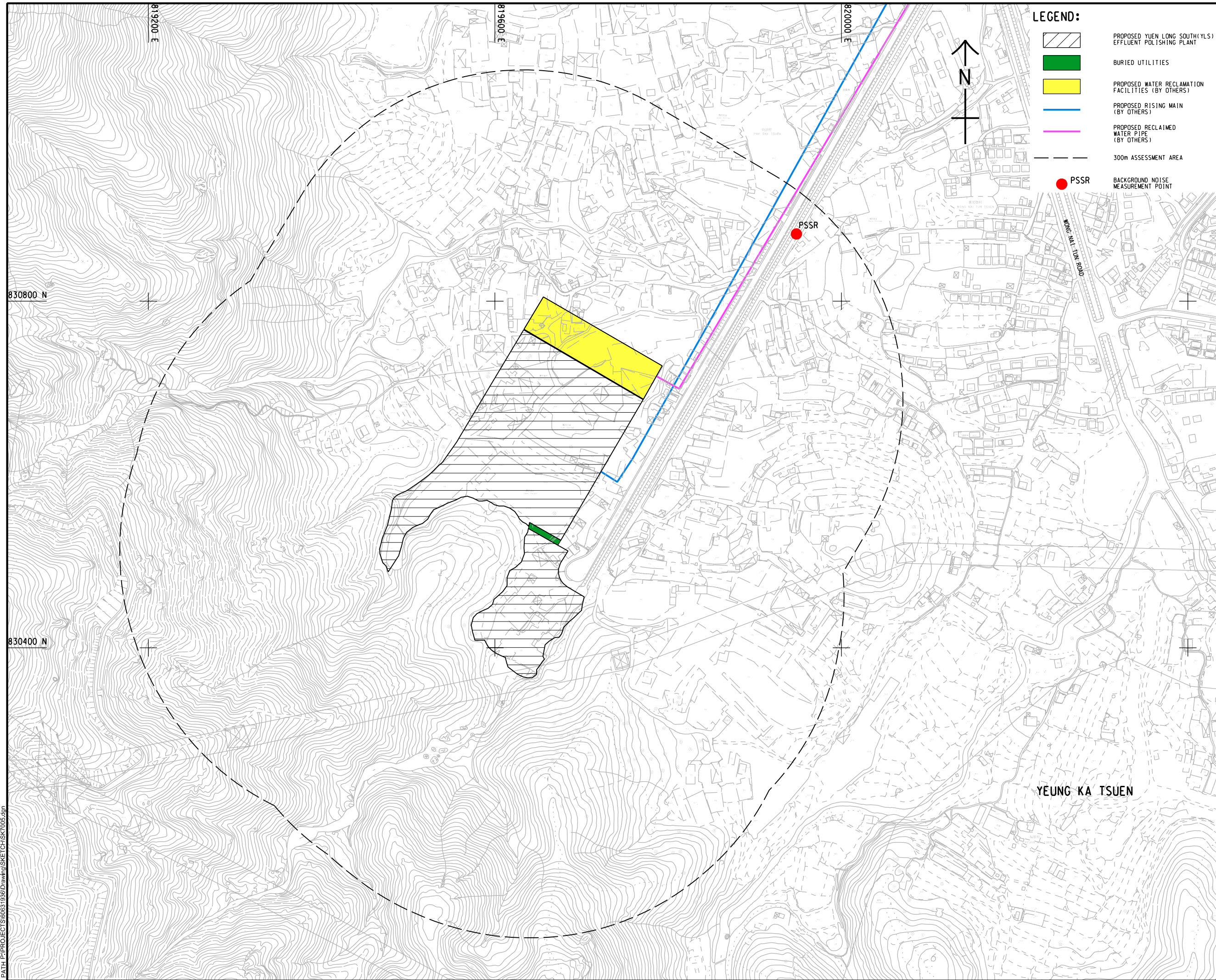









ISO A1 594mm x 841mm
 Approved: _____
 Checked: _____
 Designer: _____
 Project Management Initials: _____



LEGEND:

-  PROPOSED YUEN LONG SOUTH (YLS) EFFLUENT POLISHING PLANT
-  BURIED UTILITIES
-  PROPOSED WATER RECLAMATION FACILITIES (BY OTHERS)
-  PROPOSED RISING MAIN (BY OTHERS)
-  PROPOSED RECLAIMED WATER PIPE (BY OTHERS)
-  300m ASSESSMENT AREA
-  PSSR BACKGROUND NOISE MEASUREMENT POINT

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
 分判工程顧問公司:

ISSUE/REVISION

| NO. | DATE | DESCRIPTION | CHK. |
|-----|------|-------------|------|
| | | | |
| | | | |
| | | | |

STATUS
 狀況

SCALE
 比例尺

DIMENSION UNIT
 尺寸單位

A1 1 : 2000 METRES

KEY PLAN
 索引圖

PROJECT NO.
 項目編號

60631936

CONTRACT NO.
 合約編號

CE 6/2019 (DS)

SHEET TITLE
 圖紙名稱

LOCATION OF BACKGROUND
 NOISE MEASUREMENT

SHEET NUMBER
 圖紙編號

60631936/SK7005

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Plot File by: vicky.xia1
 PATH: P:\PROJECTS\60631936\Drawing\SKETCH\SK7005.dgn
 2021/7/26

YEUNG KA TSUEN

Appendix 4.1 Background Noise Survey

Measurement Result - PSSR

| Measurement Start Time | Noise Levels at Noise Measurement Point, dB(A) | | | | |
|------------------------|------------------------------------------------|------|------|-------|-------|
| | PSSR | | | | |
| | LAeq | LA10 | LA90 | LAMax | LAMin |
| 4/Jul/2021 00:00 | 55.9 | 53.5 | 45.1 | 82.4 | 43.1 |
| 4/Jul/2021 00:30 | 55.5 | 51.7 | 44.2 | 84.4 | 42.9 |
| 4/Jul/2021 01:00 | 54.3 | 53.2 | 43.9 | 77.7 | 42.2 |
| 4/Jul/2021 01:30 | 52.1 | 48.0 | 43.7 | 76.8 | 42.4 |
| 4/Jul/2021 02:00 | 61.1 | 55.3 | 44.0 | 86.4 | 42.4 |
| 4/Jul/2021 02:30 | 50.2 | 48.7 | 44.5 | 75.6 | 42.7 |
| 4/Jul/2021 03:00 | 55.9 | 50.4 | 44.3 | 84.2 | 42.2 |
| 4/Jul/2021 03:30 | 52.4 | 47.7 | 43.8 | 79.0 | 42.5 |
| 4/Jul/2021 04:00 | 50.5 | 48.2 | 43.8 | 74.7 | 42.4 |
| 4/Jul/2021 04:30 | 51.4 | 47.2 | 44.0 | 76.3 | 43.0 |
| 4/Jul/2021 05:00 | 50.1 | 53.4 | 43.9 | 67.5 | 42.4 |
| 4/Jul/2021 05:30 | 55.4 | 57.9 | 47.0 | 76.6 | 44.2 |
| 4/Jul/2021 06:00 | 54.8 | 55.5 | 46.2 | 76.1 | 44.3 |
| 4/Jul/2021 06:30 | 61.0 | 56.4 | 46.4 | 90.6 | 44.1 |
| 4/Jul/2021 07:00 | 56.3 | 58.0 | 46.1 | 76.4 | 43.9 |
| 4/Jul/2021 07:30 | 58.6 | 62.9 | 46.5 | 77.1 | 43.9 |
| 4/Jul/2021 08:00 | 63.1 | 63.8 | 60.4 | 81.5 | 57.8 |
| 4/Jul/2021 08:30 | 62.9 | 64.0 | 59.0 | 79.3 | 56.8 |
| 4/Jul/2021 09:00 | 64.0 | 64.3 | 60.0 | 88.7 | 57.6 |
| 4/Jul/2021 09:30 | 63.3 | 64.7 | 61.2 | 77.3 | 58.3 |
| 4/Jul/2021 10:00 | 62.8 | 63.2 | 49.0 | 88.0 | 46.7 |
| 4/Jul/2021 10:30 | 59.9 | 59.6 | 49.0 | 87.6 | 47.5 |
| 4/Jul/2021 11:00 | 59.1 | 61.1 | 47.9 | 81.9 | 45.9 |
| 4/Jul/2021 11:30 | 58.9 | 60.5 | 47.6 | 80.9 | 45.4 |
| 4/Jul/2021 12:00 | 65.1 | 62.7 | 49.7 | 97.0 | 47.6 |
| 4/Jul/2021 12:30 | 59.8 | 61.1 | 49.4 | 80.2 | 47.4 |
| 4/Jul/2021 13:00 | 59.7 | 60.9 | 47.9 | 85.8 | 45.5 |
| 4/Jul/2021 13:30 | 58.5 | 60.2 | 47.2 | 81.3 | 44.9 |
| 4/Jul/2021 14:00 | 58.4 | 61.0 | 48.0 | 77.9 | 45.5 |
| 4/Jul/2021 14:30 | 58.6 | 61.2 | 48.3 | 80.4 | 45.4 |
| 4/Jul/2021 15:00 | 58.4 | 61.6 | 48.4 | 78.1 | 45.8 |
| 4/Jul/2021 15:30 | 63.9 | 62.0 | 48.1 | 93.2 | 45.8 |
| 4/Jul/2021 16:00 | 59.7 | 61.3 | 48.5 | 84.3 | 46.1 |
| 4/Jul/2021 16:30 | 58.4 | 61.1 | 48.5 | 85.8 | 45.9 |
| 4/Jul/2021 17:00 | 57.7 | 59.9 | 48.9 | 77.2 | 45.7 |
| 4/Jul/2021 17:30 | 58.8 | 61.4 | 48.6 | 80.3 | 46.0 |
| 4/Jul/2021 18:00 | 58.7 | 60.9 | 48.4 | 83.2 | 46.3 |
| 4/Jul/2021 18:30 | 58.5 | 60.3 | 48.6 | 83.8 | 46.2 |
| 4/Jul/2021 19:00 | 62.9 | 60.1 | 47.5 | 95.1 | 44.8 |
| 4/Jul/2021 19:30 | 57.8 | 60.2 | 46.5 | 80.3 | 44.0 |
| 4/Jul/2021 20:00 | 57.0 | 60.5 | 51.7 | 78.2 | 47.2 |
| 4/Jul/2021 20:30 | 65.3 | 65.9 | 49.8 | 88.0 | 45.4 |
| 4/Jul/2021 21:00 | 57.3 | 60.4 | 47.7 | 82.4 | 44.6 |
| 4/Jul/2021 21:30 | 56.6 | 58.9 | 47.7 | 74.2 | 45.4 |
| 4/Jul/2021 22:00 | 56.0 | 57.4 | 47.5 | 78.9 | 44.3 |
| 4/Jul/2021 22:30 | 57.2 | 56.0 | 46.3 | 83.1 | 43.7 |
| 4/Jul/2021 23:00 | 54.9 | 53.8 | 45.9 | 74.8 | 44.0 |
| 4/Jul/2021 23:30 | 54.2 | 55.6 | 45.4 | 73.7 | 43.5 |


| Measurement Start Time | Noise Levels at Noise Measurement Point, dB(A) | | | | |
|------------------------|------------------------------------------------|------|------|-------|-------|
| | PSSR | | | | |
| | LAeq | LA10 | LA90 | LAMax | LAMin |
| 5/Jul/2021 00:00 | 58.7 | 55.4 | 45.1 | 86.5 | 43.3 |
| 5/Jul/2021 00:30 | 53.3 | 49.2 | 45.6 | 80.8 | 43.8 |
| 5/Jul/2021 01:00 | 53.1 | 50.4 | 45.1 | 80.3 | 43.1 |
| 5/Jul/2021 01:30 | 55.5 | 51.6 | 47.6 | 82.8 | 43.7 |
| 5/Jul/2021 02:00 | 52.9 | 57.4 | 48.8 | 63.1 | 45.4 |
| 5/Jul/2021 02:30 | 49.7 | 50.8 | 44.1 | 73.2 | 42.9 |
| 5/Jul/2021 03:00 | 53.4 | 47.5 | 44.4 | 77.7 | 43.2 |
| 5/Jul/2021 03:30 | 49.5 | 47.3 | 43.8 | 79.6 | 42.8 |
| 5/Jul/2021 04:00 | 51.9 | 48.6 | 45.7 | 75.4 | 44.0 |
| 5/Jul/2021 04:30 | 49.4 | 46.4 | 43.6 | 73.7 | 42.5 |
| 5/Jul/2021 05:00 | 54.4 | 56.7 | 43.8 | 74.9 | 42.3 |
| 5/Jul/2021 05:30 | 55.9 | 58.5 | 47.1 | 72.6 | 43.9 |
| 5/Jul/2021 06:00 | 57.8 | 58.2 | 46.1 | 78.7 | 43.4 |
| 5/Jul/2021 06:30 | 59.1 | 61.8 | 48.4 | 78.8 | 44.3 |
| 5/Jul/2021 07:00 | 61.9 | 64.2 | 47.3 | 85.6 | 44.6 |
| 5/Jul/2021 07:30 | 62.2 | 65.4 | 48.1 | 83.8 | 44.6 |
| 5/Jul/2021 08:00 | 63.9 | 66.4 | 50.4 | 87.5 | 46.8 |
| 5/Jul/2021 08:30 | 66.6 | 69.0 | 51.0 | 91.2 | 46.5 |
| 5/Jul/2021 09:00 | 65.2 | 68.6 | 52.8 | 87.0 | 50.1 |
| 5/Jul/2021 09:30 | 66.2 | 67.6 | 53.2 | 92.3 | 50.4 |
| 5/Jul/2021 10:00 | 64.1 | 67.2 | 53.7 | 83.9 | 50.3 |
| 5/Jul/2021 10:30 | 64.1 | 67.1 | 53.4 | 85.2 | 50.7 |
| 5/Jul/2021 11:00 | 64.3 | 67.1 | 53.1 | 87.9 | 50.5 |
| 5/Jul/2021 11:30 | 66.2 | 69.3 | 55.0 | 87.8 | 53.1 |
| 5/Jul/2021 12:00 | 64.2 | 67.0 | 53.9 | 82.7 | 52.8 |
| 5/Jul/2021 12:30 | 64.5 | 67.0 | 52.4 | 86.3 | 50.9 |
| 5/Jul/2021 13:00 | 64.4 | 66.4 | 53.1 | 87.3 | 51.3 |
| 5/Jul/2021 13:30 | 63.5 | 65.9 | 53.1 | 87.4 | 51.4 |
| 5/Jul/2021 14:00 | 63.9 | 66.9 | 53.8 | 84.9 | 52.0 |
| 5/Jul/2021 14:30 | 64.2 | 67.0 | 54.0 | 84.0 | 51.7 |
| 5/Jul/2021 15:00 | 64.3 | 66.0 | 53.0 | 88.3 | 51.1 |
| 5/Jul/2021 15:30 | 63.4 | 65.7 | 52.4 | 85.5 | 50.7 |
| 5/Jul/2021 16:00 | 62.5 | 65.3 | 52.3 | 85.8 | 50.8 |
| 5/Jul/2021 16:30 | 65.4 | 66.7 | 52.4 | 89.6 | 50.6 |
| 5/Jul/2021 17:00 | 62.4 | 65.4 | 52.2 | 86.7 | 50.7 |
| 5/Jul/2021 17:30 | 63.0 | 65.3 | 51.6 | 83.9 | 49.9 |
| 5/Jul/2021 18:00 | 63.2 | 62.9 | 50.6 | 91.7 | 49.4 |
| 5/Jul/2021 18:30 | 61.7 | 63.5 | 50.9 | 85.6 | 49.3 |
| 5/Jul/2021 19:00 | 60.2 | 62.7 | 50.8 | 83.5 | 46.8 |
| 5/Jul/2021 19:30 | 61.9 | 63.7 | 50.2 | 84.0 | 46.3 |
| 5/Jul/2021 20:00 | 60.4 | 62.6 | 53.3 | 82.2 | 50.1 |
| 5/Jul/2021 20:30 | 63.4 | 62.1 | 51.7 | 91.0 | 47.5 |
| 5/Jul/2021 21:00 | 63.2 | 63.1 | 49.2 | 88.7 | 46.1 |
| 5/Jul/2021 21:30 | 58.7 | 59.2 | 45.9 | 83.1 | 43.9 |
| 5/Jul/2021 22:00 | 56.7 | 57.3 | 46.4 | 79.4 | 43.8 |
| 5/Jul/2021 22:30 | 56.4 | 57.8 | 47.0 | 77.8 | 45.0 |
| 5/Jul/2021 23:00 | 57.8 | 57.7 | 47.1 | 80.5 | 44.5 |
| 5/Jul/2021 23:30 | 58.6 | 59.5 | 47.8 | 84.5 | 45.0 |

| | Noise Levels at Noise Measurement Point, dB(A) | | | | |
|----------------------|------------------------------------------------|------|------|-------|-------|
| | PSSR | | | | |
| | LAeq | LA10 | LA90 | LAMax | LAMin |
| Day time Minimum | 56 | 58 | 46 | 76 | 44 |
| Evening time Minimum | 56 | 56 | 46 | 74 | 44 |
| Night time Minimum | 49 | 46 | 44 | 63 | 42 |
| Day time Maximum | 67 | 69 | 61 | 97 | 58 |
| Evening time Maximum | 65 | 66 | 53 | 95 | 50 |
| Night time Maximum | 61 | 62 | 49 | 91 | 45 |

Remark: Free field noise measurements

Appendix 4.1 Background Noise Survey

List of Noise Measurement Location

| Measurement Location | | Photo Record |
|----------------------|---------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| ID | Description | |
| PSSR | The nearest open area to NSR YE03 and YE04 (121 and 125 Wong Nai Tun Tsuen respectively) ^[1] |  |

Noise Measurement Parameters and Duration

| Time Period | Parameters | Duration |
|-------------------------|--------------------------------------------------------------------------------------------------------|---------------------|
| Normal Working Day | L _{eq} (30 min), L _{max} , L _{min} , L ₁₀ and L ₉₀ | Continuous 24 hours |
| Sunday / Public Holiday | | |

Noise Measurement Results

| Measurement Location | Minimum L ₉₀ , dB(A) | | | Measurement Method |
|----------------------|---------------------------------|---------|-------|---------------------------|
| | Day | Evening | Night | |
| PSSR | 49 | 49 | 47 | Free-field ^[2] |

Assumed Fixed Plant Noise Criteria

| NSR | Description | Area Sensitive Rating | ANL, dB(A) | | | ANL-5, dB(A) | | | Measurement Location | Minimum L ₉₀ , dB(A) | | | Fixed Plant Noise Criteria, dB(A) | | |
|------|--------------------------------------------------|-----------------------|------------|---------|-------|--------------|---------|-------|----------------------|---------------------------------|---------|-------|-----------------------------------|---------|-------|
| | | | Day | Evening | Night | Day | Evening | Night | | Day | Evening | Night | Day | Evening | Night |
| YE03 | 121 Wong Nai Tun Tsuen | A ^[3] | 60 | 60 | 50 | 55 | 55 | 45 | PSSR | 49 | 49 | 47 | 49 | 49 | 45 |
| YE04 | 125 Wong Nai Tun Tsuen | A ^[3] | 60 | 60 | 50 | 55 | 55 | 45 | PSSR | 49 | 49 | 47 | 49 | 49 | 45 |
| YP01 | Planned Residential Development (R3.1e) | B ^[4] | 65 | 65 | 55 | 60 | 60 | 50 | PSSR | 49 | 49 | 47 | 49 | 49 | 47 |
| YP02 | Planned Residential Development (R3.4b) | B ^[4] | 65 | 65 | 55 | 60 | 60 | 50 | PSSR | 49 | 49 | 47 | 49 | 49 | 47 |
| YP03 | Planned Education Development (E3.3) | B ^[4] | 65 | 65 | 55 | 60 | 60 | 50 | PSSR | 49 | 49 | 47 | 49 | 49 | 47 |
| YP04 | Planned Education Development (E3.1) | B ^[4] | 65 | 65 | 55 | 60 | 60 | 50 | PSSR | 49 | 49 | 47 | 49 | 49 | 47 |
| YP05 | Planned Low-rise Residential Development (VR3.1) | B ^[4] | 65 | 65 | 55 | 60 | 60 | 50 | PSSR | 49 | 49 | 47 | 49 | 49 | 47 |

Remarks:

- [1] Due to access problems, background noise measurements are conducted near the entrances of the NSRs.
- [2] Façade corrections of 3 dB(A) have been added for free-field measurements.
- [3] The NSR is located in rural area and not affected by any influencing factor.
- [4] The NSR is located in a future new town and not affected by any influencing factor.

Tables

YLSEPP_Noise Survey_210719

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