

DEVELOPMENT OF GREENFIELD PORT AT VADHAVAN

Package -1A : Breakwater Workshop

July 2025

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SALIENT FEATURES - DEVELOPMENT

- Vadhavan Port is planned to be developed by JNPT (Jawaharlal Nehru Port Trust) and MMB (Maharashtra Maritime Board) as Joint Venture Project with equity share of 74% & 26% respectively.
- Will be developed in two Phases.
- Common Infrastructure/ Enabling works – on Landlord model
- Operational Terminals and back yard on PPP basis.
- Landlord Model - Basic infrastructure of the port necessitating upfront investment such as, breakwater, reclamation & shore protection bund, rail and road linkages, operational power and water and common infrastructure and services will be developed by the Port.
- Cargo handling infrastructure - developed and operated by the investing agencies through Concession Agreements under PPP route.
- Backup Yard – Development through PPP model – Hybrid Annuity Model

Statutory Approvals

S. No.	Approvals / Clearances	Agency concerned	Availability (Y/N)
1.	In-Principle Approval for setting of Major Port at Vadhavan in Maharashtra	MoSPW	Y
2.	Declaration of port limits under Indian Port Act 1908	MoPSW	Y
3.	Approval for port limits	Govt of Maharashtra	Y
4.	Environmental Clearances (EC)	MoEF&CC To be obtained by VPPL on behalf of Ministry of RT&H/ Railways with assistance of State Governments	Y
5.	Forest Clearance	To be obtained by VPPL on behalf of Ministry of RT&H/ Railways with assistance of State Governments	In Progress
6.	Land Acquisition	Land acquisition for road and rail ROW by MoRTH/ NHAI	In progress
7.	NOC for development of port	Tarapur Atomic Power Station (TAPS)by VPPL	Y
8.	Mining in offshore for Non-Mineral (Sea Sand)	Ministry of Mines by VPPL	Y
9.	Leasing of land for Minor mineral mining (Stone Quarry)	State Government by VPPL	In Progress
10.	National Security	For Selection of Concessionaire/ Contractors	After Bidding
11.	No objection certificate for Development of port	DTEPA by VPPL	Y
12.	Water availability Commitment	Maharashtra Jeevan Pradhikaran, GoMP by VPPL	Y
13.	Power availability Commitment	Maharashtra State Electricity Distribution Co Ltd. by VPPL	Y
14.	Road Connectivity to Port	NHAI	Y
15.	Rail Connectivity to Port	Indian Railways	Y

Terminal/berth requirements

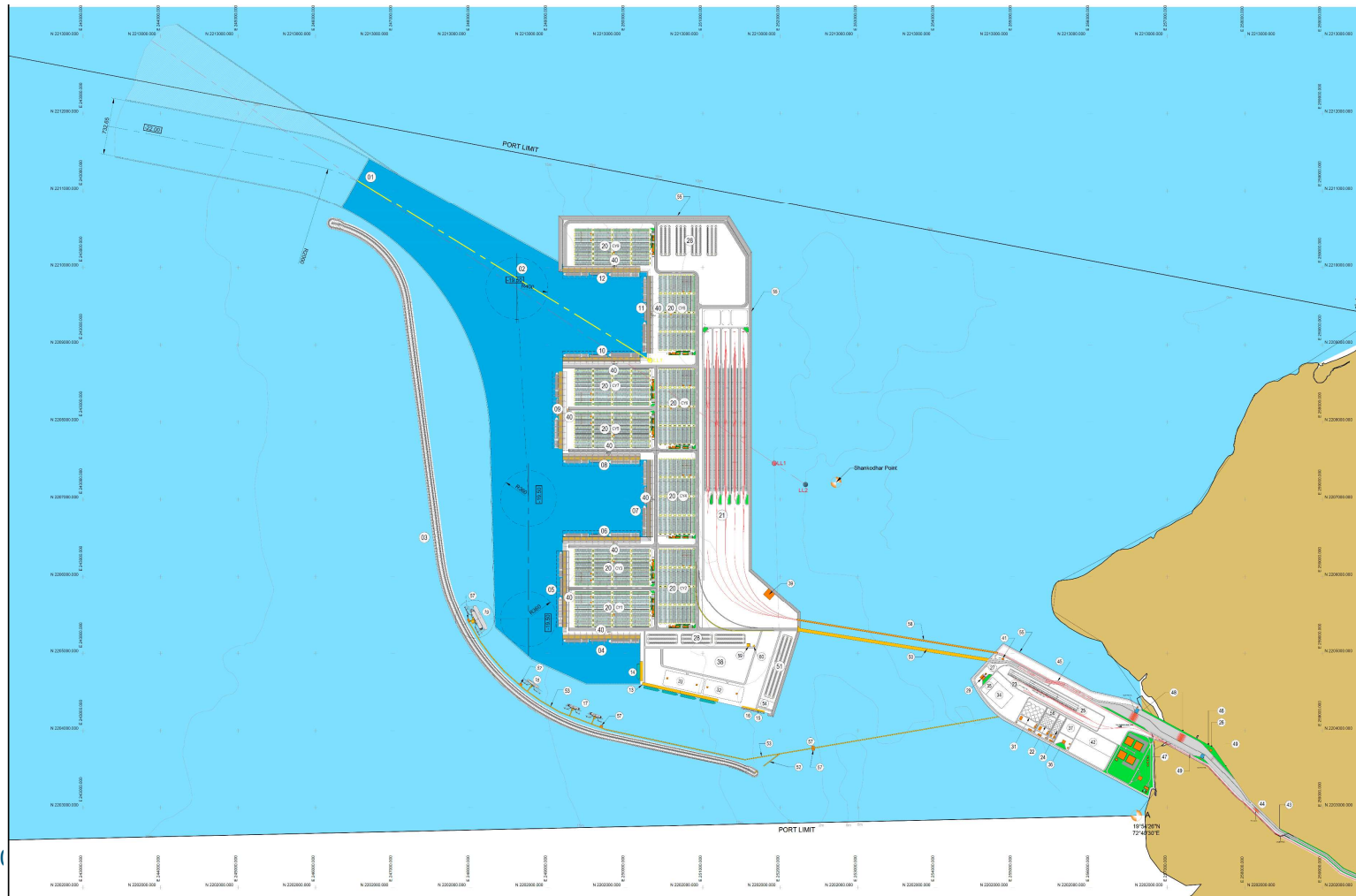
Berths/ Terminals	Berth/quay length (m)	Ship max draft (m)	Phase 1	Phase 2	Total
Container quay (1,000 m each)	1,000	16.5	4	5	9
Multi-purpose berths (250 m each)	250	10.5	3	1	4
Liquid bulk berths	200	9.5	2	0	2
Bulk Liquid	280	10.5	1	0	1
Bulk Liquid	400	12.0	1	0	1
Ro-Ro berth	250	11.3	1	0	1
Coastguard berth			1	0	1

Essentially a large container Port for deep-draught Container Vessels

Project Envisioned to have the following components

VPPL (Landlord)	Concessionaires	External Govt Agencies Components
<ol style="list-style-type: none"> 1. Offshore breakwater of total length of 10.14 km 2. Near Shore reclamation and shore protection bund 3. Approach Trestle and connectivity to Break water 4. Port craft/Tug berth of 200 m and Aids to Navigation 5. Road inside the port: 33.4 km 6. Pavements inside the port. 7. Miscellaneous Buildings with Port area & 8. Land acquisition 	<ol style="list-style-type: none"> 1. Total Reclamation area inside the port: 1,227 hectares by Dredging in Port area and at offcoast Daman. 2. Container terminals including yard storage, equipment, internal terminal pavements, drainage, utilities networks, etc., with berth length of 4,000 m (4 berths; each of 1,000 m length) capable of handling upto 24,000 TEU vessels with 24,000 TEU design container vessels. 3. Multipurpose berths of 750 m (3 berths; each of 250 m) including equipment, storage yard / shed 4. One Roll-On-Roll-Off (Ro-Ro) berth of 250 m including storage and onshore facilities. 5. Three Liquid berths with service platform, mooring and breasting dolphin arrangement including pipelines and tankfarm. 	<ol style="list-style-type: none"> 1. External road connectivity – by National Highways Authority of India (NHAI) 2. External Rail Connectivity and linkage to Indian Railways and Dedicated Freight Corridor (DFC) – by Western Railways (WR) 3. External utilities <ol style="list-style-type: none"> (i) Water supply – by Maharashtra Jeevan Pradhikaran (MJP) (ii) Power supply – by Maharashtra State Electricity Transmission Corporation Limited (MSETCL)

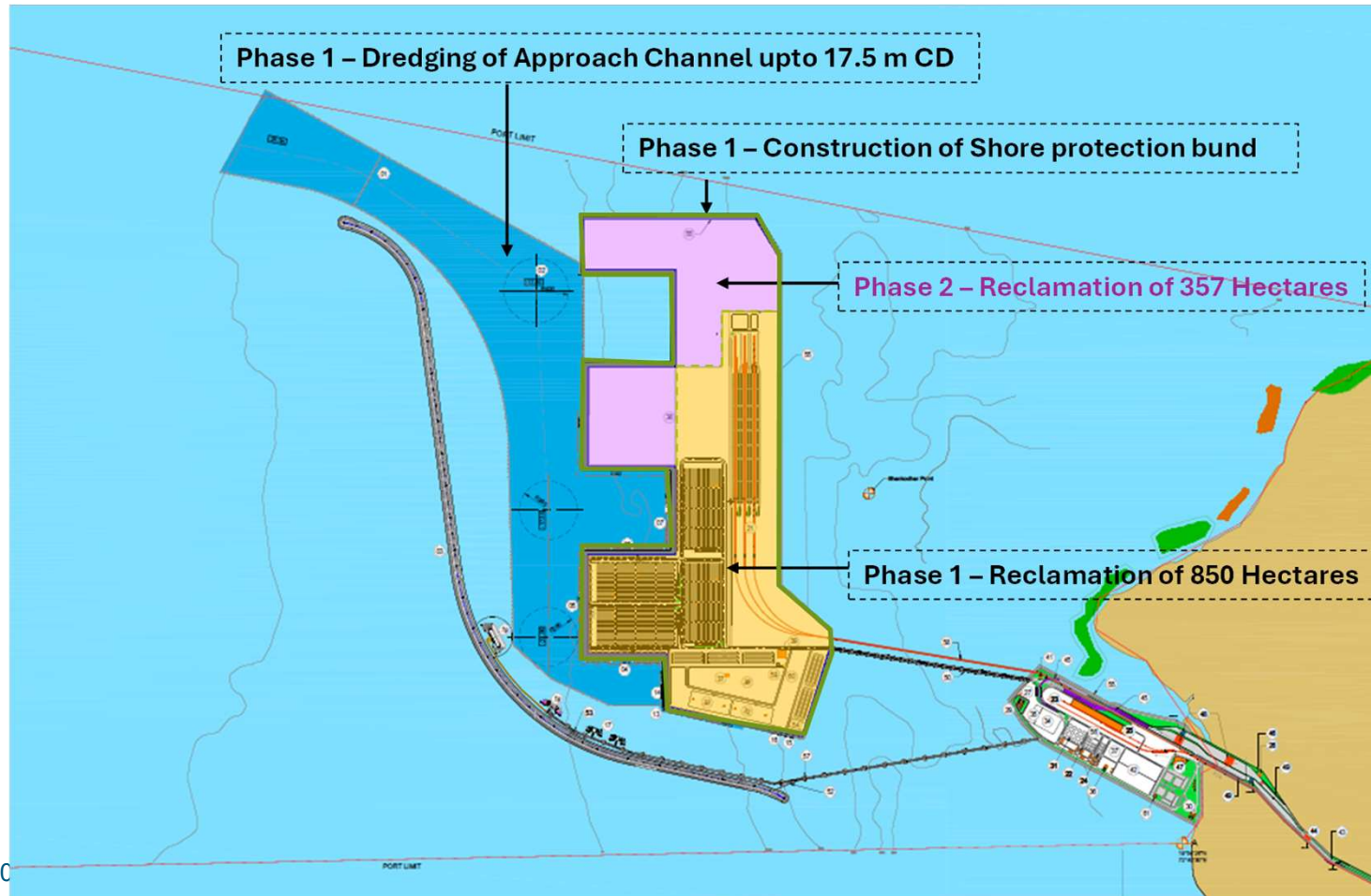
VADHAVAN PORT MASTER PLAN LAYOUT



July 20

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Phase 1 Construction



July 20

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Landlord Bid Packages

Packages	Description	Component
Package 1	Marine Civil Works Breakwater, Pipeline service trestle for Island jetties, Trestle to breakwater head, Approach road bridge for ITV movements and TUG berths	Breakwater Approach Trestles and Tug Berth
Package 2	Nearshore Reclamation and Shore Protection bund	Awarded to M/s ITD – Dec 24
Package 3	Onshore Civil Works and Utilities Buildings, Pavements/Internal roads, Flyover, Underpass and Utilities	Port Buildings Internal Roads Flyover and Gate Complex Utilities and others
Package 4	External Road Connectivity to Port – NHAI	Road Connectivity – By NHAI
Package 5	Rail Connectivity to Port – DFCC	Rail connectivity – western Railways
Package 6	External Utilities – MJP, MSETCL Water and Power supply to the port	Essential common utilities

PPP Packages

PPP Components – Under HAM	PPP Components - Phase 1
Dredging, Offshore Reclamation and Shore Protection bund	Container Terminal 1
	Container Terminal 2
	Container Terminal 3
	Container Terminal 4
	Multipurpose Terminal
	Liquid Bulk
	Liquid Bulk Terminal (2 no.)
	RORO Terminal

RFQ Criteria for Breakwater (Typical Schedule)

- Bidding process
 - Single stage process - RFP
- Schedule of RFP process
 - Issue of RFP
 - July/ Aug 2025
 - Last date of Queries
 - 14 days from issue of RFP
 - Pre-Application Conference
 - 21days from issue of RFP
 - Response
 - 35 days from RFP
 - Application Due Date
 - 14days from issue of Replies
 - Announcement
 - After due process



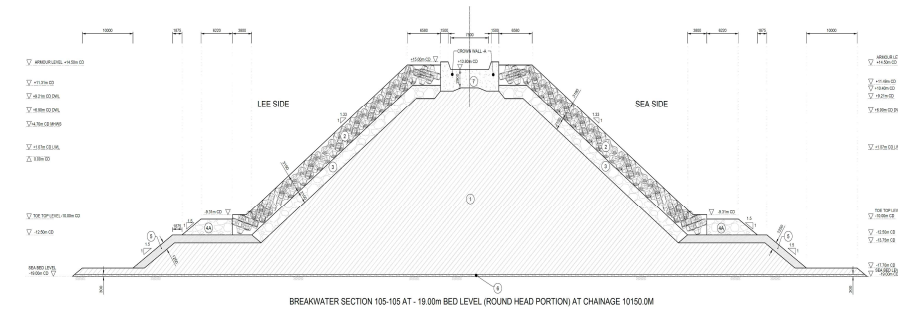
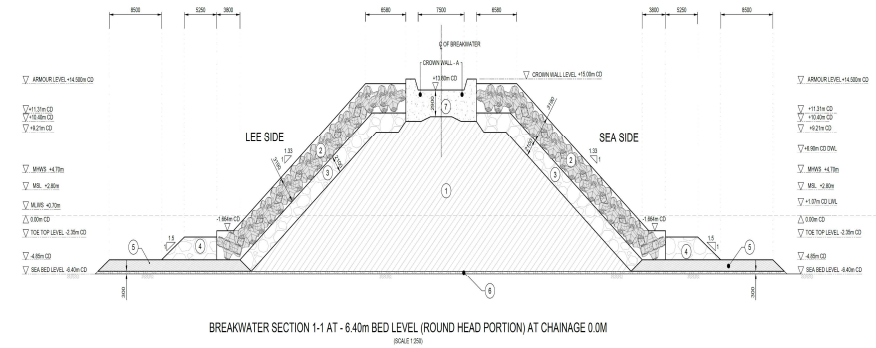
Length 10140m

July 2025

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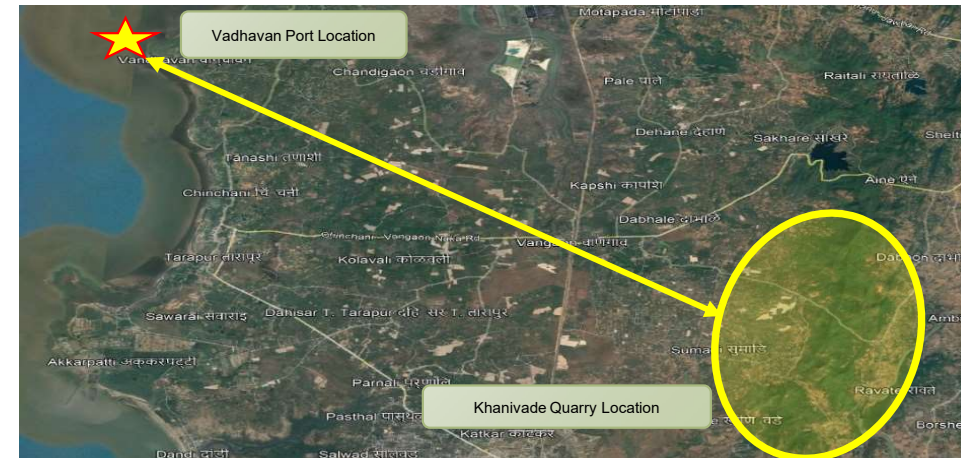
Package 1A - Breakwater

- ❑ Offshore Breakwater of 10.14 km is proposed for the port
- ❑ Water depths
 - Varying from 6 m CD at south roundhead to 19 m CD at the north roundhead
- ❑ Armour Units
 - Accropode™ II - 11 cum – Trunk
 - Accropode™ II - 13 cum – Round Head
- ❑ Construction using marine spread - 52 months



Sources of Materials - Rocks

- ❑ Rock to be sourced from identified quarries located at 15 – 20 km
- ❑ Initial 10% quantum – to be sourced by the Contractor
- ❑ Quarry License – by Employer
- ❑ Quarry Permits – by Contractor
- ❑ Total rock quantity – \approx 31 million tonnes
- ❑ Concrete Armour (Accropode II)
 - 11 cum – ~ 54,000 units
 - 13 cum – ~2700 units.



Guidelines



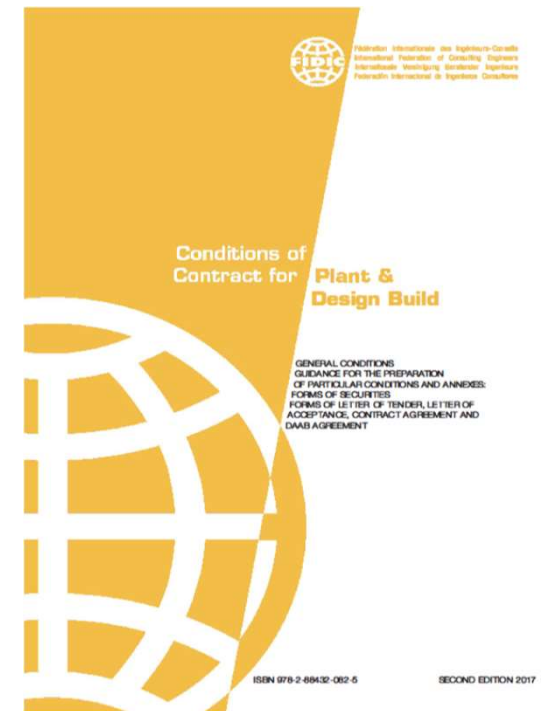
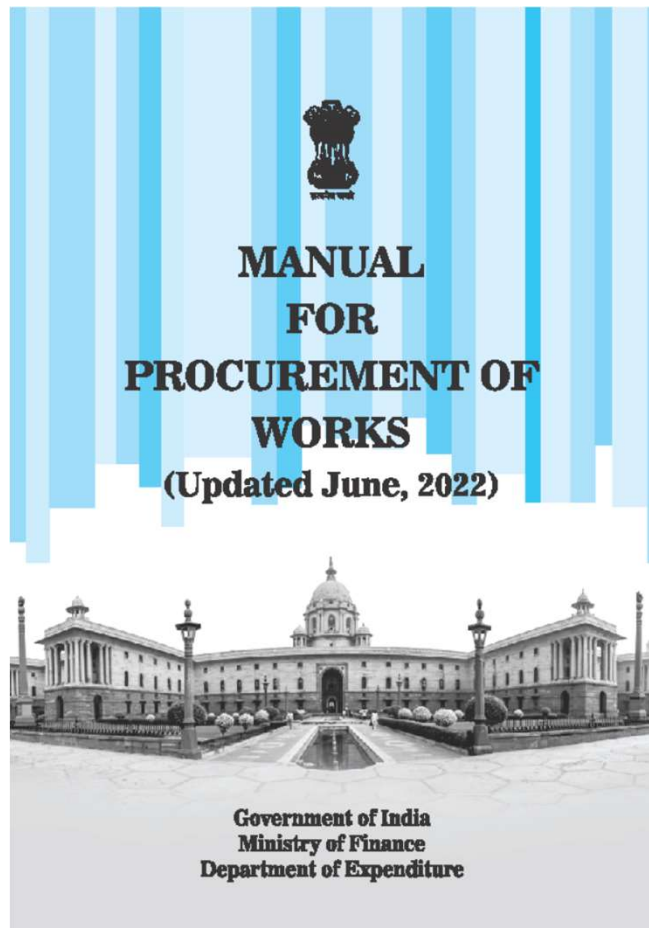
समर्थता
Government Of India

GENERAL FINANCIAL RULES 2017



Updated up to 31.07.2024

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And other Govt.
& CVC etc

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Package 1A – Breakwater

- ❑ Tender Design and Model studies – completed.
- ❑ Detailed / Construction Engineering Design - Contractor
- ❑ Third Party Check/ Proof Consultancy check (by reputed Institutes)
- ❑ High level review by Engineer
- ❑ Alternate design – permitted – under Value Engineering
 - Review
 - Adoption and ownership of the design by the Contractor
 - Consultation/ Approval by CWPRS or other agency approved by Employer/ Engineer for studies
 - Proven track record of alternate Designs
- ❑ Interface with other Contractors/ Agencies working within the vicinity/ Site
- ❑ Minimum Local Disturbance and QHSE/ EMP and Monitoring Environment – EC norms/ permits
- ❑ Contract based on FIDIC Yellow book 2017

Qualification Criteria (*Typical*)

- ❑ Eligible – Indian or Foreign Firms having permit to conduct business in India
- ❑ Financial Criteria
 - Liquidity/ Working Capital – 5 months of Cashflow
 - Average Annual Turnover – at least 30% of project cost over the last 5 years
 - Net Profit – Positive 3 out of 5 FYs
 - Net Worth – Positive in the last FY
 - Residual Bid Capacity – 100% of project cost
 - Solvency – 40% of project cost.

Qualification Criteria (*Typical*)

□ Technical Criteria

- Similar work - Last 20 years
- Project which contains one or more elements.
 - Construction of Port/ Terminals (through marine mode)
 - Offshore Breakwater / Groynes/ Sea wall protection system
 - Berths, Jetties, Quay walls or similar structures used for ship berthing, sea bridges, harbour links, wharves, docks, dry docks
 - Construction of other Port infrastructures through marine mode
 - **1 work of 80% of project cost or**
 - **2 Works of 50% of project cost each or**
 - **3 works of 40% of project cost each**
- Exclusive on shore works at Port not considered.

Qualification Criteria (*Typical*)

□ Technical Criteria

■ General - Last 7 FY - In any one year

- General Construction experience – 35% of project cost
- Of which 50% shall be from Civil Works

■ Specific Experience (Core activity) – Last 20 Years

- Breakwater Construction – beyond 5m water depth min. length 2000m
- Quarrying Experience – 2 Million Ton (Subcontractor's experience allowed)

Qualification Criteria (*Typical*)

□ Equipment

■ Four categories – Minimum Requirement

■ HSE

- Oil containment booms (oil spill system) floating First Aid Crafts, Diver/ rescue team and equipment etc.

■ Construction Equipment – Must own category

- Jack Up Barges/ Platform, Flat Barges/ Hopper Barge, Tugs etc.

■ Construction Equipment – On Lease Terms (confirmed arrangement to deploy) Passenger Boat/ Flat barges (rock and Concrete armour operations), tugs

■ Construction Equipment - Undertaking to deploy

- Cranes/ Dozers/ Dumpers Weigh Bridges

□ Specific Site Manpower – with minimum qualification and experience

Qualification Criteria (*Typical*)

- Additional requirements for JV
 - Joint venture to be registered in India (maximum 3 members)
 - Power of Attorney in favor of Lead Member
 - Lead member / Member - To fulfill the required Qualifying
 - Lead Member – Minimum 50% of Financial Parameters
 - Members – Minimum 25% of Financial Parameters
 - Specific Technical – In proportion to the share of JV Agreement
 - All Members Individually – similar work of 40% of project cost
 - Lead Member – Controlling stake
 - Jointly to meet Minimum Qualifying Criteria

Points for Consideration

- ❑ Approach to the site
 - Access road Development – by Employer for Quarry Operations
 - Road maintenance by Contractor, other Contractors will also use the facility
- ❑ Preparatory works for implementation
 - Temporary works for implementation - Construction jetty (load out points)
 - Interface among various contractors
 - Concrete Element Casting Yard, Quarry Stock Yard
- ❑ Design based on Employer's Requirement - No variation expected
- ❑ Well versed with the site conditions and any further investigations will be the responsibility of the contractor

Thank You

