

Appendix 3.7 Emission Inventory of Concurrent Projects

HSK/HT NDA development

Construction Phase

Concurrent Construction Dust Emission

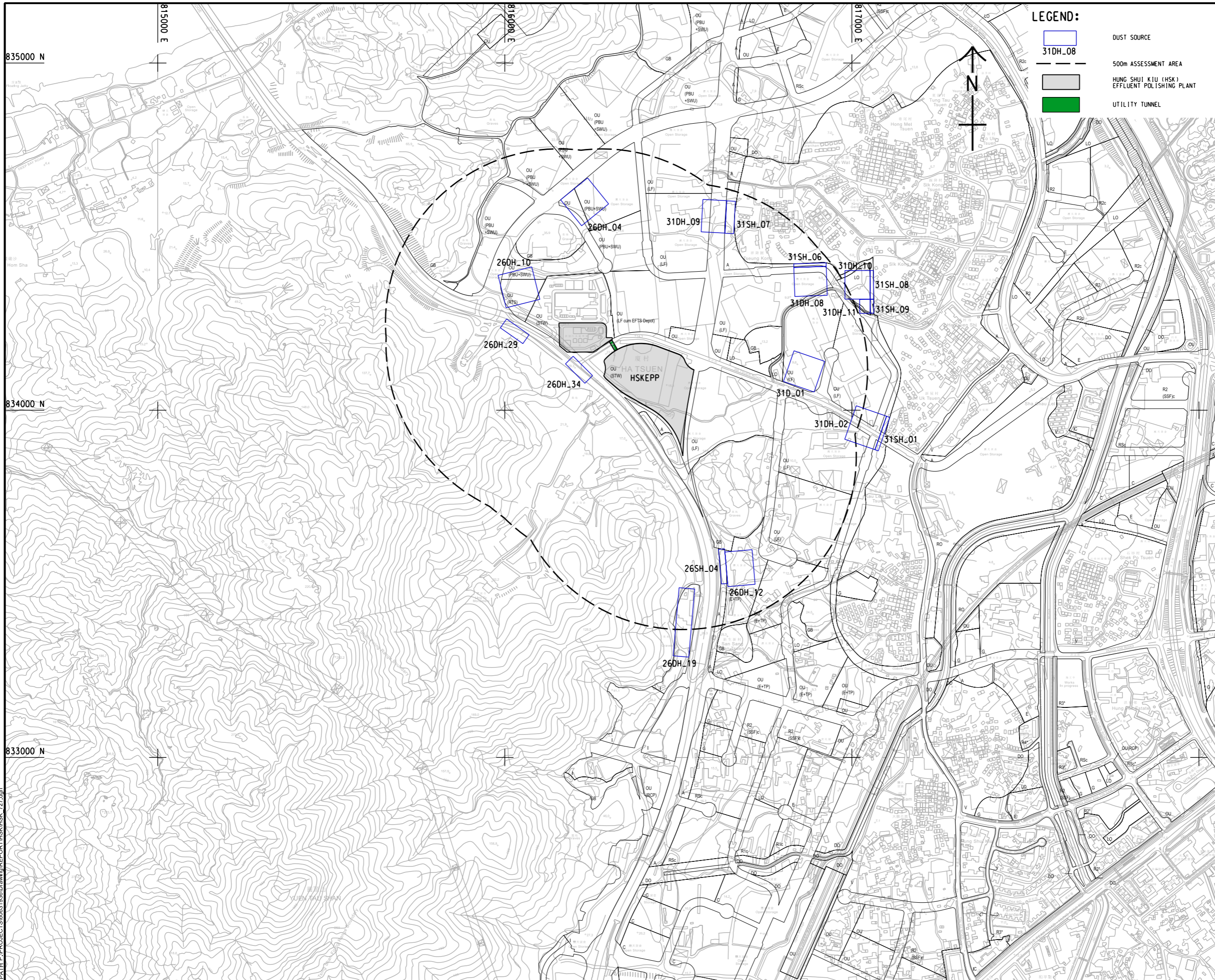
Emission Source Listing in AERMOD

Source	Type	X1	Y1	X2	Y2	Height (m)	Width / Angle	Working Hour	TSP Emission Rate (g/m ² -s)		RSP Emission Rate (g/m ² -s)		FSP Emission Rate (g/m ² -s)	
									Working hours	Non-working hours	Working hours	Non-working hours	Working hours	Non-working hours
26DH_04	AREA	816238.45	834669.14	100.00	96.27	3.0	140.97	07:00 - 19:00	1.723E-05	2.695E-06	8.149E-06	1.275E-06	1.240E-06	1.941E-07
26DH_10	AREA	816077.47	834412.77	100.00	96.27	3.0	165.60	07:00 - 19:00	1.723E-05	2.695E-06	8.149E-06	1.275E-06	1.240E-06	1.941E-07
26DH_12	AREA	816712.33	833598.32	78.52	100.00	3.0	175.20	07:00 - 19:00	1.723E-05	2.695E-06	8.149E-06	1.275E-06	1.240E-06	1.941E-07
26DH_19	AREA	816502.16	833488.80	196.82	44.92	3.0	94.77	07:00 - 19:00	1.723E-05	2.695E-06	8.149E-06	1.275E-06	1.240E-06	1.941E-07
26DH_29	AREA	816005.07	834262.79	31.19	79.10	3.0	125.14	07:00 - 19:00	1.723E-05	2.695E-06	8.149E-06	1.275E-06	1.240E-06	1.941E-07
26DH_34	AREA	816196.79	834155.63	31.19	79.10	3.0	134.70	07:00 - 19:00	1.723E-05	2.695E-06	8.149E-06	1.275E-06	1.240E-06	1.941E-07
26SH_04	AREA	816633.33	833600.71	17.75	100.00	3.0	175.20	07:00 - 19:00	4.067E-08	2.695E-06	1.924E-08	1.275E-06	2.913E-09	1.941E-07
31DH_02	AREA	817012.65	834012.89	102.02	92.02	3.0	109.18	07:00 - 19:00	1.723E-05	2.695E-06	8.149E-06	1.275E-06	1.240E-06	1.941E-07
31DH_08	AREA	816926.01	834414.30	93.43	83.43	3.0	178.05	07:00 - 19:00	1.723E-05	2.695E-06	8.149E-06	1.275E-06	1.240E-06	1.941E-07
31DH_09	AREA	816570.61	834607.16	93.43	68.43	3.0	93.40	07:00 - 19:00	1.723E-05	2.695E-06	8.149E-06	1.275E-06	1.240E-06	1.941E-07
31DH_10	AREA	817052.21	834402.43	72.29	82.29	3.0	179.99	07:00 - 19:00	1.723E-05	2.695E-06	8.149E-06	1.275E-06	1.240E-06	1.941E-07
31DH_11	AREA	817052.22	834319.50	30.00	40.00	3.0	179.31	07:00 - 19:00	1.723E-05	2.695E-06	8.149E-06	1.275E-06	1.240E-06	1.941E-07
31SH_01	AREA	817099.81	833982.58	102.02	10.00	3.0	109.18	07:00 - 19:00	4.067E-08	2.695E-06	1.924E-08	1.275E-06	2.913E-09	1.941E-07
31SH_06	AREA	816925.66	834424.68	93.43	10.00	3.0	178.05	07:00 - 19:00	4.067E-08	2.695E-06	1.924E-08	1.275E-06	2.913E-09	1.941E-07
31SH_07	AREA	816639.27	834603.08	93.43	25.00	3.0	93.40	07:00 - 19:00	4.067E-08	2.695E-06	1.924E-08	1.275E-06	2.913E-09	1.941E-07
31SH_08	AREA	817062.42	834402.48	10.00	82.29	3.0	179.99	07:00 - 19:00	4.067E-08	2.695E-06	1.924E-08	1.275E-06	2.913E-09	1.941E-07
31SH_09	AREA	817062.44	834319.63	10.00	40.00	3.0	179.31	07:00 - 19:00	4.067E-08	2.695E-06	1.924E-08	1.275E-06	2.913E-09	1.941E-07
31D_01	AREA	816833.19	834171.27	93.43	93.43	0.5	109.32	07:00 - 19:00	1.723E-05	2.695E-06	8.149E-06	1.275E-06	1.240E-06	1.941E-07

Remarks:

The emission inventory is adopted directly from Page 14, 15, Appendix 3.1, Hung Shui Kiu New Development Area EIA (EIA-248/2016).

ISO A1 594mm x 841mm
 Approved:
 Checked:
 Designer:
 Project Management Initials:
 Plot File by: YaoFB
 2022/5/5
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LEGEND:

- 31DH_08
- 500m ASSESSMENT AREA
- HUNG SHUI KIU (HSK) EFFLUENT POLISHING PLANT
- UTILITY TUNNEL

AECOM

PROJECT
 HUNG SHUI KIU
 EFFLUENT POLISHING
 PLANT AND
 YUEN LONG SOUTH
 EFFLUENT POLISHING
 PLANT - INVESTIGATION

CLIENT
 渠務署
 Drainage Services Department

CONSULTANT
 AECOM Asia Company Ltd.
 www.aecom.com

SUB-CONSULTANTS

ISSUE/REVISION

I/R	DATE	DESCRIPTION	CHK.

STATUS

SCALE **DIMENSION UNIT**
 A1 1: 5000 METRES

KEY PLAN

PROJECT NO. **CONTRACT NO.**
 60631936 CE 6/2019 (DS)

SHEET TITLE
 LOCATION OF CONCURRENT
 CONSTRUCTION DUST SOURCE

SHEET NUMBER
 60631936/HSK/727

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Appendix 3.7 Emission Inventory of Concurrent Projects

HSK/HT NDA development
Construction Phase

Port Backup Sites (PBU) and Logistics Facilities Sites (LF) Emission Source

Source	Type	X1	Y1	X2	Y2	Height (mAG)	Width / Angle	TSP Emission Rate (g/s)	RSP Emission Rate (g/s)	FSP Emission Rate (g/s)
P1	Area	815937.43	834508.19	69.00	51.86	0.50	109.29	3.990E-07	3.990E-07	3.990E-07
P2	Area	815949.50	834598.40	73.39	95.31	0.50	122.86	3.990E-07	3.990E-07	3.990E-07
P3	Area	816016.41	834728.57	28.84	100.19	0.50	139.90	3.990E-07	3.990E-07	3.990E-07
P4	Area	816102.47	834803.21	113.91	146.27	0.50	139.90	3.990E-07	3.990E-07	3.990E-07

Hourly Profile

Hour	TSP	RSP	FSP
Hour 1	0.0013	0.0013	0.0013
Hour 2	0.0013	0.0013	0.0013
Hour 3	0.0013	0.0013	0.0013
Hour 4	0.0013	0.0013	0.0013
Hour 5	0.0013	0.0013	0.0013
Hour 6	0.0013	0.0013	0.0013
Hour 7	0.0013	0.0013	0.0013
Hour 8	0.0013	0.0013	0.0013
Hour 9	1.0000	1.0000	1.0000
Hour 10	1.0000	1.0000	1.0000
Hour 11	1.0000	1.0000	1.0000
Hour 12	1.0000	1.0000	1.0000
Hour 13	1.0000	1.0000	1.0000
Hour 14	1.0000	1.0000	1.0000
Hour 15	1.0000	1.0000	1.0000
Hour 16	1.0000	1.0000	1.0000
Hour 17	0.0013	0.0013	0.0013
Hour 18	0.0013	0.0013	0.0013
Hour 19	0.0013	0.0013	0.0013
Hour 20	0.0013	0.0013	0.0013
Hour 21	0.0013	0.0013	0.0013
Hour 22	0.0013	0.0013	0.0013
Hour 23	0.0013	0.0013	0.0013
Hour 24	0.0013	0.0013	0.0013

Remarks:

The emission inventory is adopted directly from Page 3, Appendix 3.2, Hung Shui Kiu New Development Area EIA (EIA-248/2016).

Industrial Chimney Emission Source

Source	Type	X	Y	Height (mAG)	Exit Temp. (K)	Exit velocity (m/s)	Stack Diameter (m)	Working Hour	TSP Emission Rate (g/s)	RSP Emission Rate (g/s)	FSP Emission Rate (g/s)
CH13	Point	816521.73	833476.35	50.00	477.15	6.00	0.60	0700 - 1900	1.333E-02	7.200E-03	5.533E-03
CH63	Point	816507.00	833447.30	50.00	373.00	6.00	1.00	0700 - 1900	1.333E-02	7.200E-03	5.533E-03

Remarks:

The emission inventory is adopted directly from Page 4, Appendix 3.2, Hung Shui Kiu New Development Area EIA (EIA-248/2016).

Appendix 3.7 Emission Inventory of Concurrent Projects

HSK/HT NDA development
Operation Phase

Port Backup Sites (PBU) and Logistics Facilities Sites (LF) Emission Source

Source	Type	X1	Y1	X2	Y2	Height (mAG)	Width / Angle	RSP Emission Rate (g/s)	FSP Emission Rate (g/s)	NOx Emission Rate (g/s)	SO ₂ Emission Rate (g/s)
P1	Area	815937.43	834508.19	69.00	51.86	0.50	109.29	3.990E-07	3.990E-07	8.134E-06	0.000E+00
P2	Area	815949.50	834598.40	73.39	95.31	0.50	122.86	3.990E-07	3.990E-07	8.134E-06	0.000E+00
P3	Area	816016.41	834728.57	28.84	100.19	0.50	139.90	3.990E-07	3.990E-07	8.134E-06	0.000E+00
P4	Area	816102.47	834803.21	113.91	146.27	0.50	139.90	3.990E-07	3.990E-07	8.134E-06	0.000E+00
P7	Area	816122.18	834432.51	32.95	55.43	0.50	180.00	3.990E-07	3.990E-07	8.134E-06	0.000E+00
P8	Area	816183.84	834432.51	61.66	48.12	0.50	180.00	3.990E-07	3.990E-07	8.134E-06	0.000E+00
P9	Area	816266.42	834432.51	82.58	42.92	0.50	180.00	3.990E-07	3.990E-07	8.134E-06	0.000E+00
P10	Area	816255.60	834460.92	60.53	28.41	0.50	180.00	3.990E-07	3.990E-07	8.134E-06	0.000E+00
P11	Area	816243.17	834479.75	26.46	18.83	0.50	180.00	3.990E-07	3.990E-07	8.134E-06	0.000E+00
P12	Area	816315.59	834534.79	54.17	84.67	0.50	175.97	3.990E-07	3.990E-07	8.134E-06	0.000E+00
P13	Area	816237.35	834670.66	41.60	22.97	0.50	139.90	3.990E-07	3.990E-07	8.134E-06	0.000E+00
P14	Area	816353.30	834768.31	152.27	46.54	0.50	139.90	3.990E-07	3.990E-07	8.134E-06	0.000E+00

Hourly Profile

Hour	RSP	FSP	NOx	SO ₂
Hour 1	0.0013	0.0013	0.0047	0.0000
Hour 2	0.0013	0.0013	0.0047	0.0000
Hour 3	0.0013	0.0013	0.0047	0.0000
Hour 4	0.0013	0.0013	0.0047	0.0000
Hour 5	0.0013	0.0013	0.0047	0.0000
Hour 6	0.0013	0.0013	0.0047	0.0000
Hour 7	0.0013	0.0013	0.0047	0.0000
Hour 8	0.0013	0.0013	0.0047	0.0000
Hour 9	1.0000	1.0000	1.0000	1.0000
Hour 10	1.0000	1.0000	1.0000	1.0000
Hour 11	1.0000	1.0000	1.0000	1.0000
Hour 12	1.0000	1.0000	1.0000	1.0000
Hour 13	1.0000	1.0000	1.0000	1.0000
Hour 14	1.0000	1.0000	1.0000	1.0000
Hour 15	1.0000	1.0000	1.0000	1.0000
Hour 16	1.0000	1.0000	1.0000	1.0000
Hour 17	0.0013	0.0013	0.0047	0.0000
Hour 18	0.0013	0.0013	0.0047	0.0000
Hour 19	0.0013	0.0013	0.0047	0.0000
Hour 20	0.0013	0.0013	0.0047	0.0000
Hour 21	0.0013	0.0013	0.0047	0.0000
Hour 22	0.0013	0.0013	0.0047	0.0000
Hour 23	0.0013	0.0013	0.0047	0.0000
Hour 24	0.0013	0.0013	0.0047	0.0000

Remarks:

The emission inventory is adopted directly from Page 3, Appendix 3.2, Hung Shui Kiu New Development Area EIA (EIA-248/2016).

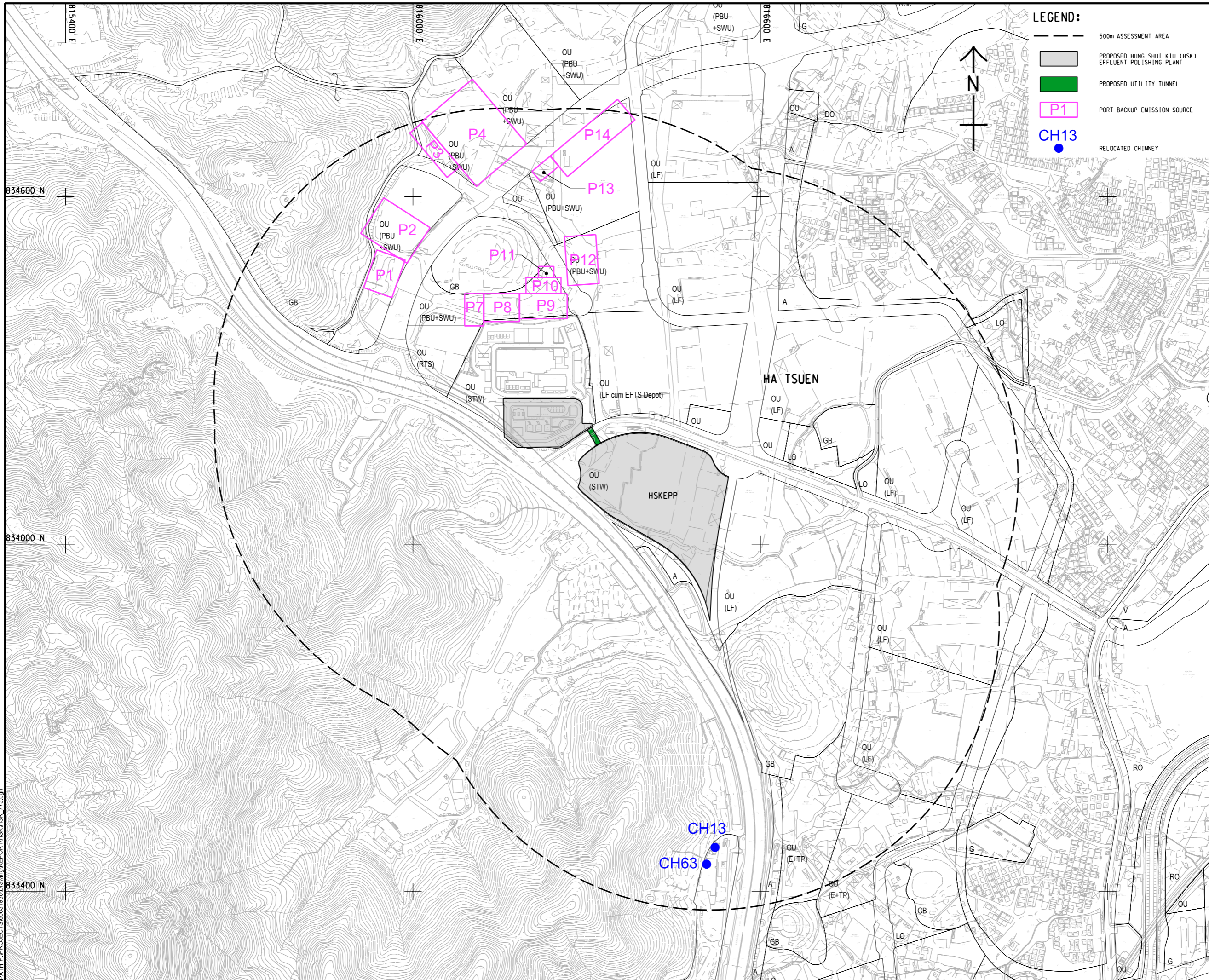
Industrial Chimney Emission Source

Source	Type	X	Y	Height (mAG)	Exit Temp. (K)	Exit velocity (m/s)	Stack Diameter (m)	Working Hour	RSP Emission Rate (g/s)	FSP Emission Rate (g/s)	NOx Emission Rate (g/s)	SO ₂ Emission Rate (g/s)
CH13	Point	816521.73	833476.35	50.00	477.15	6.00	0.60	0700 - 1900	7.200E-03	5.533E-03	1.333E-01	4.733E-03
CH63	Point	816507.00	833447.30	50.00	373.00	6.00	1.00	0700 - 1900	7.200E-03	5.533E-03	1.333E-01	4.733E-03

Remarks:

The emission inventory is adopted directly from Page 4, Appendix 3.2, Hung Shui Kiu New Development Area EIA (EIA-248/2016).

ISO A1 594mm x 841mm
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 Project Management Initials:
 Plot File by: ZHUCC 2022/11/26
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LEGEND:

- 500m ASSESSMENT AREA
- PROPOSED HUNG SHUI KIU (HSK) EFFLUENT POLISHING PLANT
- PROPOSED UTILITY TUNNEL
- P1
- PORT BACKUP EMISSION SOURCE
- CH13
- RELOCATED CHIMNEY



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PROJECT
 HUNG SHUI KIU
 EFFLUENT POLISHING
 PLANT AND
 YUEN LONG SOUTH
 EFFLUENT POLISHING
 PLANT - INVESTIGATION

CLIENT
 渠務署
 Drainage Services Department

CONSULTANT
 AECOM Asia Company Ltd.
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SUB-CONSULTANTS

ISSUE/REVISION

IR	DATE	DESCRIPTION	CHK.

STATUS

SCALE **DIMENSION UNIT**
 A1 1 : 3000 METRES

KEY PLAN

PROJECT NO. **CONTRACT NO.**
 60631936 CE 6/2019 (DS)

SHEET TITLE
 LOCATION OF INDUSTRIAL AND
 PORT BACKUP EMISSION SOURCE

SHEET NUMBER
 60631936/APPENDIX 3.7.3

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Appendix 3.7 Emission Inventory of Concurrent Projects

HSK/HT NDA development

Operation Phase

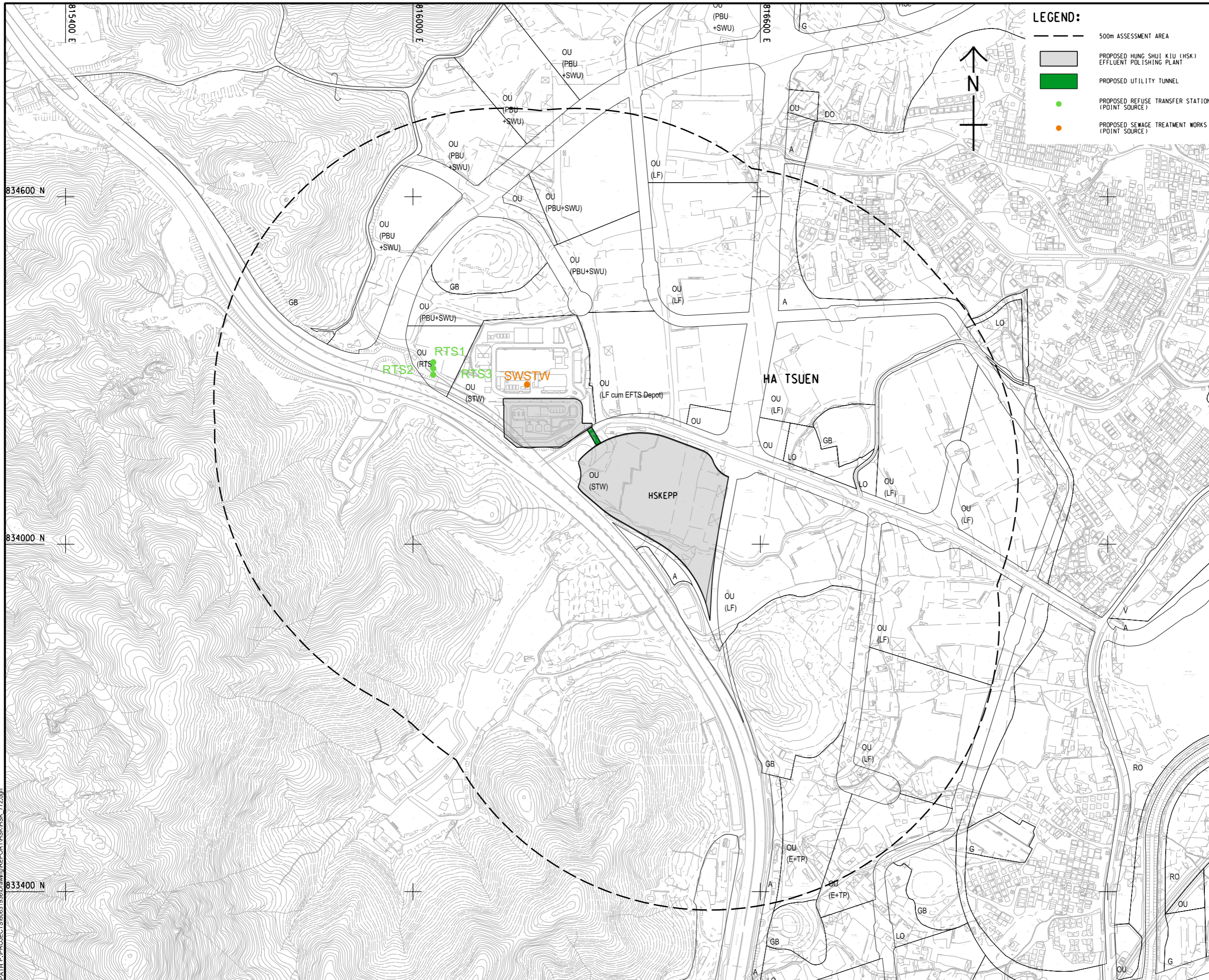
RTS and San Wai STW

Source	Type	X	Y	1-hour Average Emission Rate (OU/s)	Conversion Multiplier	5-second Average Emission Rate (OU/s)	Height (mAG)	Exit Temp. (K)	Exit velocity (m/s)	Stack Diameter (m)	Working Hour
RTS1	POINT	816034.93	834314.17	2.274E+02	2.3	5.229E+02	15.00	0.00	1.00	1.60	0000 - 2400
RTS2	POINT	816034.93	834303.67	2.274E+02	2.3	5.229E+02	15.00	0.00	1.00	1.60	0000 - 2400
RTS3	POINT	816034.93	834292.82	2.274E+02	2.3	5.229E+02	15.00	0.00	1.00	1.60	0000 - 2400
SWSTW	POINT	816197.03	834275.81	2.022E+02	2.3	4.650E+02	5.00	303.00	10.00	0.95	0000 - 2400

Remarks:

The emission inventory is adopted directly from Page 4, Appendix 3.8, Hung Shui Kiu New Development Area EIA (EIA-248/2016).

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 Project Management Initials:
 Plot File by: ZHUCC 2022/11/26
 PATH: P:\PROJECTS\60631936\DRAWING\REPORT\HSK_772.dgn



PROJECT
 HUNG SHUI KIU
 EFFLUENT POLISHING
 PLANT AND
 YUEN LONG SOUTH
 EFFLUENT POLISHING
 PLANT - INVESTIGATION

CLIENT
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 Drainage Services Department

CONSULTANT
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SUB-CONSULTANTS

ISSUE/REVISION

IR	DATE	DESCRIPTION	CHK.

STATUS

SCALE **DIMENSION UNIT**
 A1 1 : 3000 METRES

KEY PLAN

PROJECT NO. **CONTRACT NO.**
 60631936 CE 6/2019 (DS)

SHEET TITLE
 LOCATION OF ODOUR EMISSION
 SOURCE AT UPGRADE
 SAN WAI STW AND PLANNED RTS

SHEET NUMBER
 60631936/APPENDIX 3.7.2

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