

Appendix I

Cumulative Statistics on
Exceedances, Complaints,
Notifications of Summons
and Successful Prosecutions

Appendix I1 Cumulative Statistics on Exceedances

		Total No. recorded in this reporting quarter	Total No. recorded since contract commencement
1-Hr TSP	Action	4	39
	Limit	1	8
24-Hr TSP	Action	0	2
	Limit	0	0
Landfill gas hazard monitoring			
• Methane	Action	0	0
	Limit	0	0
• Oxygen	Action	0	0
	Limit	0	0
• Carbon Dioxide	Action	0	0
	Limit	0	0

Appendix I2 Cumulative Statistics on Complaints, Notifications of Summons and Successful Prosecutions

Reporting Period	Cumulative Statistics		
	Complaints	Notifications of Summons	Successful Prosecutions
This reporting quarter	0	0	0
Total No. received since contract commencement	1	0	0

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To Ramboll Hong Kong Limited (ENPO)

From ERM- Hong Kong, Limited

Ref/Project number Contract No. HY/2017/10
Tuen Mun – Chek Lap Kok Link – Northern
Connection Tunnel Buildings, Electrical and
Mechanical Works

Subject Notification of Exceedance for Air Quality
Impact Monitoring

Date 30 December 2019

2507,
25/F One Harbourfront,
18 Tak Fung Street,
Hung Hom, Hong Kong
Telephone: (852) 2271 3113
Facsimile: (852) 2723 5660
E-mail: jasmine.ng@erm.com



Dear Sir/ Madam,

Please find attached the Notification of Exceedance (NOE) of the following
Log no.:

Action Level Exceedance

0463091_1December2019_1hrTSP_Station ASR10
0463091_1December2019_1hrTSP_Station ASR5

Limit Level Exceedance

0463091_1December2019_1hrTSP_Station ASR1

Three (3) exceedances were recorded on 1 December 2019.

Regards,

Dr Jasmine Ng
Environmental Team Leader

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ERM-Hong Kong, Limited

CONTRACT NO. HY/2017/10
 TUEN MUN – CHEK LAP KOK LINK –
 NORTHERN CONNECTION TUNNEL BUILDINGS,
 ELECTRICAL AND MECHANICAL WORKS

Air Quality Impact Monitoring

Notification of Exceedance

Log No.	<p style="text-align: center;"><u>Action Level Exceedance</u></p> <p style="text-align: center;">0463091_1December2019_1hrTSP_Station ASR10 0463091_1December2019_1hrTSP_Station ASR5</p> <p style="text-align: center;"><u>Limit Level Exceedance</u></p> <p style="text-align: center;">0463091_1December2019_1hrTSP_Station ASR1</p> <p style="text-align: center;">[Total No. of Exceedances = 3]</p>	
Date	<p style="text-align: center;">1 December 2019 (Measured) 6 January 2020 (Results obtained from ENPO Website)</p>	
Monitoring Station	<p style="text-align: center;">ASR1, ASR5 and ASR10</p>	
Parameter(s) with Exceedance(s)	<p style="text-align: center;">1- hr TSP</p>	
Action Levels	<p style="text-align: center;">1-hr TSP ($\mu\text{g}/\text{m}^3$)</p>	<p>ASR1 = 331 ASR5 = 340 ASR6 = 338 ASR10 = 335 AQMS1 = 337</p>
	<p style="text-align: center;">24-hr TSP ($\mu\text{g}/\text{m}^3$)</p>	<p>ASR1 = 213 ASR5 = 238 ASR6 = 238 ASR10 = 214 AQMS1 = 213</p>
Limit Levels	<p style="text-align: center;">1-hr TSP ($\mu\text{g}/\text{m}^3$)</p>	<p style="text-align: center;">500</p>
	<p style="text-align: center;">24-hr TSP ($\mu\text{g}/\text{m}^3$)</p>	<p style="text-align: center;">260</p>
Measured Levels	<p>Refer to the attached data sheet (Data are source from Contract No. HY/2012/08).</p>	
Works Undertaken (at the time of monitoring event)	<p>No works undertaken under this Contract on 1 December 2019.</p>	
Possible Reason for Action or Limit Level Exceedance(s)	<p>The exceedance is unlikely to be due to the Contract, in view of the following:</p> <ul style="list-style-type: none"> • No construction works was conducted on 1 December 2019. • The construction area under this Contract were mainly paved. The remaining unpaved area are seated by machines such as crane machines and generators or used as material storage area with proper cover of tarpaulin sheet. The exposed area are suppressed/covered. Dust are not anticipated. During ET's site inspection on 29 November 2019, the work area at Maintenance Depot and Administration Building were mainly paved. No dust generating activities/dust emission was observed (refer to <i>Appendix A</i>). <p>Based on the above, the exceedances are unlikely to be due to the Contract.</p>	
Actions Taken / To Be Taken	<p>The Contractor has been reminded to ensure all dust suppression measures are implemented at the site area. The ET will monitor for future trends in exceedances.</p>	
Remarks	<p>The monitoring results on 1 December 2019, locations of air quality monitoring stations, wind data are attached.</p>	

Results of Air Quality Monitoring

Project	Contract	Date (yyyy-mm-dd)	Station	Time	Parameter	Results	Unit
TMCLKL	HY/2012/08	2019-12-01	AQMS1	13:58:00	1-hour TSP	185	ug/m3
TMCLKL	HY/2012/08	2019-12-01	AQMS1	15:00:00	1-hour TSP	117	ug/m3
TMCLKL	HY/2012/08	2019-12-01	AQMS1	16:02:00	1-hour TSP	161	ug/m3
TMCLKL	HY/2012/08	2019-12-01	ASR1	13:47:00	1-hour TSP	231	ug/m3
TMCLKL	HY/2012/08	2019-12-01	ASR1	14:49:00	1-hour TSP	209	ug/m3
TMCLKL	HY/2012/08	2019-12-01	ASR1	15:51:00	1-hour TSP	747	ug/m3
TMCLKL	HY/2012/08	2019-12-01	ASR10	13:11:00	1-hour TSP	137	ug/m3
TMCLKL	HY/2012/08	2019-12-01	ASR10	14:13:00	1-hour TSP	129	ug/m3
TMCLKL	HY/2012/08	2019-12-01	ASR10	15:15:00	1-hour TSP	407	ug/m3
TMCLKL	HY/2012/08	2019-12-01	ASR5	13:36:00	1-hour TSP	196	ug/m3
TMCLKL	HY/2012/08	2019-12-01	ASR5	14:38:00	1-hour TSP	127	ug/m3
TMCLKL	HY/2012/08	2019-12-01	ASR5	15:40:00	1-hour TSP	377	ug/m3
TMCLKL	HY/2012/08	2019-12-01	ASR6	13:23:00	1-hour TSP	216	ug/m3
TMCLKL	HY/2012/08	2019-12-01	ASR6	14:25:00	1-hour TSP	149	ug/m3
TMCLKL	HY/2012/08	2019-12-01	ASR6	15:27:00	1-hour TSP	160	ug/m3
TMCLKL	HY/2012/08	2019-12-01	AQMS1	17:04:00	24-hour TSP	107	ug/m3
TMCLKL	HY/2012/08	2019-12-01	ASR1	16:53:00	24-hour TSP	168	ug/m3
TMCLKL	HY/2012/08	2019-12-01	ASR10	16:17:00	24-hour TSP	103	ug/m3
TMCLKL	HY/2012/08	2019-12-01	ASR5	16:42:00	24-hour TSP	110	ug/m3
TMCLKL	HY/2012/08	2019-12-01	ASR6	16:29:00	24-hour TSP	134	ug/m3

Note: Indicates Exceedance of Action Level
Indicates Exceedance of Limit Level

Meteorological Data for Impact Monitoring in the reporting period			
Date (yy-mm-dd)	Time (24hrs)	Average of Wind Speed (m/s)	Average of Wind Direction(degree)
19/12/01	1:00	1.3	304
19/12/01	2:00	1.3	319
19/12/01	3:00	0.9	303
19/12/01	4:00	0.4	290
19/12/01	5:00	0.4	339
19/12/01	6:00	0	-
19/12/01	7:00	0	-
19/12/01	8:00	1.3	28
19/12/01	9:00	1.3	28
19/12/01	10:00	1.8	207
19/12/01	11:00	1.3	210
19/12/01	12:00	1.8	309
19/12/01	13:00	2.7	273
19/12/01	14:00	2.2	288
19/12/01	15:00	1.8	272
19/12/01	16:00	0.9	302
19/12/01	17:00	0.9	319
19/12/01	18:00	0.9	288
19/12/01	19:00	1.3	289
19/12/01	20:00	1.3	315
19/12/01	21:00	2.2	309
19/12/01	22:00	1.8	311
19/12/01	23:00	1.3	318

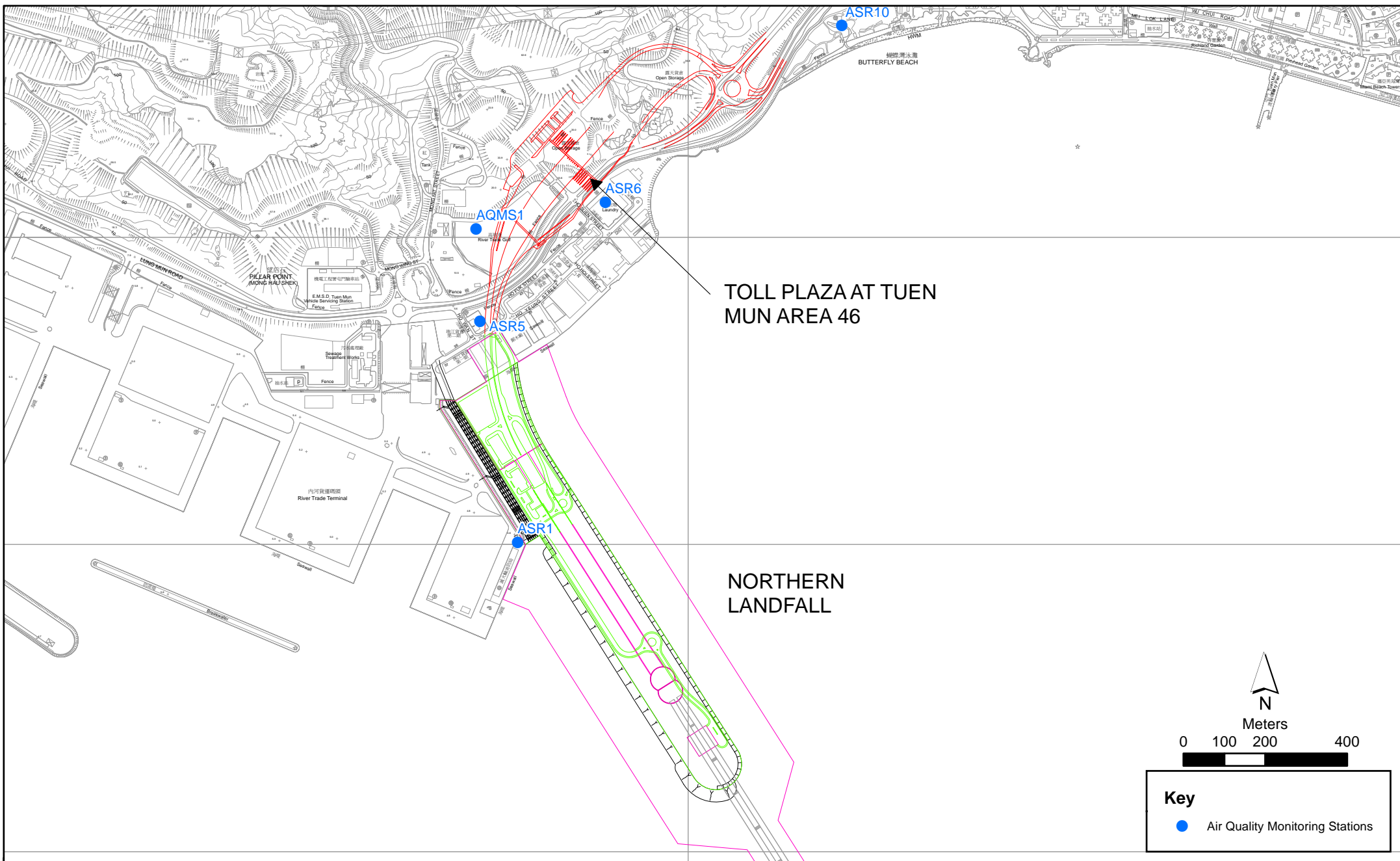
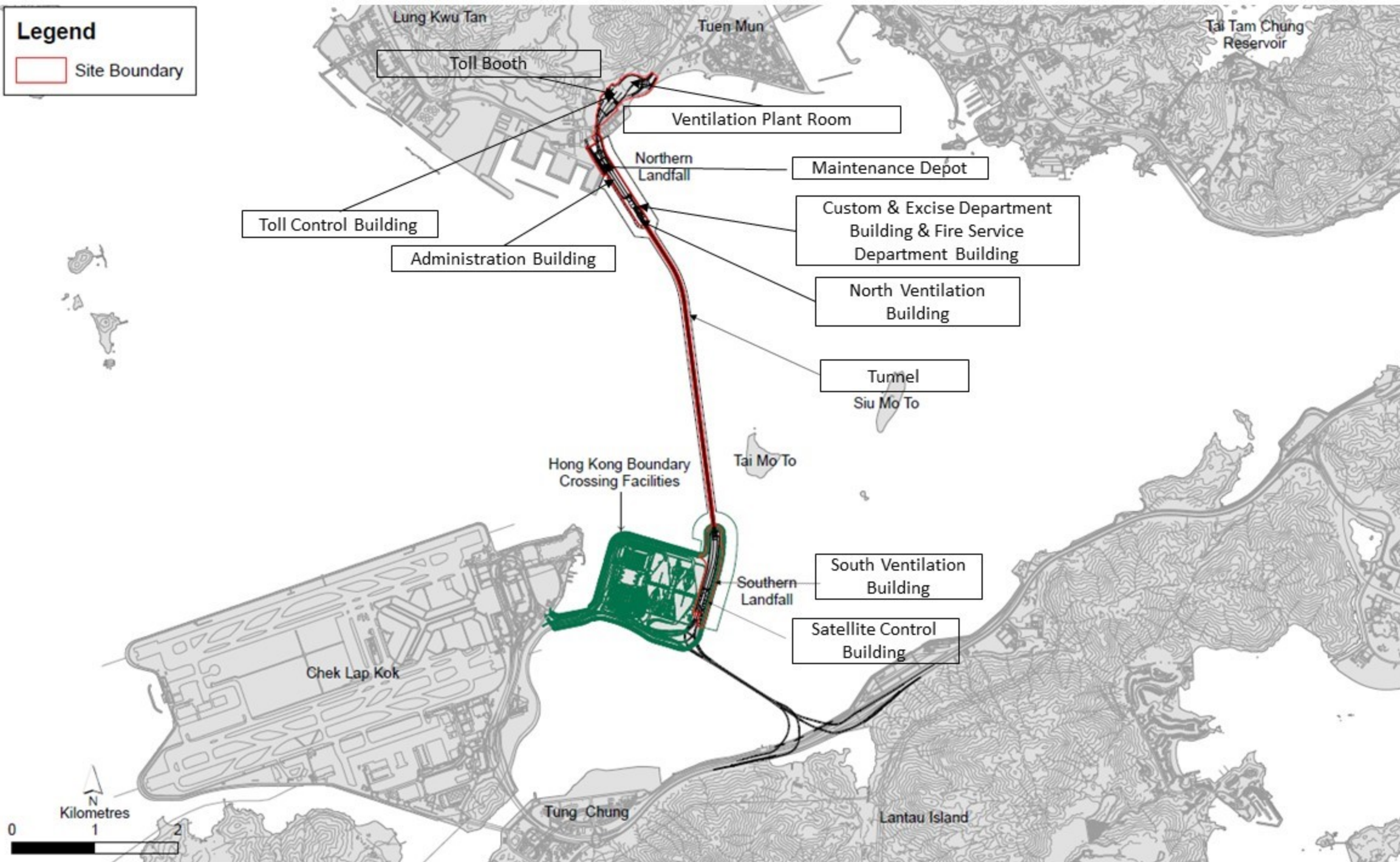


Figure 2.1

Air Quality Monitoring Stations for the Enhanced TSP Monitoring
 (Source: Adopted from Contract No. HY/2012/08 Tuen Mun-Chek Lap Kok Link -
 Northern Connection Sub-sea Tunnel Section)

Legend

Site Boundary



Appendix A

ET site inspection on 29
November 2019

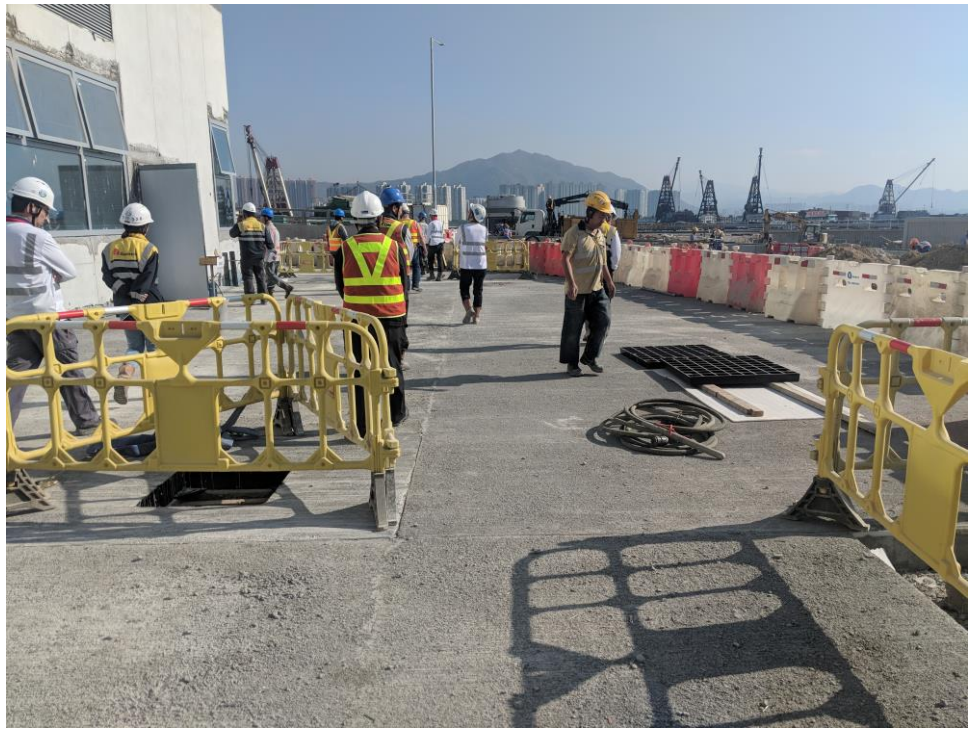


Photo 1 - Site condition at Maintenance Depot



Photo 2 - Site condition at Administration Building

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To Ramboll Hong Kong Limited (ENPO)

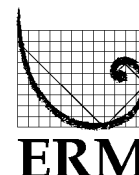
From ERM- Hong Kong, Limited

Ref/Project number Contract No. HY/2017/10
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Date 30 December 2019

2507,
25/F One Harbourfront,
18 Tak Fung Street,
Hung Hom, Hong Kong
Telephone: (852) 2271 3113
Facsimile: (852) 2723 5660
E-mail: jasmine.ng@erm.com



Dear Sir/ Madam,

Please find attached the Notification of Exceedance (NOE) of the following
Log no.:

Action Level Exceedance

0463091_4December2019_1hrTSP_Station ASR1

0463091_4December2019_1hrTSP_Station ASR5

Two (2) exceedances were recorded on 4 December 2019.

Regards,

Dr Jasmine Ng
Environmental Team Leader

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ERM-Hong Kong, Limited

CONTRACT NO. HY/2017/10
 TUEN MUN – CHEK LAP KOK LINK –
 NORTHERN CONNECTION TUNNEL BUILDINGS,
 ELECTRICAL AND MECHANICAL WORKS

Air Quality Impact Monitoring

Notification of Exceedance

Log No.	<u>Action Level Exceedance</u> 0463091_28November2019_1hrTSP_Station ASR1 0463091_28November2019_1hrTSP_Station ASR5 [Total No. of Exceedances = 2]	
Date	4 December 2019 (Measured) 6 January 2020 (Results obtained from ENPO Website)	
Monitoring Station	ASR1 and ASR5	
Parameter(s) with Exceedance(s)	1- hr TSP	
Action Levels	1-hr TSP ($\mu\text{g}/\text{m}^3$)	ASR1 = 331 ASR5 = 340 ASR6 = 338 ASR10 = 335 AQMS1 = 337
	24-hr TSP ($\mu\text{g}/\text{m}^3$)	ASR1 = 213 ASR5 = 238 ASR6 = 238 ASR10 = 214 AQMS1 = 213
Limit Levels	1-hr TSP ($\mu\text{g}/\text{m}^3$)	500
	24-hr TSP ($\mu\text{g}/\text{m}^3$)	260
Measured Levels	Refer to the attached data sheet (Data are source from Contract No. HY/2012/08).	
Works Undertaken (at the time of monitoring event)	Works undertaken under this Contract on 4 December 2019 included <ul style="list-style-type: none"> • Electrical and Mechanical Works and Architectural Builder's Work and Finishes at Administration Building; • Electrical and Mechanical Works and Architectural Builder's Work and Finishes at Maintenance Depot; • Electrical and Mechanical Works and Architectural Builder's Work and Finishes at Fire Services Department Building. 	
Possible Reason for Action or Limit Level Exceedance(s)	The exceedances are unlikely to be due to the Contract, in view of the following: <ul style="list-style-type: none"> • With reference to the recorded wind direction (ranged between 14° and 356°, blowing from a northern direction) and wind speed (ranged between 2.7 and 3.1 m/s) when exceedances recorded, ASR5 is located upstream to the construction work area which is unlikely impacted by the construction activities conducted by this Contract on 4 December 2019. ASR1 is located nearby to the construction works at Maintenance Depot and Administration Building. However, the construction works at Maintenance Depot and Administration Building were mainly Electrical and Mechanical Works and Architectural Builders Work and Finishes which are considered not major dust generating works (refer to <i>Appendix A</i>). • No major dust generating activities i.e. excavation works was conducted on 4 December 2019. • The construction area under this Contract were mainly paved. The remaining unpaved area are seated by machines such as crane machines and generators or used as material storage area with proper cover of tarpaulin sheet. The exposed area are suppressed/covered. Dust are not anticipated. Based on the above, the exceedances are unlikely to be due to the Contract.	

Actions Taken / To Be Taken	No immediate action is considered necessary. The ET will monitor for future trends in exceedances.
Remarks	The monitoring results on 4 December 2019, locations of air quality monitoring stations and wind data are attached.

Results of Air Quality Monitoring

Project	Contract	Date (yyyy-mm-dd)	Station	Time	Parameter	Results	Unit
TMCLKL	HY/2012/08	2019-12-04	AQMS1	8:44:00	1-hour TSP	156	ug/m3
TMCLKL	HY/2012/08	2019-12-04	AQMS1	9:51:00	1-hour TSP	160	ug/m3
TMCLKL	HY/2012/08	2019-12-04	AQMS1	10:53:00	1-hour TSP	116	ug/m3
TMCLKL	HY/2012/08	2019-12-04	ASR1	8:37:00	1-hour TSP	366	ug/m3
TMCLKL	HY/2012/08	2019-12-04	ASR1	9:39:00	1-hour TSP	220	ug/m3
TMCLKL	HY/2012/08	2019-12-04	ASR1	10:41:00	1-hour TSP	100	ug/m3
TMCLKL	HY/2012/08	2019-12-04	ASR10	8:02:00	1-hour TSP	103	ug/m3
TMCLKL	HY/2012/08	2019-12-04	ASR10	9:04:00	1-hour TSP	113	ug/m3
TMCLKL	HY/2012/08	2019-12-04	ASR10	10:06:00	1-hour TSP	101	ug/m3
TMCLKL	HY/2012/08	2019-12-04	ASR5	8:25:00	1-hour TSP	380	ug/m3
TMCLKL	HY/2012/08	2019-12-04	ASR5	9:27:00	1-hour TSP	180	ug/m3
TMCLKL	HY/2012/08	2019-12-04	ASR5	10:29:00	1-hour TSP	202	ug/m3
TMCLKL	HY/2012/08	2019-12-04	ASR6	8:13:00	1-hour TSP	150	ug/m3
TMCLKL	HY/2012/08	2019-12-04	ASR6	9:15:00	1-hour TSP	163	ug/m3
TMCLKL	HY/2012/08	2019-12-04	ASR6	10:17:00	1-hour TSP	169	ug/m3
TMCLKL	HY/2012/08	2019-12-04	AQMS1	11:55:00	24-hour TSP	97	ug/m3
TMCLKL	HY/2012/08	2019-12-04	ASR1	11:43:00	24-hour TSP	164	ug/m3
TMCLKL	HY/2012/08	2019-12-04	ASR10	11:08:00	24-hour TSP	84	ug/m3
TMCLKL	HY/2012/08	2019-12-04	ASR5	11:31:00	24-hour TSP	190	ug/m3
TMCLKL	HY/2012/08	2019-12-04	ASR6	11:19:00	24-hour TSP	118	ug/m3

Note:

Indicates Exceedance of Action Level
 Indicates Exceedance of Limit Level

Meteorological Data for Impact Monitoring in the reporting period			
Date (yy-mm-dd)	Time (24hrs)	Average of Wind Speed (m/s)	Average of Wind Direction(degree)
19/12/04	0:00	1.8	328
19/12/04	1:00	2.7	30
19/12/04	2:00	2.2	25
19/12/04	3:00	1.8	13
19/12/04	4:00	1.8	19
19/12/04	5:00	2.7	355
19/12/04	6:00	1.8	339
19/12/04	7:00	1.8	339
19/12/04	8:00	3.1	356
19/12/04	9:00	2.7	14
19/12/04	10:00	2.2	28
19/12/04	11:00	2.2	16
19/12/04	12:00	1.8	31
19/12/04	13:00	1.8	31
19/12/04	14:00	1.3	306
19/12/04	15:00	2.2	325
19/12/04	16:00	1.8	345
19/12/04	17:00	1.8	341
19/12/04	18:00	0.9	306
19/12/04	19:00	0.4	292
19/12/04	20:00	0.4	311
19/12/04	21:00	1.3	14
19/12/04	22:00	1.3	56
19/12/04	23:00	1.8	28

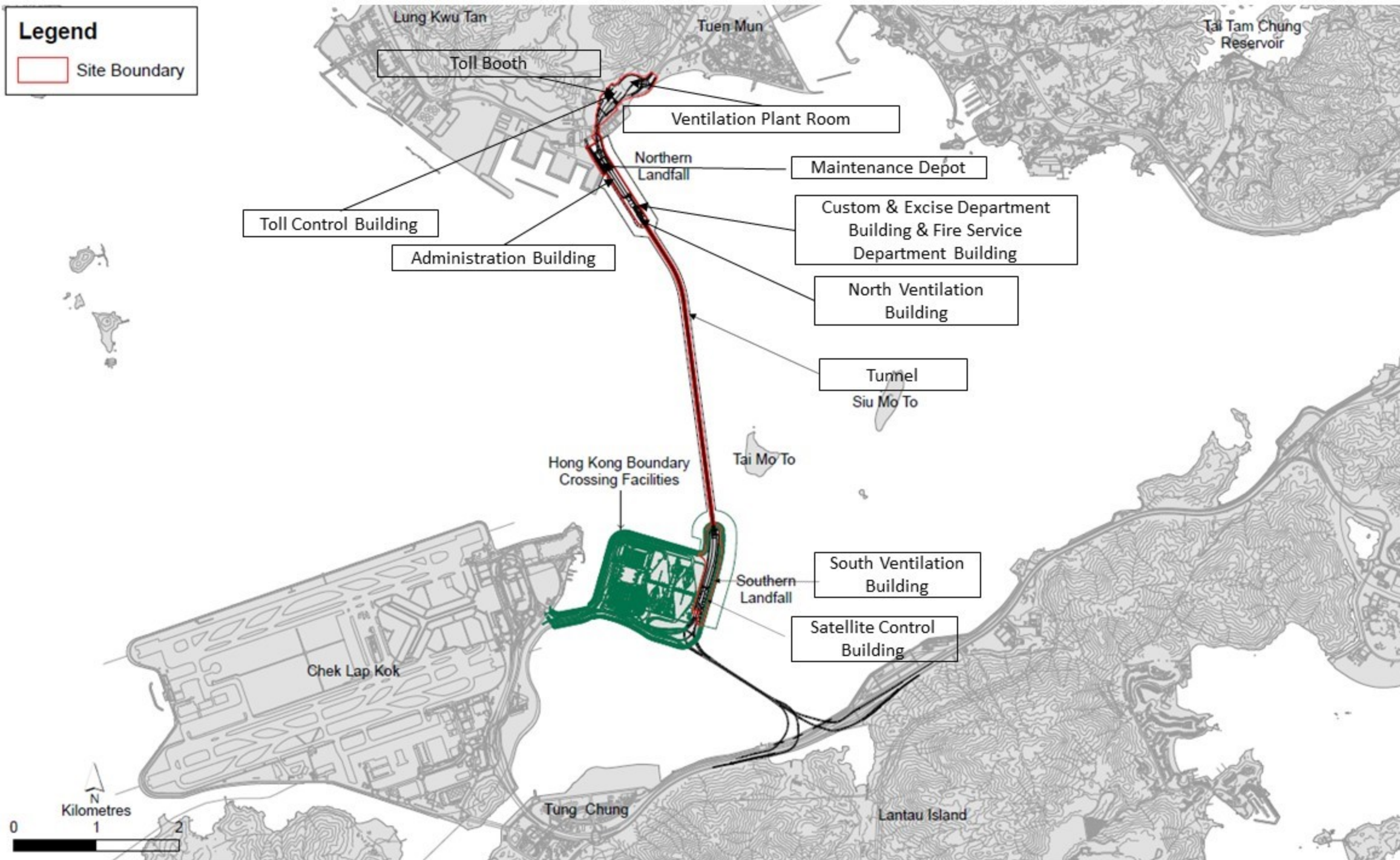


Figure 2.1

Air Quality Monitoring Stations for the Enhanced TSP Monitoring
 (Source: Adopted from Contract No. HY/2012/08 Tuen Mun-Chek Lap Kok Link -
 Northern Connection Sub-sea Tunnel Section)

Legend

Site Boundary



Appendix A

Site Photo



Photo 1 - Construction works at Administration Building



Photo 2 - Construction works at Maintenance Depot



Photo 3 - Construction works at Fire Services Department Building