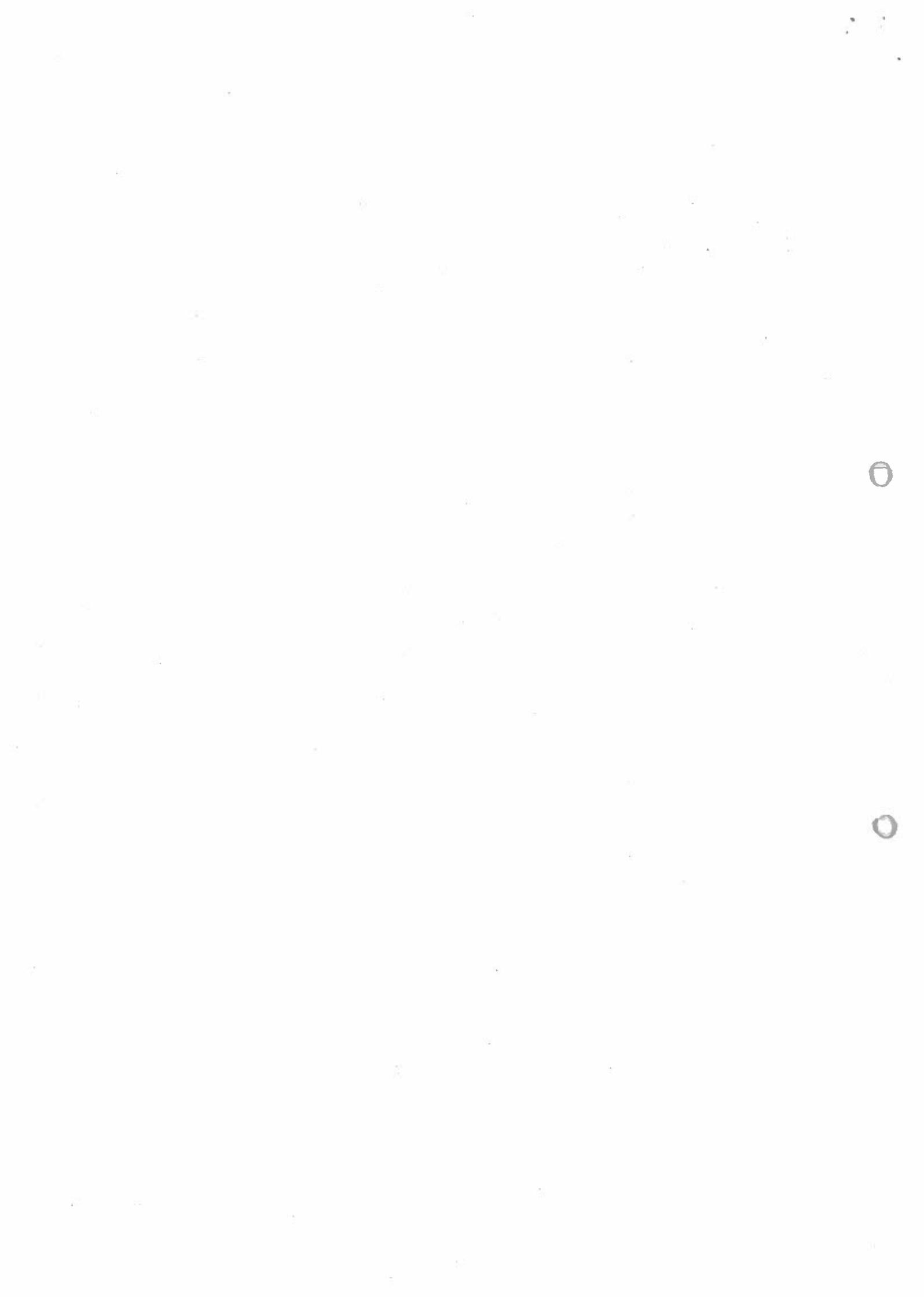
TOUGHENED GLASS WINDOW

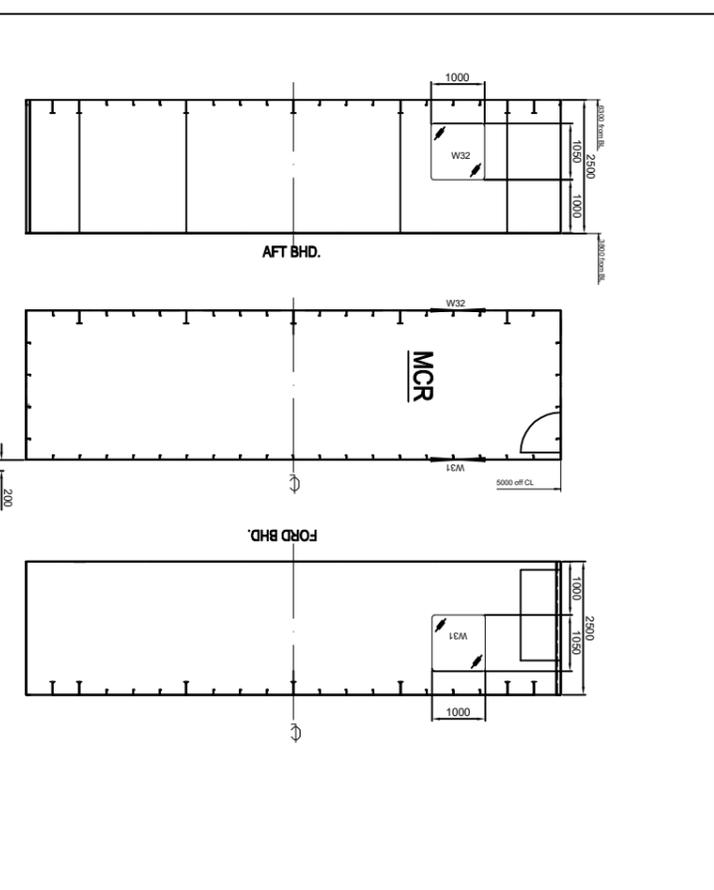
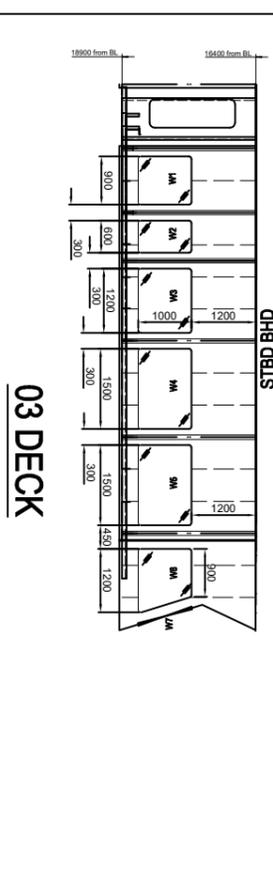
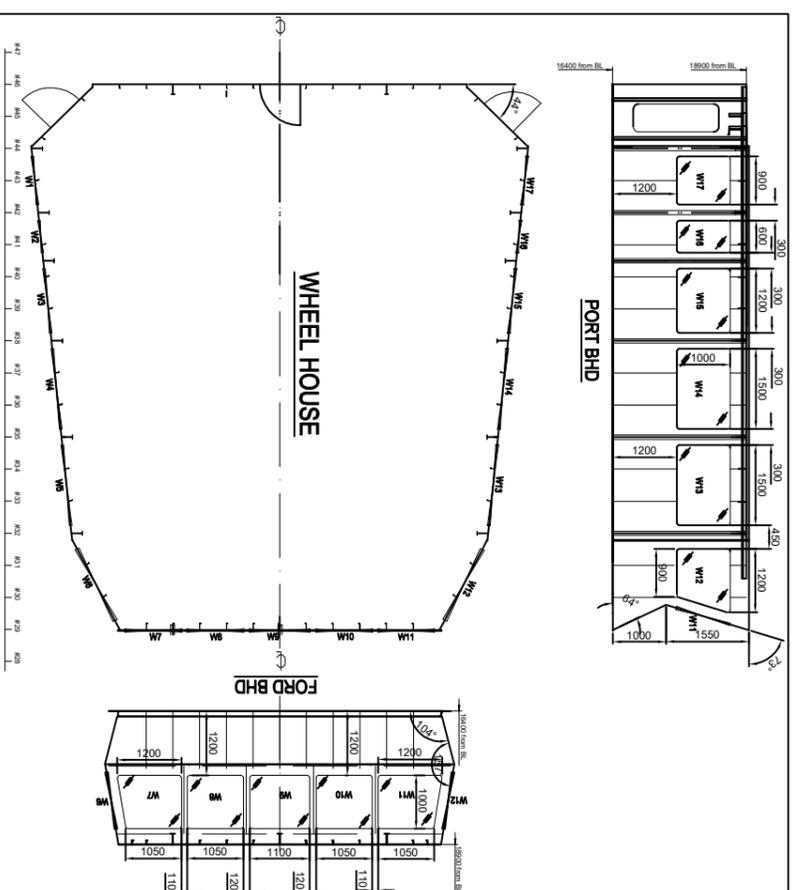
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SR NO	DESCRIPTION	LEGEND	TYPE	FRAME MATERIAL	CLEAR SIZE (L x W x R)	QTY	GLASS THIK	ACCESSORIES	REMARKS
22	WHEEL HOUSE SB	W22	FIXED-BOLTED	SS 304	900 x 1000 x R100	1	19 mm	-	WATER TIGHT
23	WHEEL HOUSE SB	W23	OPENABLE	SS 304	900 x 1000 x R100	1	15 mm	-	WATER TIGHT
24	LSO WINDOW-APB	W24	FIXED-BOLTED	SS 304	800 x 1200 x R100	1	15 mm	WITH WIPER	WATER TIGHT
25	LSO WINDOW-AB	W25	FIXED-BOLTED	SS 304	900 x 1200 x R100	1	15 mm	WITH WIPER	WATER TIGHT
26	LSO WINDOW-ASB	W26	FIXED-BOLTED	SS 304	800 x 1200 x R100	1	15 mm	WITH WIPER	WATER TIGHT
27	QUARTER MASTER POST PB	W27	FIXED-BOLTED	SS 304	900 x 600 x R100	1	15 mm	-	WATER TIGHT
28	QUARTER MASTER POST FRONT WINDOW	W28	FIXED-BOLTED	SS 304	2000 x 600 x R100	1	15 mm	WITH STORM COVER	WATER TIGHT
29	QUARTER MASTER POST FRONT WINDOW	W29	FIXED-BOLTED	SS 304	2000 x 600 x R100	1	15 mm	WITH STORM COVER	WATER TIGHT
30	QUARTER MASTER POST SB	W30	FIXED-BOLTED	SS 304	900 x 600 x R100	1	15 mm	-	WATER TIGHT
31	MCR WINDOW-AB	W31	FIXED-BOLTED	SS 304	1000 x 1050 x R100	1	55 mm	-	A-60, WATER TIGHT
32	MCR WINDOW-FB	W32	FIXED-BOLTED	SS 304	1000 x 1050 x R100	1	55 mm	-	A-60, WATER TIGHT

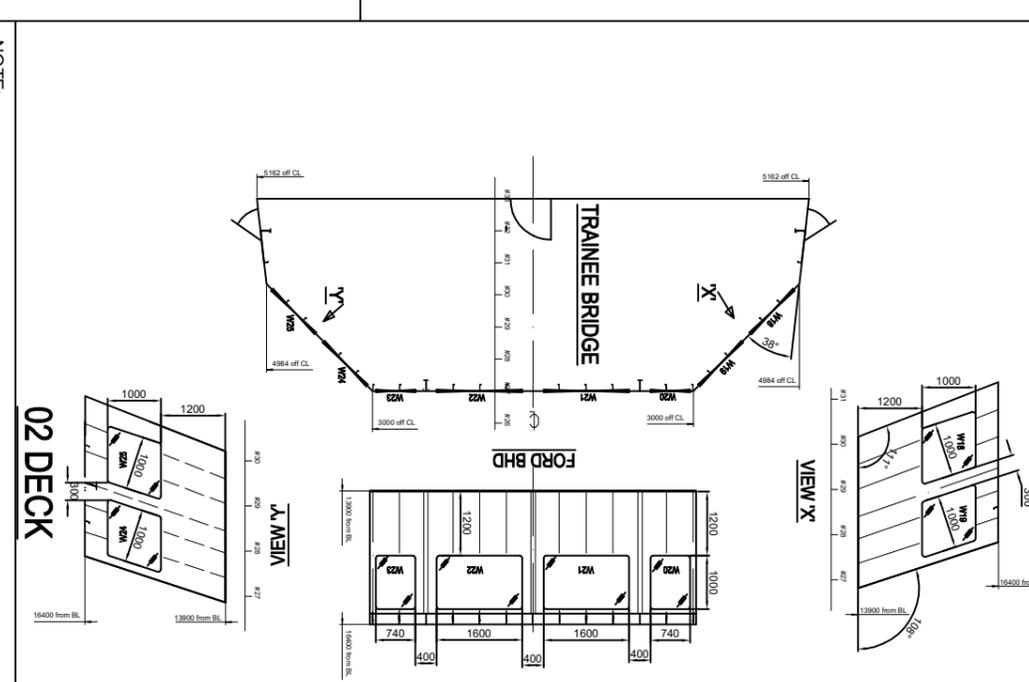
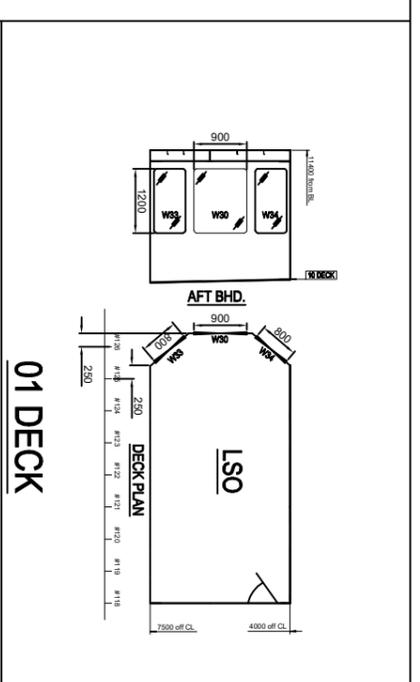
Note:

01. WIPER WILL BE PROCURED SEPARATELY AND NOT TO BE SUPPLIED BY GLASS WINDOW OEM.
02. W28 & W29 TO BE SUPPLIED ALONG WITH THE STORM COVERS.

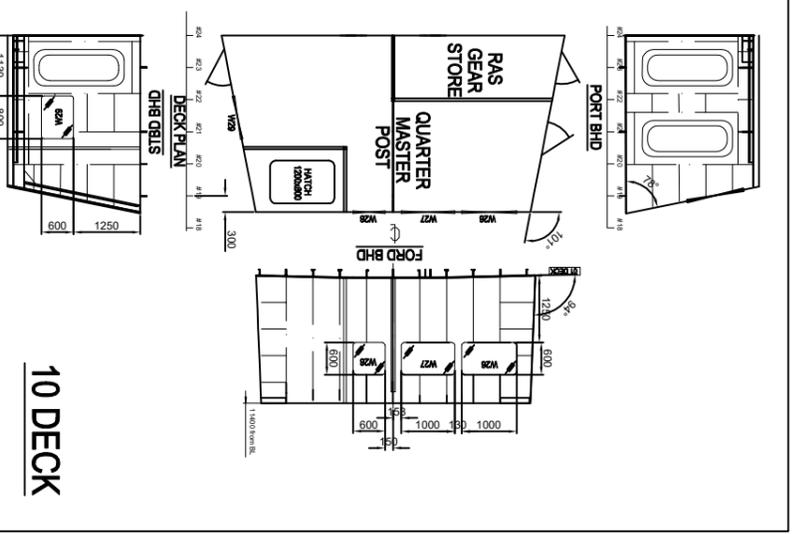
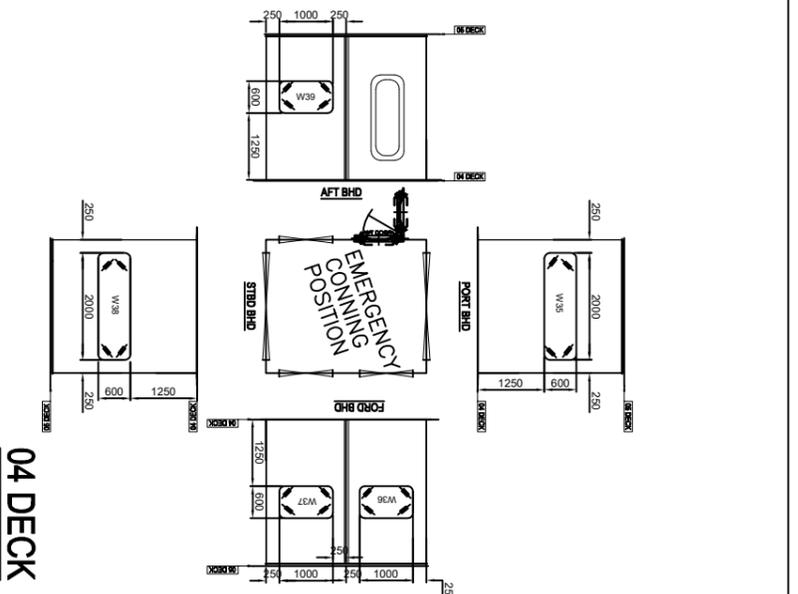




DECK PLAN
30 DECK



NOTE:-
 1. WINDOWS CLEAR RADIUS WILL BE 100mm
 2. THICKNESS OF GLASS WILL BE FINALIZED BY VENDOR AS PER NATIONAL/ INTERNATIONAL STANDARDS. DRAWINGS WITH WINDOW THICKNESS DETAILS WILL BE PROVIDED BY THE VENDOR SEPARATELY.
 3. WINDOWS FRAMES SHALL BE STAINLESS STEEL OR ABOVE CONSTRUCTION (FEV 4-INS NOTATION), REFER TO MVR 5D-4-41/2 AND OF BOLTING TYPE FLEXUAL STRENGTH : 199 MPa & FLEXUAL MODULUS : 73000 MPa
 4. WINDOWS PANEL SHALL BE OF CLEAR TOUGHENED GLASS HAVING FLEXUAL STRENGTH : 199 MPa & FLEXUAL MODULUS : 73000 MPa
 5. MCR WINDOWS (W31 & W32) ARE A60 CLASS WINDOWS.
 6. LSO WINDOW (W30) TO BE PROVIDED WITH CLEAR VIEW SCREEN.
 7. W26, W27 & W28 WILL BE PROVIDED WITH BOLTED EXTERNAL STORM COVER.
 8. DETAILS OF WINDOW, SCUTTLES & STORM COVER WILL BE SUBMITTED BY THE SELECTED VENDOR FOR REVIEW AFTER PLACEMENT OF ORDER.
 9. HEAVY DUTY WIPERS PROVIDED WITH AN INTERVAL FUNCTION AND CAPABLE OF OPERATING INDEPENDENTLY FROM EACH OTHER.
 10. 02 IN NOS. WHEEL HOUSE FRONT WINDOW (W8 & W10) WILL BE PROVIDED WITH SUNSCREENS & DE MISTING SYSTEM
 11. THE HEIGHT OF THE WINDOWS & SCUTTLES MAY BE MODIFIED TO SUIT IN-SITU REQUIREMENTS.
 12. W31 & W32 WILL BE PROVIDED WITH PORTABLE DEADLIGHT COVER.
 13. DETAILS OF A60 WINDOWS-CLEAR RADIUS & CUT OUT SIZE TO BE PROVIDED BY VENDOR.



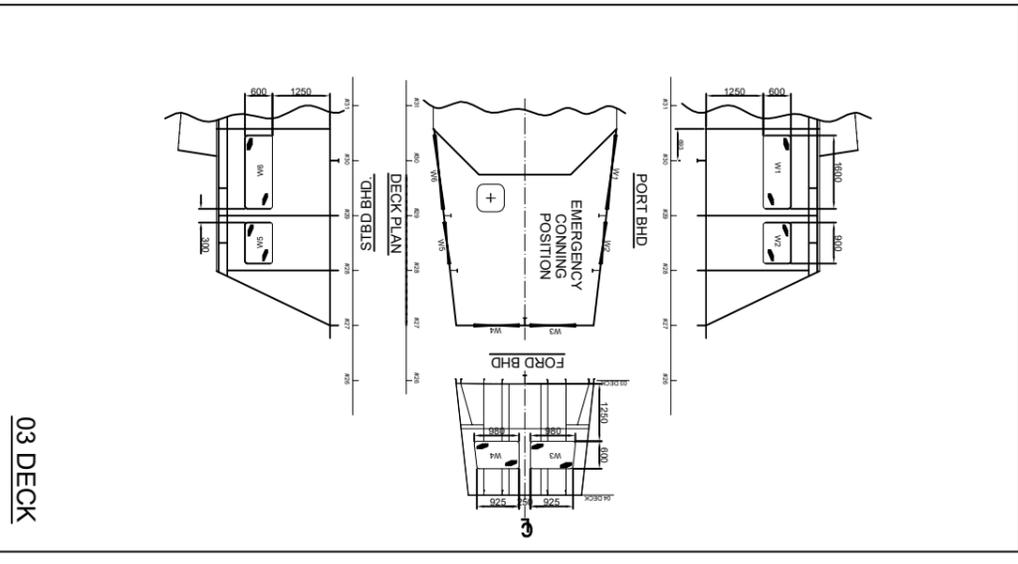
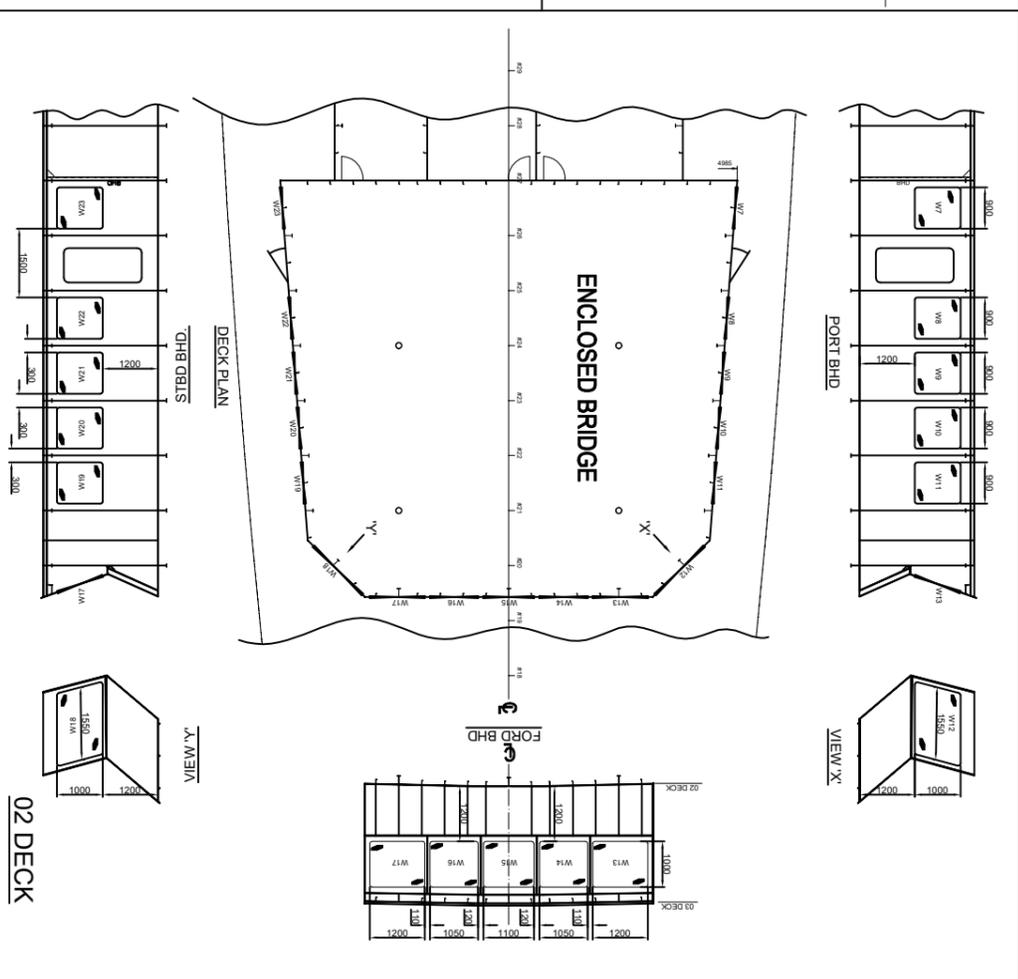
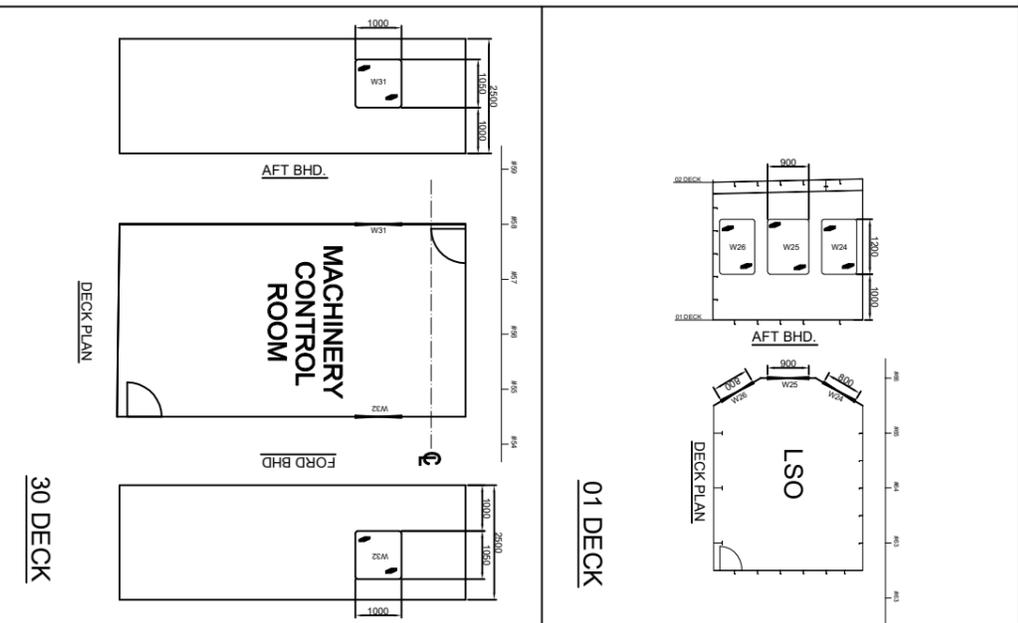
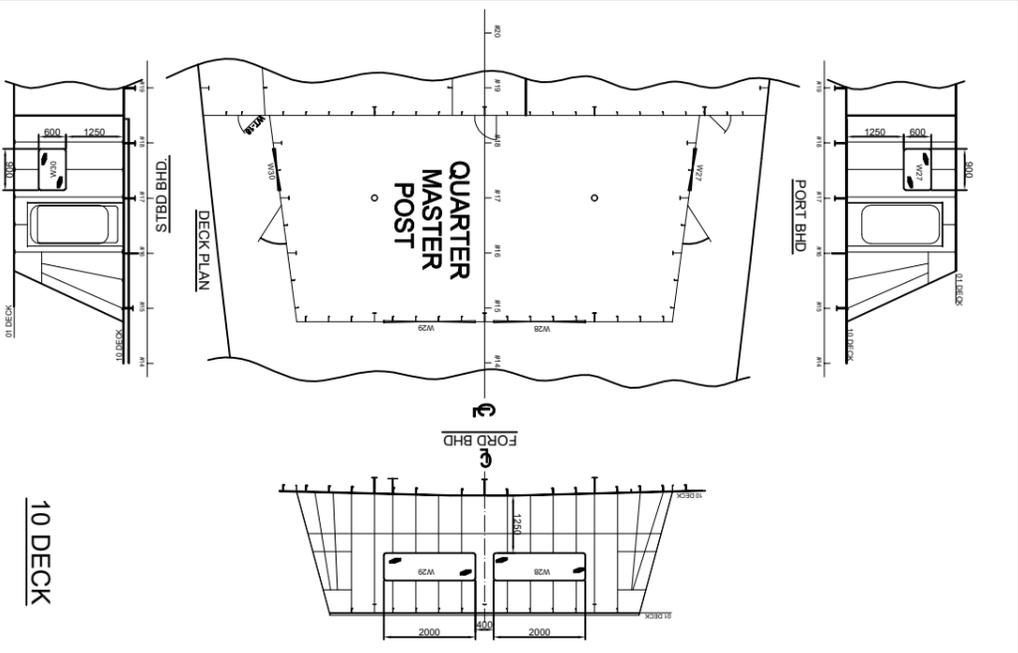
SR NO	DESCRIPTION	LEGEND	TYPE	CLEAR SIZE L x W x R	QTY	GLASS THICKNESS	ACCESSORIES	REMARKS
1	WHEEL HOUSE WINDOW-SB	W1	OPENABLE	900 x 1000 x R100	1	12 mm	-	WATER TIGHT
2	WHEEL HOUSE WINDOW-SB	W2	FIXED-BOLTED	600 x 1000 x R100	1	19 mm	-	WATER TIGHT
3	WHEEL HOUSE WINDOW-SB	W3	FIXED-BOLTED	1200 x 1000 x R100	1	19 mm	-	WATER TIGHT
4	WHEEL HOUSE WINDOW-SB	W4	FIXED-BOLTED	1500 x 1000 x R100	1	19 mm	WITH WIPER	WATER TIGHT
5	WHEEL HOUSE CORNER WINDOW-SB	W5	FIXED-BOLTED	1500 x 1000 x R100	1	19 mm	WITH WIPER	WATER TIGHT
6	WHEEL HOUSE CORNER WINDOW-SB	W6	FIXED-BOLTED	1200 x 900 x R100	1	25 mm	WITH WIPER	WATER TIGHT
7	WHEEL HOUSE FRONT WINDOW	W7	FIXED-BOLTED	1050 / 1200 x 1000 x R100	1	25 mm	WITH WIPER	WATER TIGHT
8	WHEEL HOUSE FRONT WINDOW	W8	FIXED-BOLTED	1050 x 1000 x R100	1	25 mm	WITH WIPER	WATER TIGHT
9	WHEEL HOUSE FRONT WINDOW	W9	FIXED-BOLTED	1120 x 1000 x R100	1	25 mm	WITH WIPER	WATER TIGHT
10	WHEEL HOUSE FRONT WINDOW	W10	FIXED-BOLTED	1050 x 1000 x R100	1	25 mm	WITH WIPER	WATER TIGHT
11	WHEEL HOUSE CORNER WINDOW-PB	W11	FIXED-BOLTED	1050 / 1200 x 1000 x R100	1	25 mm	WITH WIPER	WATER TIGHT
12	WHEEL HOUSE CORNER WINDOW-PB	W12	FIXED-BOLTED	1200 / 800 x 1000 x R100	1	25 mm	WITH WIPER	WATER TIGHT
13	WHEEL HOUSE WINDOW-PB	W13	FIXED-BOLTED	1500 x 1000 x R100	1	19 mm	WITH WIPER	WATER TIGHT
14	WHEEL HOUSE WINDOW-PB	W14	FIXED-BOLTED	1200 x 1000 x R100	1	19 mm	WITH WIPER	WATER TIGHT
15	WHEEL HOUSE WINDOW-PB	W15	FIXED-BOLTED	1200 x 1000 x R100	1	19 mm	WITH WIPER	WATER TIGHT
16	WHEEL HOUSE WINDOW-PB	W16	FIXED-BOLTED	600 x 1000 x R100	1	19 mm	WITH WIPER	WATER TIGHT
17	WHEEL HOUSE WINDOW-PB	W17	OPENABLE	900 x 1000 x R100	1	12 mm	-	WATER TIGHT
18	TRAINEE BRIDGE CORNER WINDOW-PB	W18	FIXED-BOLTED	1000 x 1000 x R100	1	15 mm	WITH WIPER	WATER TIGHT
19	TRAINEE BRIDGE CORNER WINDOW-PB	W19	FIXED-BOLTED	1000 x 1000 x R100	1	15 mm	WITH WIPER	WATER TIGHT
20	TRAINEE BRIDGE FRONT WINDOW	W20	FIXED-BOLTED	740 x 1000 x R100	1	15 mm	WITH WIPER	WATER TIGHT
21	TRAINEE BRIDGE FRONT WINDOW	W21	FIXED-BOLTED	1600 x 1000 x R100	1	16 mm	WITH WIPER	WATER TIGHT
22	TRAINEE BRIDGE FRONT WINDOW	W22	FIXED-BOLTED	1600 x 1000 x R100	1	16 mm	WITH WIPER	WATER TIGHT
23	TRAINEE BRIDGE FRONT WINDOW	W23	FIXED-BOLTED	740 x 1000 x R100	1	15 mm	WITH WIPER	WATER TIGHT
24	TRAINEE BRIDGE CORNER WINDOW-SB	W24	FIXED-BOLTED	1000 x 1000 x R100	1	15 mm	WITH WIPER	WATER TIGHT
25	TRAINEE BRIDGE CORNER WINDOW-SB	W25	FIXED-BOLTED	1000 x 1000 x R100	1	15 mm	WITH WIPER	WATER TIGHT
26	QUARTER MASTER POST FRONT WINDOW	W26	FIXED-BOLTED	1000 x 600 x R100	1	15 mm	WITH STORM COVER	WATER TIGHT
27	QUARTER MASTER POST FRONT WINDOW	W27	FIXED-BOLTED	600 x 600 x R100	1	15 mm	WITH STORM COVER	WATER TIGHT
28	QUARTER MASTER POST FRONT WINDOW	W28	FIXED-BOLTED	600 x 600 x R100	1	15 mm	WITH STORM COVER	WATER TIGHT
29	QUARTER MASTER POST CORNER WINDOW-SB	W29	FIXED-BOLTED	800 x 600 x R100	1	15 mm	WITH WIPER	WATER TIGHT
30	LSO WINDOW-FB	W30	FIXED-BOLTED	900 x 1200 x R100	1	15 mm	WITH WIPER	WATER TIGHT
31	MCR WINDOW-FB	W31	FIXED-BOLTED	1000 x 1050 x R100	1	55 mm	-	A-60 WATER TIGHT
32	MCR WINDOW-WAB	W32	FIXED-BOLTED	1000 x 1050 x R100	1	55 mm	-	A-60 WATER TIGHT
33	LSO WINDOW-ASB	W33	FIXED-BOLTED	800 x 1050 x R100	1	15 mm	WITH WIPER	WATER TIGHT
34	LSO WINDOW-ARB	W34	FIXED-BOLTED	800 x 1050 x R100	1	15 mm	WITH WIPER	WATER TIGHT
35	EMERGENCY CONNING POSITION-PORT BHD	W35	FIXED-BOLTED	2000 x 600 x R100	1	25 mm	WITH WIPER	WATER TIGHT
36	EMERGENCY CONNING POSITION-FORD BHD	W36	FIXED-BOLTED	1000 x 600 x R100	1	25 mm	WITH WIPER	WATER TIGHT
37	EMERGENCY CONNING POSITION-FORD BHD	W37	FIXED-BOLTED	1000 x 600 x R100	1	25 mm	WITH WIPER	WATER TIGHT
38	EMERGENCY CONNING POSITION-STBD BHD	W38	FIXED-BOLTED	2000 x 600 x R100	1	25 mm	WITH WIPER	WATER TIGHT
39	EMERGENCY CONNING POSITION-AFT BHD	W39	FIXED-BOLTED	1000 x 600 x R100	1	25 mm	WITH WIPER	WATER TIGHT

14. CURTAIN / ROLLER BLINDS WILL BE PROVIDED ON ALL WINDOWS OF BRIDGE, TRAINING BRIDGE & LSO.
 15. WINDOWS FASTENERS SHALL BE STAINLESS STEEL (SS-316)

DRAWING APPROVED BY A60 VIDE LETTER NO.IND0158614 DATED 28 DEC 2024.
 DRAWING APPROVED BY IRS VIDE LETTER NO.E-243116-322353 DATED 28 NOV 2024.

SCALE	DRAWN	CHECKED	SEC. HEAD	APP. NO.	DATE
MTS	16101	16128	01	04	2024

INDIAN COAST GUARD TRAINING SHIP



SR NO	DESCRIPTION	LEGEND	TYPE	CLEAR SIZE L x W x R	QTY	GLASS THICKNESS	ACCESSORIES	REMARKS
1	EMERGENCY CONNING POSITION WINDOW-PB	W1	FIXED-BOLTED	1800 x 600 x R100	1	25 mm	WITH WIPER	WATER TIGHT
2	EMERGENCY CONNING POSITION WINDOW-PB	W2	FIXED-BOLTED	900 x 600 x R100	1	25 mm	WITH WIPER	WATER TIGHT
3	EMERGENCY CONNING POSITION WINDOW-FB	W3	FIXED-BOLTED	925/980 x 600 x R100	1	25 mm	WITH WIPER	WATER TIGHT
4	EMERGENCY CONNING POSITION WINDOW-FB	W4	FIXED-BOLTED	925/980 x 600 x R100	1	25 mm	WITH WIPER	WATER TIGHT
5	EMERGENCY CONNING POSITION WINDOW-SB	W5	FIXED-BOLTED	900 x 600 x R100	1	25 mm	WITH WIPER	WATER TIGHT
6	EMERGENCY CONNING POSITION WINDOW-SB	W6	FIXED-BOLTED	1600 x 600 x R100	1	25 mm	WITH WIPER	WATER TIGHT
7	WHEEL HOUSE PB	W7	OPENABLE	900 x 1000 x R100	1	15 mm	-	WATER TIGHT
8	WHEEL HOUSE PB	W8	FIXED-BOLTED	900 x 1000 x R100	1	19 mm	-	WATER TIGHT
9	WHEEL HOUSE PB	W9	FIXED-BOLTED	900 x 1000 x R100	1	19 mm	WITH WIPER	WATER TIGHT
10	WHEEL HOUSE PB	W10	FIXED-BOLTED	900 x 1000 x R100	1	19 mm	WITH WIPER	WATER TIGHT
11	WHEEL HOUSE PB	W11	FIXED-BOLTED	900 x 1000 x R100	1	19 mm	WITH WIPER	WATER TIGHT
12	WHEEL HOUSE CORNER WINDOW-PB	W12	FIXED-BOLTED	1550 x 1000 x R100	1	25 mm	WITH WIPER	WATER TIGHT
13	WHEEL HOUSE FRONT WINDOW	W13	FIXED-BOLTED	1200 x 1000 x R100	1	25 mm	WITH WIPER	WATER TIGHT
14	WHEEL HOUSE FRONT WINDOW	W14	FIXED-BOLTED	1050 x 1000 x R100	1	25 mm	WITH WIPER	WATER TIGHT
15	WHEEL HOUSE FRONT WINDOW	W15	FIXED-BOLTED	1100 x 1000 x R100	1	25 mm	WITH WIPER	WATER TIGHT
16	WHEEL HOUSE FRONT WINDOW	W16	FIXED-BOLTED	1050 x 1000 x R100	1	25 mm	WITH WIPER	WATER TIGHT
17	WHEEL HOUSE FRONT WINDOW	W17	FIXED-BOLTED	1200 x 1000 x R100	1	25 mm	WITH WIPER	WATER TIGHT
18	WHEEL HOUSE CORNER WINDOW-SB	W18	FIXED-BOLTED	1550 x 1000 x R100	1	25 mm	WITH WIPER	WATER TIGHT
19	WHEEL HOUSE SB	W19	FIXED-BOLTED	900 x 1000 x R100	1	19 mm	WITH WIPER	WATER TIGHT
20	WHEEL HOUSE SB	W20	FIXED-BOLTED	900 x 1000 x R100	1	19 mm	WITH WIPER	WATER TIGHT
21	WHEEL HOUSE SB	W21	FIXED-BOLTED	900 x 1000 x R100	1	19 mm	WITH WIPER	WATER TIGHT
22	WHEEL HOUSE SB	W22	FIXED-BOLTED	900 x 1000 x R100	1	19 mm	WITH WIPER	WATER TIGHT
23	WHEEL HOUSE SB	W23	OPENABLE	900 x 1000 x R100	1	15 mm	-	WATER TIGHT
24	LSO WINDOW-APB	W24	FIXED-BOLTED	800 x 1200 x R100	1	15 mm	WITH WIPER	WATER TIGHT
25	LSO WINDOW-AB	W25	FIXED-BOLTED	900 x 1200 x R100	1	15 mm	WITH WIPER	WATER TIGHT
26	LSO WINDOW-ASB	W26	FIXED-BOLTED	800 x 1200 x R100	1	15 mm	WITH WIPER	WATER TIGHT
27	QUARTER MASTER POST FRONT WINDOW	W27	FIXED-BOLTED	900 x 600 x R100	1	15 mm	-	WATER TIGHT
28	QUARTER MASTER POST FRONT WINDOW	W28	FIXED-BOLTED	2000 x 600 x R100	1	15 mm	WITH STORM COVER	WATER TIGHT
29	QUARTER MASTER POST FRONT WINDOW	W29	FIXED-BOLTED	2000 x 600 x R100	1	15 mm	WITH STORM COVER	WATER TIGHT
30	QUARTER MASTER POST SB	W30	FIXED-BOLTED	900 x 600 x R100	1	15 mm	-	WATER TIGHT
31	MCR WINDOW-AB	W31	FIXED-BOLTED	1000 x 1050 x R100	1	55 mm	-	A-60 WATER TIGHT
32	MCR WINDOW-FB	W32	FIXED-BOLTED	1000 x 1050 x R100	1	55 mm	-	A-60 WATER TIGHT

NOTE:-
 1. WINDOWS CLEAR RADIUS WILL BE 100mm
 2. THICKNESS OF GLASS WILL BE FINALIZED BY VENDOR AS PER NATIONAL/ INTERNATIONAL STANDARDS. DRAWINGS WITH WINDOW THICKNESS DETAILS WILL BE PROVIDED BY THE VENDOR SEPARATELY.
 3. WINDOW FRAMES SHALL BE STAINLESS STEEL OR ABOVE CONSTRUCTION APPROVED MATERIAL (FEV-1 NS NOTATION). REFER TO MVR 5D-4/42 AND OF BOLTING TYPE
 4. WINDOWS PANEL SHALL BE OF CLEAR TOUGHENED GLASS HAVING FLEXUAL STRENGTH : 199 MPa & FLEXUAL MODULUS : 73000 MPa
 5. MCR WINDOWS (W31 & W32) ARE A60 CLASS WINDOWS.
 6. LSO WINDOW (W25) TO BE PROVIDED WITH CLEAR VIEW SCREEN.
 7. W27, W28, W29 & W30 WILL BE PROVIDED WITH BOLTED EXTERNAL STORM COVER.
 8. DETAILS OF WINDOW, SCUTTLES & STORM COVER WILL BE SUBMITTED BY THE SELECTED VENDOR FOR REVIEW AFTER PLACEMENT OF ORDER
 9. HEAVY DUTY WIPERS PROVIDED WITH AN INTERVAL FUNCTION AND CAPABLE OF OPERATING INDEPENDENTLY FROM EACH OTHER.
 10. 02 IN NOS WHEEL HOUSE FRONT WINDOW (W14 & W16) WILL BE PROVIDED WITH SUNSCREENS & DE MISTING SYSTEM
 11. THE HEIGHT OF THE WINDOWS & SCUTTLES MAY BE MODIFIED TO SUIT IN-SITU REQUIREMENTS.
 12. W31 & W32 WILL BE PROVIDED WITH PORTABLE DEADLIGHT COVER.
 13. DETAILS OF A60 WINDOWS-CLEAR RADIUS & CUT OUT SIZE TO BE PROVIDED BY VENDOR
 14. CURTAIN / ROLLER BLINDS WILL BE PROVIDED ON ALL WINDOWS OF BRIDGE, TRAINING BRIDGE & LSO.
 15. WINDOWS FASTENERS SHALL BE STAINLESS STEEL. (SS-316)
 16. WINDOW FRAME ARE TO BE ATTACHED BY THROUGH BOLTS. A-60 WINDOW (31 & 32) NO. MAY BE WELDED TYPE.
 17. WIPERS ARE PREFERABLY PROVIDED WITH AN INTERVAL FUNCTION AND FRESH WATER WASH SYSTEMS.

DRAWING APPROVED BY ABS WIDE LETTER NO.W00538779 DATED 20 AUG 2025.
 DRAWING APPROVED BY IRS WIDE LETTER NO.E-268876-358626 DATED 01 SEPT 2025.

CLASSIFICATION		TITLE	
RESTRICTED		LOCATION OF WINDOWS AND SIDE SCUTTLES	
SCALE	DATE	NO. OF SHEETS	TOTAL SHEETS
NTS	27/09/25	01	03
CLIENT		DRAWING NUMBER	
Magazoo Dock Shipbuilders Limited		1.6.28.01	
INDIAN COAST GUARD		REV. NO.	
NGOPV		01	
PROJECT		DATE	
Magazoo Dock Shipbuilders Limited		27/09/25	
INDIAN COAST GUARD		27/09/25	
NGOPV		27/09/25	