Appendix 4.5 Marine Traffic Data

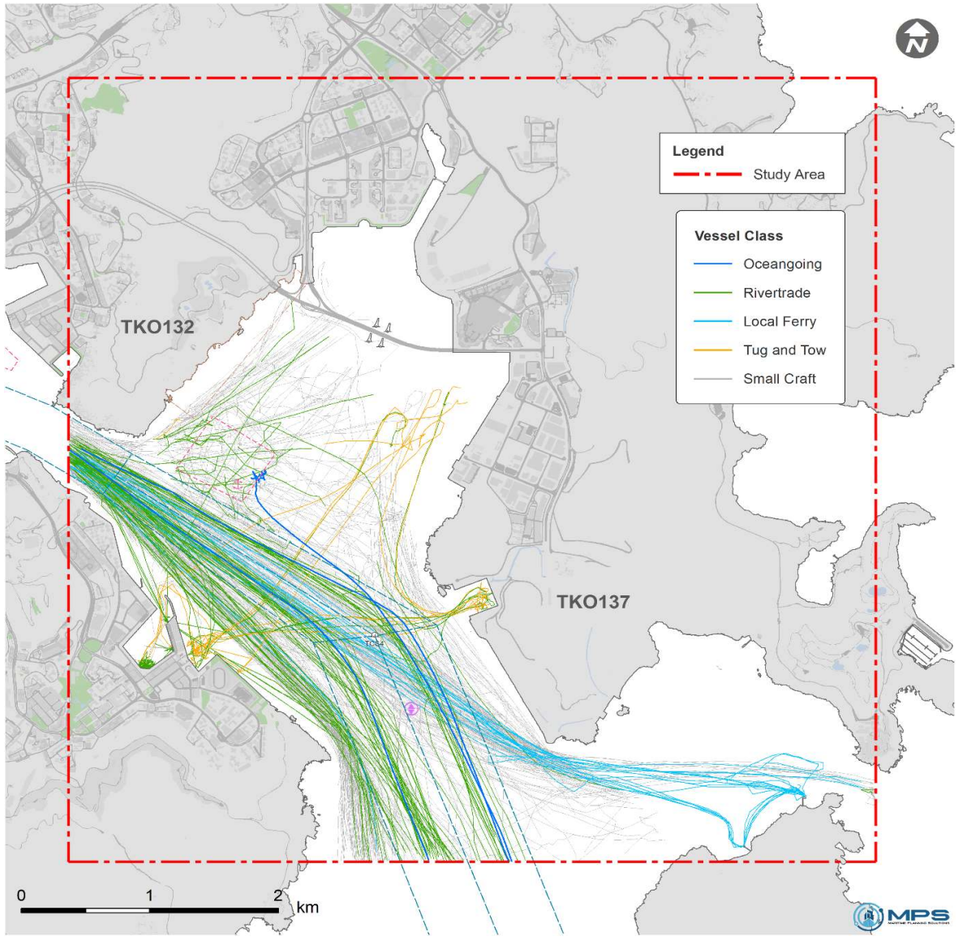
Vessel type classification

No.	MPS - SHIP TYPE	SHIP TYPE - Full Name	Length Overall (m)	Note
1	OGV	Ocean Going Vessel	>100	Cruise Liner
2	RTV	Rivertrade Vessel	<100	Container Vessel Bulk Carrier Tanker Fishing/Fish Processing Vessel Local Lighter/Barge/Cargo Junk Local Bunker Vessel
3	TT	Tug and Tow		One tug, towing a non-self-propelled Local Lighter/Barge/Cargo Junk
4	CBF / FF	Cross Boundary Ferry		Cross Boundary Ferry
5	LF	Local Ferry / Domestic Ferry		Local Ferry / Kaito
6	FL	Fast Launch		MD / FSD boats / Pilot Boat
7	SC	Small Craft	< 20m	Single Tugboat without towing Work Boat Pleasure Vessel Small Fishing vessel / Sampan

Remark [1] Classifications are provided by Marine Traffic Consultant

Appendix 4.5 Marine Traffic Data

Marine Vessel Track within the Study Area (in December 2023)



Remark [1] Observed marine vessel track are provided by Marine Traffic Consultant

Appendix 4.5 Marine Traffic Data

Marine traffic volume per hour prediction in 2041

2041 Hourly Traffic at Gate 1

ShipType	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Daily Total
OGV	0.00	0.31	0.00	0.00	0.62	0.93	0.00	0.31	1.82	0.93	0.93	0.00	0.31	0.62	0.31	1.82	0.00	0.62	0.31	0.00	0.31	1.24	1.51	0.86	13.8
RTV	2.53	2.16	2.34	2.72	4.20	2.19	3.68	3.11	3.39	2.92	5.07	3.96	3.34	2.44	2.97	3.20	3.53	3.06	2.77	2.16	2.83	2.53	3.01	2.16	72.3
TT	0.00	0.00	0.00	0.97	0.00	0.00	0.00	0.00	0.00	0.00	1.46	0.00	0.49	0.00	0.00	0.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.47	3.9
FF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
LF	Ferry tra	0.00	0.00	0.00	0.00	1.00	2.00	3.20	4.20	5.20	3.20	3.20	3.60	2.40	5.20	6.00	3.40	2.00	2.00	0.00	0.00	0.00	0.00	46.6
FL	0.00	0.17	0.00	0.00	0.00	0.00	0.00	0.34	0.00	1.68	0.51	0.84	0.17	0.34	0.34	0.51	0.67	0.17	0.34	0.00	0.34	0.17	0.51	0.34	7.4
SC	2.79	2.21	2.11	3.55	11.03	4.75	9.17	12.76	27.96	24.41	22.73	23.08	16.35	16.35	16.12	17.74	28.20	26.81	12.14	7.20	3.99	5.47	5.19	2.97	305.1

2041 Hourly Traffic at Gate 2

ShipType	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Daily Total
OGV	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
RTV	0.00	0.00	0.00	0.06	0.15	0.00	0.25	0.44	0.20	0.39	1.28	0.25	0.06	0.30	0.11	0.15	0.39	0.30	0.06	0.25	0.06	0.20	0.30	0.07	5.3
TT	sel tran	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
FF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
LF	0.00	0.00	0.00	0.00	0.00	0.00	1.00	2.00	3.20	4.20	5.20	3.20	3.20	3.60	2.40	5.20	6.00	3.40	2.00	2.00	0.00	0.00	0.00	0.00	46.6
FL	ferry tra	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.71	0.12	0.48	0.00	0.24	0.24	0.12	0.36	0.12	0.24	0.00	0.00	0.12	0.12	0.00	3.0
SC	0.87	0.92	0.49	0.34	2.28	0.73	2.03	1.26	3.48	4.73	3.77	5.80	3.63	3.48	3.91	3.63	3.72	3.67	1.69	1.26	1.17	1.84	0.77	0.82	56.3

2041 Hourly Traffic at Gate 3

ShipType	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Daily Total
OGV	0.00	0.31	0.00	0.00	0.31	0.31	1.27	0.00	0.31	2.84	0.00	0.65	0.31	0.65	0.31	1.92	0.31	0.31	0.31	0.00	0.00	0.96	1.27	0.69	13.0
RTV	1.98	2.22	1.69	2.03	5.01	3.23	6.41	7.04	5.45	5.40	6.98	5.20	5.31	5.30	4.87	5.78	6.99	5.64	4.39	2.22	2.99	2.56	3.22	2.18	104.1
TT	0.00	0.00	0.00	0.00	1.52	1.35	2.35	2.87	2.20	1.87	1.69	1.52	1.17	2.69	1.52	1.17	2.52	2.69	1.17	0.35	0.35	1.04	0.17	0.19	30.4
FF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
LF	0.00	2.02	0.00	2.02	2.02	2.02	4.04	6.05	5.63	5.23	7.24	3.22	3.22	3.61	2.41	5.22	6.02	3.63	2.00	2.00	0.00	0.00	0.00	0.00	67.6
FL	0.00	0.31	0.00	0.00	0.31	0.51	0.31	0.21	0.61	0.92	1.11	0.81	0.11	0.21	0.40	1.11	0.40	0.40	0.31	0.00	0.21	0.71	1.11	0.61	10.7
SC	Ferry tra	1.59	1.97	2.02	8.82	7.34	10.65	16.35	29.33	23.29	22.25	21.47	15.34	20.47	18.70	19.90	22.96	24.98	13.85	8.82	6.14	5.03	4.80	2.99	311.5

2041 Hourly Traffic at Gate 4

ShipType	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Daily Total
OGV	0.04	0.04	0.07	0.07	0.04	0.04	0.04	0.00	0.00	0.04	0.07	0.04	0.04	0.00	0.04	0.00	0.00	0.00	0.00	0.04	0.04	0.04	0.04	0.04	0.8
RTV	0.04	0.17	0.19	0.10	1.53	1.52	3.09	3.37	1.75	1.74	2.22	1.73	1.79	3.26	1.88	1.89	3.42	3.24	1.74	0.22	0.28	0.17	0.31	0.19	35.8
TT	0.00	0.00	0.07	0.00	1.07	1.15	2.00	3.83	1.96	1.21	1.28	1.00	1.21	2.00	1.00	1.15	2.69	2.28	1.21	0.48	0.48	0.42	0.00	0.04	26.5
FF	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
LF	0.00	0.00	0.00	0.00	0.00	0.00	1.00	2.00	2.00	1.00	2.00	0.00	0.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	0.00	0.00	0.00	0.00	20.0
FL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.49	0.26	0.09	0.00	0.00	0.00	0.00	0.17	0.00	0.00	0.00	0.17	0.17	0.17	1.5
SC	0.81	0.96	0.77	0.77	0.90	0.90	2.38	5.36	6.17	6.44	4.97	4.62	4.16	4.65	4.19	4.10	7.55	8.63	3.27	2.75	2.01	1.49	1.64	1.03	80.5

Boundary Ferry traffic in the Study Area

Remark [1] Marine traffic data are provided by Marine Traffic Consultant

[2] The traffic growth cap year of 2040 is assumed by Marine Traffic Consultant and endorsed by Marine Department. The marine traffic would be the same after year 2040. The full population intake of the Project would be in year 2041. Hence, year 2041 is selected as the assessment year with maximum marine traffic and full population intake.

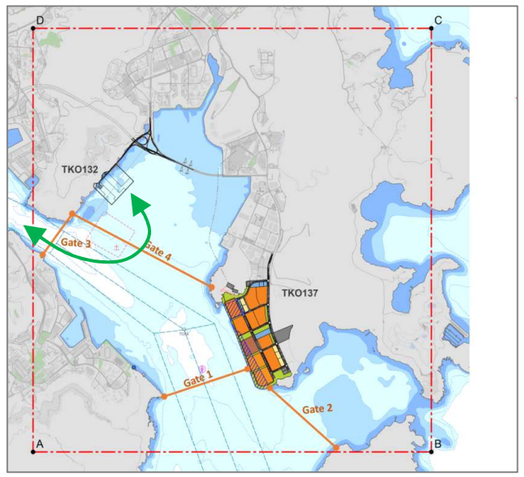
[3] Cells highlighted in yellow represent the peak marine traffic hour of respective gate

AQM Marine Traffic Assumptions

1. TKO 132 Operational Traffic and Gates

1.1 Operational Route

It is assumed that all TKO 132 operational traffic will only transit through Gate 3 and Gate 4.



1.2 Split btw River Trade and Tug & Tow

The split is based on "Marine Vessel Info as of 9 May 2024.pdf" in the email by AECOM dated 9 May 2024.

	RTV %	TT%	Remark
(1) Electric Facilities (EFs)			
(2) Construction Waste Handling Facility (CWHF)	50%	50%	derrick barge / container barge
(3) Public Fill Transfer Facility (PFTF)	50%	50%	for public fill
(4) Refuse Transfer Station (RTS)	100%	-	container barge, referring to existing self-propelled vessels
(5) Concrete Batching Plant (CBP)	50%	50%	cement barge

Remark

[1] Marine traffic data are provided by Marine Traffic Consultant

[redacted]

From: [redacted]mardep.gov.hk
Sent: Thursday, 7 November 2024 5:14 pm
To: [redacted]
Cc: [redacted]mardep.gov.hk
Subject: 轉寄: CE40_23 (CE) - Marine Traffic Data used in EIA
Attachments: CE40_23 (CE)_Marine Traffic data via Gates .xlsx; CE40_23 (CE)_Marine Traffic data via Routes.xlsx; CE40_23 (CE)_speed profile.xlsx

Dear [redacted],

I write to endorse on the MTIA study data to be utilized in EIA study.

Should you have any enquiry, please contact me at [redacted].

Regards

[redacted]
Marine Officer / Planning and Development Section (1)
Marine Department
Tel: 2852 4393

Our Ref:( ) in MD-PD&PS-F01-080-04A-006-P006

From: [redacted]aecom.com>
To: [redacted]@mardep.gov.hk>
Cc: [redacted]@aecom.com>, [redacted]@aecom.com>, [redacted]@aecom.com>, [redacted]@aecom.com>, [redacted]@aecom.com>
Date: 2024-11-07 13:55
Subject: CE40_23 (CE) - Marine Traffic Data used in EIA

Dear [redacted],

As requested by EPD on our EIA study for the above captioned agreement, grateful if we could have Marine Department's endorsement on the marine traffic data and the assumption on the peak year of marine traffic as follows to be utilized on our EIA study:

1. The attached marine traffic data including:
a. speed profile,
b. marine traffic data via Gates, and
c. marine traffic data via routes
2. The assumption on the peak year of marine traffic of all vessel types in 2040
a. It is conservatively assumed that traffic growth from 2030 to 2040 will be extrapolated from the existing trend. For assessment of marine traffic activities beyond 2040, it is assumed that that there will be no major expansion of container terminal development, or port facilities in Hong Kong, and marine traffic growth of all vessel types is assumed to reach the peak in 2040.

Grateful if you could provide Marine Department's endorsement at your earliest convenience to facilitate us to finalize our EIA study.

Thanks,
[redacted]
D [redacted]

From: [redacted]@mpsolutions.com.hk>
Sent: Monday, November 4, 2024 4:11 PM
To: [redacted]@aecom.com>
Cc: [redacted]@aecom.com>; [redacted]@aecom.com>; [redacted]
<[redacted]@mpsolutions.com.hk>; [redacted]@mpsolutions.com.hk>
Subject: Justification for Capping the Year at 2040 - EIA - Marine Traffic Input

REF: 8108

Dear [redacted],

As there are no relevant and available sources to predict marine traffic growth trends within Hong Kong after 2030, it is conservatively assumed that traffic growth from 2030 to 2040 will be extrapolated from the existing trend. For assessment of marine traffic activities beyond 2040, it is assumed that that there will be no major expansion of container terminal development, or port facilities in Hong Kong, and marine traffic growth of all vessel types is assumed to reach a peak in 2040.

We will update the marine traffic input if further information can be provided to determine the year more specifically.

Please don't hesitate to contact me if you have any questions.

Regards,

[redacted]

Senior Marine Consultant

Direct: [redacted]

Mobile: [redacted]
Email: [redacted]@mpsolutions.com.hk

Address: Room B3, 25/F TML Tower, No. 3 Hoi Shing Road, Tsuen Wan, N.T., Hong Kong

Please take note of the new MPS address, to ensure continued communication in mail correspondences, kindly update your Address Book with our new contact details.

Notional Route of Different Vessel Types according to Vessel Types Adopted in the Assessment

N

E-OS-R-M1

E-OLV-R-M4

E-OLV-R-M3

E-OLV-R-M2

E-OLV-R-M1

E-MPT-R-M1

P-PR1-R-M1

P-PR2-R-M1

P-PR3-R-M1

P-PR4-R-M1

P-PR5-R-M1

Notional Existing Track of Fast Launch and Local Ferry for NAPs at TKO 137

Notional Planned Track of Operation Traffic for NAPs at TKO 132

Notional Existing Track of Tug and Tow at TKO 137

Notional Existing Track of Small Craft for NAPs at TKO 137

Notional Existing Track of Ocean Going Vessels for NAPs at TKO 137

Notional Track of OGV, SC, RTV, LF, FL and TT for E-MPT-R-M1, and Notional Track of FL, LF, and SC for NAPs at OLV and OS

Notional Existing Track of Rivertrade Vessels for NAPs at TKO 137

Marine Traffic Noise Assessment Boundary

Marine Traffic Noise Representative NAP

Project Boundary

0 0.5 1 2 Kilometers