



PORT OF CHENNAI

AN ISO 9001 : 2000 ISPS COMPLIANT PORT
THE EMERGING HUB PORT OF THE INDIAN SUB CONTINENT

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**CONCESSION FOR OPERATING CONTAINER SHUTTLE
SERVICES (MARINE HIGHWAY) BETWEEN CHENNAI PORT
AND KAMARAJAR PORT/ L&T – KATTUPALLI PORT
THROUGH BARGE/SMALL VESSEL FOR A PERIOD OF 3
YEARS**

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TRAFFIC DEPARTMENT
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CHENNAI PORT TRUST

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1. GENERAL DESCRIPTION & BACKGROUND

1.1. GENERAL

The Chennai Port is the second largest container handling Port in the country. It handles about 24.80% of the total container traffic handled in the India. Majority of containers from Chennai are moved by roads connecting the Ports in the hinterland. This leads to a heavy congestion at the roads and thereby inefficient handling of containers. To increase the efficiency of container handling and to avoid heavy congestion at the roads, Chennai Port has planned to “Develop Marine Highway along East Coast Connecting Chennai and Kamarajar Port / L&T Port, Kattupalli extended upto kakinada for barge/small vessel movement of containers for a lease period of 3 years” to transport containers through barges.

1.1.1. The Port has planned to develop more container handling facilities in near future as per the Feasibility report carried out by the Chennai Port Trust in association with Kamarajar Port Limited established that there is enough potential to transport containers to and fro Chennai and Kamarajar Port / L&T Port, Kattupalli extended upto kakinada and also other major and minor Ports and provide excellent Logistic support for import and export.

1.1.2. Chennai Port Trust (ChPT) and Kamarajar Port Limited (KPL) now intend to jointly grant exclusive license to a operator/concessionaire for Operating barge service between ChPT & Kamarajar Port / L&T Port, Kattupalli extended upto kakinada for container vehicles.

1.2 BACKGROUND

1.2.1 Chennai Port formerly known as Madras Port is the third oldest among the 12 major ports of India. With over 132 years of history it has always

served as a prominent gateway for trade and commerce in Southern India. Among the 12 major ports of India, Chennai port is presently the third largest in terms of traffic throughput but is second smallest in terms of land area, encompassing only 587 acres (441 acres in inner harbour and 146 acres in outer harbour). The Port serves the geographical regions of Tamil Nadu, Pondicherry, South Andhra Pradesh and parts of Karnataka and has emerged as hub on the east coast of India.

The Chennai port can be broadly divided into South, Central, East and North zones and fishing harbour. The Port has 26 alongside berths, including 21 deep-draft berths and 2 oil jetties, in the 3 docks, viz., Dr. Ambedkar Dock, Jawahar Dock, and Bharathi Dock along with two container terminals with draft ranging from 12.0–16.5 m (39–54.1 ft). Dr. Ambedkar Dock has 11 berths including a container terminal with 3 berths, Jawahar Dock has 6 berths, and Bharathi Dock has 7 berths (2 for oil and 1 for iron ore and a container terminal with 4 berths) and the moorings has 1 berth. The port is equipped to handle all types of cargoes ranging from break-bulk, dry bulk, Containers, Cars to Liquid bulk. The containers handled in Bharathi Dock and Dr. Ambedkar Dock in the year 2012-13 is 881977 TEUs and 655187 TEUs respectively.

Presently, the Port has two container terminals operated by the Concessionaires CCTPL and CITPL.

CHAPTER 2

METEOROLOGICAL AND CLIMATOLOGICAL DATA

During the Northeast Monsoon viz., between October and January, the direction of wind is generally NE and NNE. During depressions in NE Monsoon, the wind velocity goes upto 50 Km/Hr and upto 105 Km/Hr during cyclones of duration 2 to 3 days. Gusts of 160 Km/Hr have been occasionally experienced.

i. MONTHLY RAINFALL

Average Annual	= 1233 mm
Average Monthly	= varies from 7 mm in April to 308 mm in November

ii. TIDAL INFORMATION

The tides are semi-diurnal and average interval between high and low tides is about 6 hours. The mean tidal range at Chennai is of the order of 0.914 m to 1.219 m at spring and between 0.805 m to 0.610m at neap tides, corresponding slack water period being 1.30 to 2.00 hours and 2 to 2.30 hours at spring and neap tides respectively.

Mean High Water level springs	+ 1.15 m
Mean High Water Neaps	+ 0.84 m
Mean Low water level springs	+ 0.14 m
Mean Low Water Neaps	+ 0.40 m
Indian Springs High Water level	+ 1.52 m
Indian Springs Low Water Level (CD)	+ 0.00 m

iii. Monthly Sea Level Pressure (in millibars)

January	1014
February	1013
March	1011

April	1008
May	1005
June	1003
July	1004
August	1006
September	1007
October	1009
November	1011
December	1013

iv. Monthly Temperatures

Mean Daily Temperature = Max: 28° C - 37° C
= Min: 21° C – 28° C

Maximum ever recorded = 43.6° C

Minimum ever recorded = 15.6° C

v. Monthly Mean Relative Humidity

<u>Month</u>	<u>Relative Humidity</u>	
	<u>08.00 Hrs</u>	<u>17.00 Hrs.</u>
January	84%	67%
February	83%	65%
March	79%	66%
April	68%	69%
May	66%	65%
June	60%	59%
July	67%	60%
August	73%	64%
September	75%	68%
October	83%	74%
November	85%	74%
December	84%	70%

vi. Monthly Wind Speed

Monthly Mean Wind Speed at Chennai Port

<u>Month</u>	<u>Wind speed (Km/Hr)</u>	<u>Direction</u>
January	18.2	N E

February	15.5	NE
March	19.3	SE
April	25.0	SSE
May	24.9	S
June	23.4	S
July	21.7	S
August	20.9	SSW
September	17.9	SE
October	16.8	NE
November	22.6	NE
December	20.2	NE

vii. The frequency and intensity of cyclones experienced so far:

The area had the influences of 26 storm and 26 severe storms in the period of 88 years (1890 to 1978) which suggests the probability of occurrence of storms and severe storms once in 1.693 years.

Out of 42 depressions, 26 storms and 25 severe storms 8 depressions 9 storm and 11 severe storms, had tracks or very close to Chennai.

Dates of severe storms that have crossed Tamil Nadu – Andhra Coast in the vicinity of Chennai.

1977	Two	12.11.77 and 19.11.77
1979	One	11.05.79 to 12.05.79
1984	Two	12.11.84 and 01.12.84
1985	One	11.12.85 to 13.12.85
1987	One	31.10.87 to 03.11.87
1989	One	06.11.89 to 09.11.89
1990	One	05.05.90 and 09.05.90
1991	One	13.11.91 to 15.11.91
1993	One	03.12.93 and 04.12.93
1994	One	30.10.94 and 31.10.94
1996	One	03.12.96 to 06.12.96
2000	One	28.11.2000 and 29.11.2000
2002	One	24.12. 02 to 26.12.02
2003	Three	12.05.03 to 20.05.03 26.10.03 to 28.10.03 11.12.03 to 16.12.03
2004	One	02.10.04 to 05.10.04

2005	Two	13.01.05 to 18.01.05 21.11.05 to 11.12.05
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viii. Monthly Waves

(a) Wave direction:

Predominant direction during

South West Monsoon 145° from North

Predominant direction during

North East Monsoon 65° from North

(b) Wave height and wave period:

Waves in the deep water around Chennai Harbour ranging from 0.4 m to 2.0 m have been experienced and, the predominant being 0.4 m to 1.2 m with wave periods predominantly in the order of 4 to 10 seconds.

During cyclone season, waves of height exceeding 2.5 m are common. Long period wave upto 30 seconds are experienced rarely.

ix. Current

The following details of current prevalent off the Coromandel Coast apply particularly to the vicinity of Chennai.

In January, the current sets South Westward or Northward at a rate of from 1 to 1½ knots, but it is irregular in February (Northward parallel with the Coast 1½ Knots). In March, April and May Northward from 1 to 3 Knots, but in May from 1 to 2 Knots. In June variable but some times southward and weak in July and in August southward or against the wind from 2 to 3 knots at times. In September South and Southwestwards and in October Southerly along the coast. In November and December Southwesterly and southerly along the Coast.

x. Swells

During north-east monsoon period (October to January) the swells in the Sea outside the harbour vary from 0.91 to 1.22 m and

during south west monsoon (April to June) 0.61 to 0.91 m during Cyclones.

xi. Fog

January to March: 1 day
April to September free from Fog.

xii. Monthly Visibility

Less than ½ N mile

January 1 day

February 1 day

March 1 day

April to September Nil

September to December

Less than 1 N Mile Nil

Less than 2 N Mile Nil

Less than 10 N Mile Nil

xiii. Monthly Density

Mean value for harbour waters - 1.020 to 1.021 gm/ml

Mean density value of adjoining

Coastal water - 1.025 gm./ml

xiv. Properties of Shore and Bed Materials

Wet soil Specific Gravity : Ranging from 1.50 to 1.80

Grain size : Range between 60 to 200 microns

Grain Density : 1.40 to 1.80 gm /ml

CHAPTER 3

Objectives

This proposal of transshipment of containers by water mode between Chennai and nearby Ports like KPL and L&T Ports will ease the road congestion being faced by ChPT. Moreover, by this transshipment, ChPT will become a Hub Port serving nearby Ports in the East Coast.

The concession proposed in the Pilotage charges will be offset by the additional volume handled by way of transshipment. Initially, it is expected that an average 100 TEUs in and 100 TEUs out per day.

CHAPTER 4

INSTRUCTIONS TO OPERATORS

A. Requirements of Vessels for the barge operations

- 1) The vessel should have the capacity of Minimum 100 TEUs
- 2) The vessel should be DGS/MMD approved for all weather 24X7X365 days operation at sea.
- 3) Should be self geared with suitable capacity gear for handling, loading, discharging TEUs/FEUs.

or

Gearless vessels on arrangement with the terminal operators for handling by using terminal quay cranes

- 4) Should have all statutory and necessary certificates including Insurance coverage in valid for a minimum period of 6 months.

(B) Charges/Incentive offered by ChPT

(a) Pilotage Charges:

Sl. No	Pilot Provided	Tug Provided	Present Rate	Proposed Rate
1	Yes	Yes	SOR 100%	SOR 50%
2	Yes	No	SOR 50%	No charge
3	No	No	SOR 50%	No charge

- (b) Port Dues: As per SoR.
- (c) Berth Hire Charges: As per SOR.
- (d) Terminal Charges: The TAMP approved Transshipment charges for the terminals (CCTL/CITPL) will be charged. The Developer may refer the web sites of CCTL/CITPL/TAMP accordingly.

- (e) Similar concession/arrangement may be done by the proposer independently with KPL or L&T Port as the case may be. Chennai Port will offer the concessions for Pilotage charges only.

Others:

- 1) Office space will be provided on prescribed license fee.
- 2) Priority berthing will be considered.

C) Applicability of Concession :

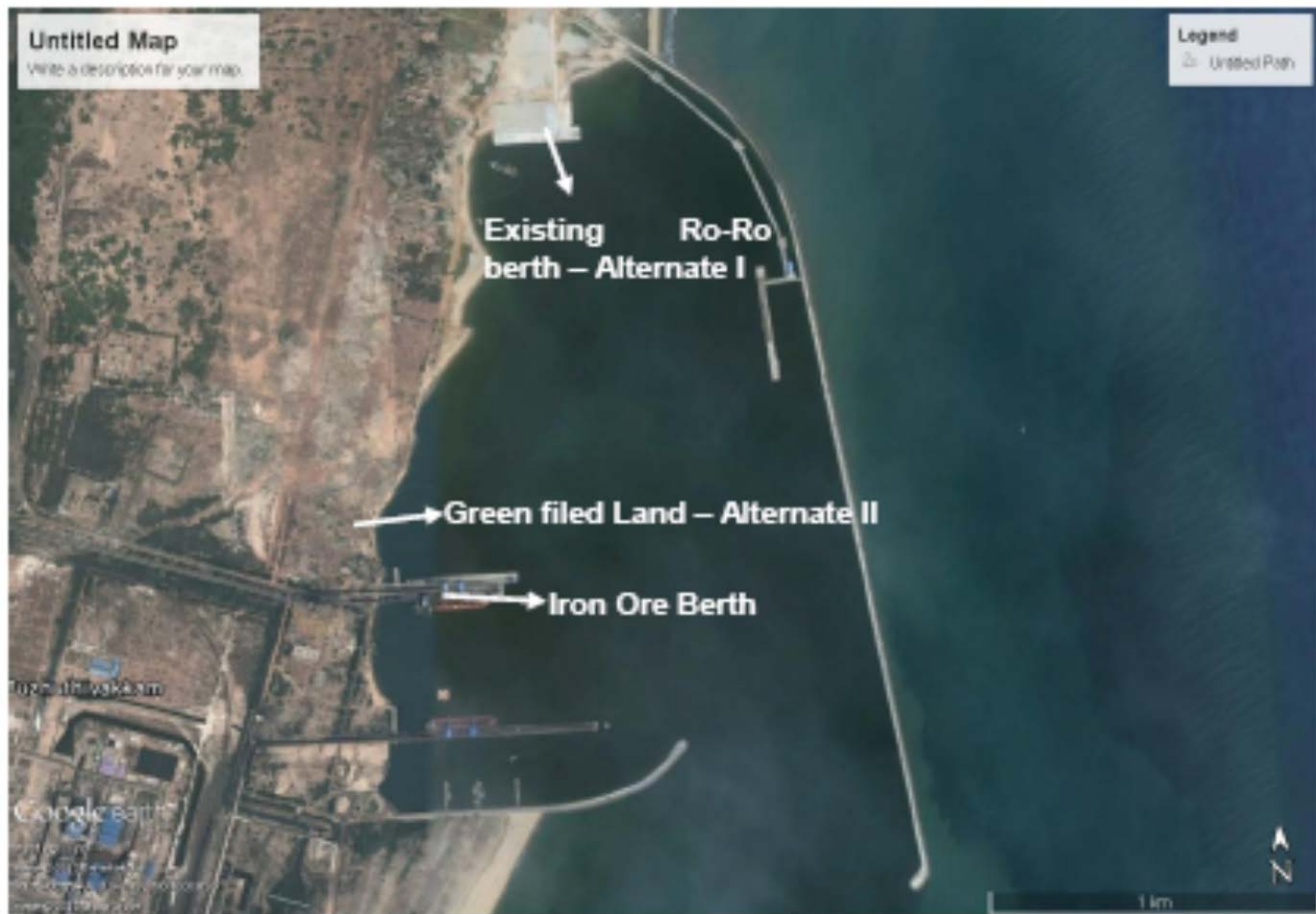
Any operators who commence the services within 120 days from 1st May, 2015 will be eligible for Concession as in Para (B) above for 3 years only.

D) Payments and responsibilities:

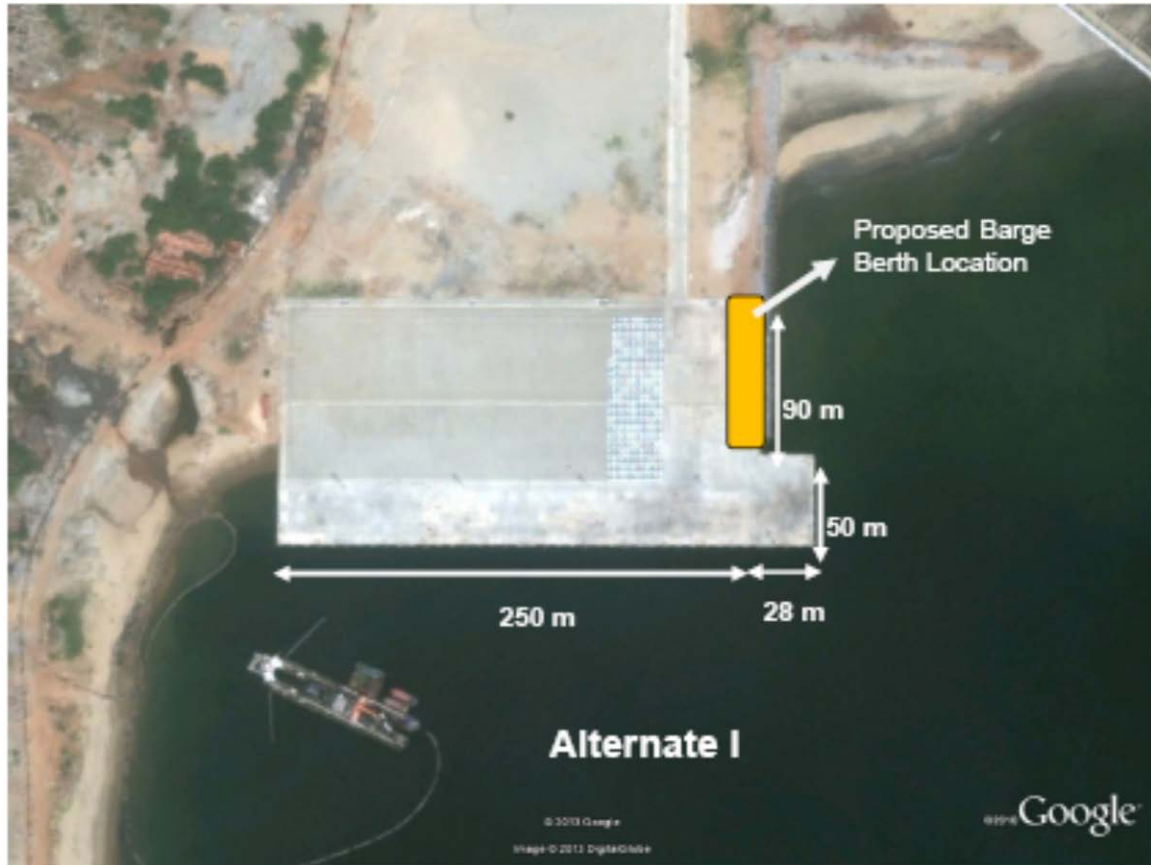
The vessel operator shall be a Steamer Agent registered with Chennai Port or shall appoint a Steamer Agent registered with Chennai Port. The above Steamer Agent shall be responsible for payment of the Port charges, all Port clearances and all actions within the Port limits.

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Layout of Kamarajar Port



Proposed Locations for development of marine highway at Kamarajar Port.



Parking Area – 5000 Sqm (Open space)
Water spread area for ramp – 200 Sqm