



Date: 19<sup>th</sup> November 2025

Pages: 1 + Attachments

Secretary, Town Planning Board  
15/F, North Point Government Offices  
333 Java Road, North Point, Hong Kong

**BY EMAIL**

Dear Sir/Madam,

**SECTION 16 APPLICATION  
TOWN PLANNING ORDINANCE (CHAPTER 131)**

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**PROPOSED SOCIAL WELFARE FACILITY (RESIDENTIAL CARE HOME FOR THE ELDERLY) IN  
"VILLAGE TYPE DEVELOPMENT" ZONE ON APPROVED NAM SANG WAI OUTLINE ZONING  
PLAN NO. S/YL-NSW/10 AT LOTS 3670 RP (PART), 3671 RP (PART), 3672 RP (PART) AND 3673  
RP (PART) IN D.D.104, NAM SANG WAI, YUEN LONG**

**Town Planning Application No. A/YL-NSW/349 - Submission of Further Information (4)**

References are made to the emails dated 21<sup>st</sup> October 2025 and 7<sup>th</sup> November 2025 from the Planning Department in relation to technical comments from the Highway Department.

In order to address the comments, please find attached the copy of the response-to-comment (R to C) table with the Modification Plans of Noise Barrier and Street Furniture at **Appendix 1**, the Proof of Correspondence with EPD at **Appendix 2**, LC Paper No. CB(1)775/10-11(01) at **Appendix 3**, the Revised Environmental Assessment at **Appendix 4** and Revised Sewerage Impact Assessment at **Appendix 5**.

Should you have any queries with this submission, please feel free to contact Mr. Jeffrey Kwok and Mr. Kin Leung at [REDACTED] or the undersigned at [REDACTED].

Yours faithfully,  
FOR AND ON BEHALF OF  
DeSPACE (INTERNATIONAL) LIMITED

pp.

Greg Lam



**Proposed Social Welfare Facilities (Residential Care Home for the Elderly (RCHE)) in “Village Type Development” Zone, Lots 3670 RP (Part), 3671 RP (Part), 3672 RP (Part), 3673 RP (Part) and adjoining Government Land in D.D.104, Nam Sang Wai, Yuen Long (TPB ref.: A/YL-NSW/349)**

**Response-to-Comment Table**

Departmental Comments	Response
<p><b><u>Email dated 21st October 2025 refers:</u></b>  <b><u>Comment from HyD</u></b></p>	
<p>2. Please find the following comments from highways maintenance point of view:</p>	
<p>(a) The relevant portions of noise barriers proposed to be removed have not been clearly indicated or marked on the modification plan. Please clarify.</p>	<p>Please refer to <b>Appendix 1</b> for the Modification Plans of Noise Barrier and Street Furniture.</p>
<p>(b) Responses to our comments given on 18 July 2025 have not been indicated in the R-to-C table. In particular, our comments on FI No.1 provided in Item 2(c) were not addressed in this submission. Please clarify.</p>	<p>The noise impacts due to the deletion of the existing noise barriers has been considered and assessed in the applicant’s Noise Impact Assessment. All related comments were addressed in the previous FI submissions and subsequently endorsed by the EPD. EPD has no further comments on the anticipated noise impact due to the modification or alteration to the existing noise barriers. Please refer to <b>Appendix 2</b> for the correspondence with EPD regarding noise impact.</p>
<div style="border: 1px solid black; padding: 5px;"> <p>2. Please find the following comments on the submitted FI from highways maintenance point of view:</p> <p>(a) It is noticed that the R-to-C is mainly in response to comments of other departments. Presumably the relevant departments will provide comments to you.</p> <p>(b) Our previous comments on the the corresponding planning applications should remain valid (copy attached below).</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">               1GHMK.pdf (File-Checksum-00000001)         </div> <div style="text-align: center;">               1GHDC.pdf (File-Checksum-00000002)         </div> </div> <p>(c) As indicated in the submission, the proposed vehicular access would be in conflict with the existing noise barriers at Kam Pok Road (NB330, NB330A etc.). Modification or alternation to the existing noise barriers is required. Please request the applicant to review if the noise impacts in both construction and operation stages should also be assessed due to the deletion of the existing noise barriers at the vehicular access, and seek comments from EPD, as if necessary.</p> </div>	<p>According to the LC Paper No. CB(1)775/10-11(01) (see <b>Appendix 3</b>), the improvement and extension of Kam Pok Road including the ancillary noise barriers is not a designated project under the Environmental Impact Assessment Ordinance (Cap. 499). There is no Environmental Permit (EP) issued in nearby developments that requires the erection of the concerned noise barriers. The alteration of the noise barrier is therefore not subject to any violation to EP nor long-term adverse environmental impacts.</p>
<p>(c) Please clarify whether the noise implications due to the deletion or removal of existing noise barriers have been assessed in the noise impact assessment, and agreed by EPD. Presumably, the Transport Department would comment on the traffic data adopted for the noise impact assessment under the construction and operation phase.</p>	

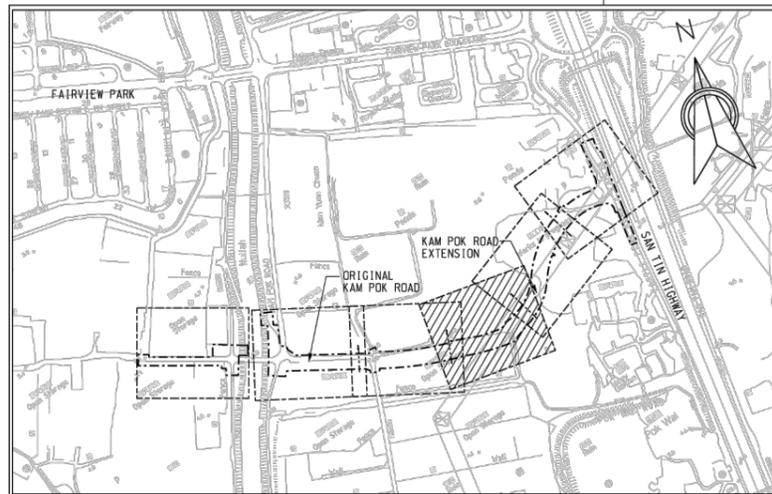
(d) Presumably, any modification or deletion works proposed due to the application, if approved, are to be carried out by the applicant at its own cost.	Noted with thanks.
<b>Email dated 7<sup>th</sup> November 2025 refers:</b>	
<b>Comment from EPD</b>	
<b>General</b>	Noted. Please refer to <b>Appendix 4</b> for the Revised Environmental Assessment.
1. Please highlight/indicate all changes for ease of review.	
<b>Noise</b>	
1. Please review whether the structures in the immediate north of the Site are NSRs.	New NSR is added in Table 3.5 and Figure 3.1.
2. Last RtC item 3 - Noted that the endorsement of the traffic forecast by TD is to be provided. In case TD has no comment on the methodology for traffic forecast only, the consultant should provide written confirmation from the respective competent party (e.g., traffic consultant) that TD's endorsed methodology has been strictly adopted in preparing the traffic forecast data, and hence the validity of traffic data can be confirmed.	Noted, the endorsement of the traffic forecast by TD will be provided once available.
3. Last RtC item 4ii - The consultant mentioned that a typical dormitory room is 40-50 m <sup>2</sup> , and typically 1 dormitory room comprises of 8 beds enclosed by full height partitions. Please confirm would such separated cells within a dormitory room affected the assumption of sound attenuation performance of the acoustic window. As in S3.4.14, it is also stated that "The proposed reference cases can provide noise reduction from 6dB(A) to 7dB(A) based on their corresponding room size. It is understood that the room size would also affect the sound attenuation performance."	The separated cells are not separated by full height partitions while 8 beds share the same window opening in 1 dormitory room, therefore, they are considered as 1 room and do not affect performance of acoustic window.
<b>Waste Management</b>	
1. 5.3.9 General refuse during construction phase: Please adopt 0.65kg per worker per day.	0.65kg per worker per day is adopted accordingly.
2. 5.4.1 General refuse during operation phase: Revise the estimated waste generation calculation to incorporate a recovery rate of 33%, as per the Monitoring of Solid Waste in Hong Kong 2023: The formula should be adjusted as follows: $1.44 / (1-33\%) \times \text{number of}$	The waste generation calculation is revised accordingly.

persons.	
<b>Land Contamination</b>	
1. 6.4.2 Please avoid describing unpaved areas as having “good ground condition.” Elaborate on whether the presence of metal/steel, casings, and other stored goods observed in aerial photos could indicate potential land contamination risks.	The section is revised.
2. Table 6.1 FSD: Please state in the summary that no Dangerous Goods licence, fire incidents, or related incident records were found.	The table is revised accordingly.
<b>Email dated 7<sup>th</sup> November 2025 refers:</b>	
<b>Comment from EPD</b>	
1. RtC item 2 & hydraulic assessment – Please take into consideration all the existing and planned developments utilising the proposed communal gravity sewer e.g. Y/YL-MP/7, Y/YL-MP/8, Y/YL-MP/11 etc.	More developments utilising the proposed communal gravity sewer are added in hydraulic assessment. Please refer to <b>Appendix 5</b> for the Revised Sewerage Impact Assessment.
2. Section 2.3.1 – Please state the party responsible for construction of sewers from manhole S1 to FSH1001886.	The construction responsibilities is provided in Section 2.4.3.
3. Section 2.3.2 & hydraulic assessment – As shown in Appendix D, the diameter of the proposed communal gravity sewer proposed under Y/YL-NSW/7 , A/YL-NSW/314 and Y/YL-MP/10 is 623mm, twin 750mm and twin 675mm respectively. Please revise the text and adopt a conservative approach for the pipe diameter in the hydraulic assessment.	Section 2.3.2 & hydraulic assessment are revised and conservative approach had been adopted.
4. Section 2.4.1 – a. Please revise as “New terminal manhole (namely S1) and manholes MH660, MH620 and MH580 will be constructed to collect..” b. Please revise “connect to the communal sewer” as “connect to manhole MH540”.	The Section is revised accordingly.
5. Section 2.4.2 – Please rearrange as “In case these planned sewers are not available at the time of completion of the Proposed Development, the Project Proponent will, after liaison with DSD and the other future developments near the Proposed Site, construct the sewers in order to cater the sewage discharge during operation of the Proposed Development should a population	The Section is revised accordingly.

intake be required. Otherwise, there will be no population intake until proposed sewerage system becomes available.”	
6. Section 2.5 – Please state the party responsible for maintenance of sewers from S1 to FSH1001886.	The maintenance responsibilities is provided in Section 2.5.3.
7. Section 3.1.2 – Please update with respect to the latest assessment.	The Section is updated.
8. Figure 3 & Section 2.3.2 & hydraulic assessment – The sewage disposal scheme is inconsistent with the hydraulic assessment. Please revise.	The Figure and hydraulic assessment are updated.
9. Appendix A – Please supplement the missing pages.	Appendix A is provided.

## Appendix 1

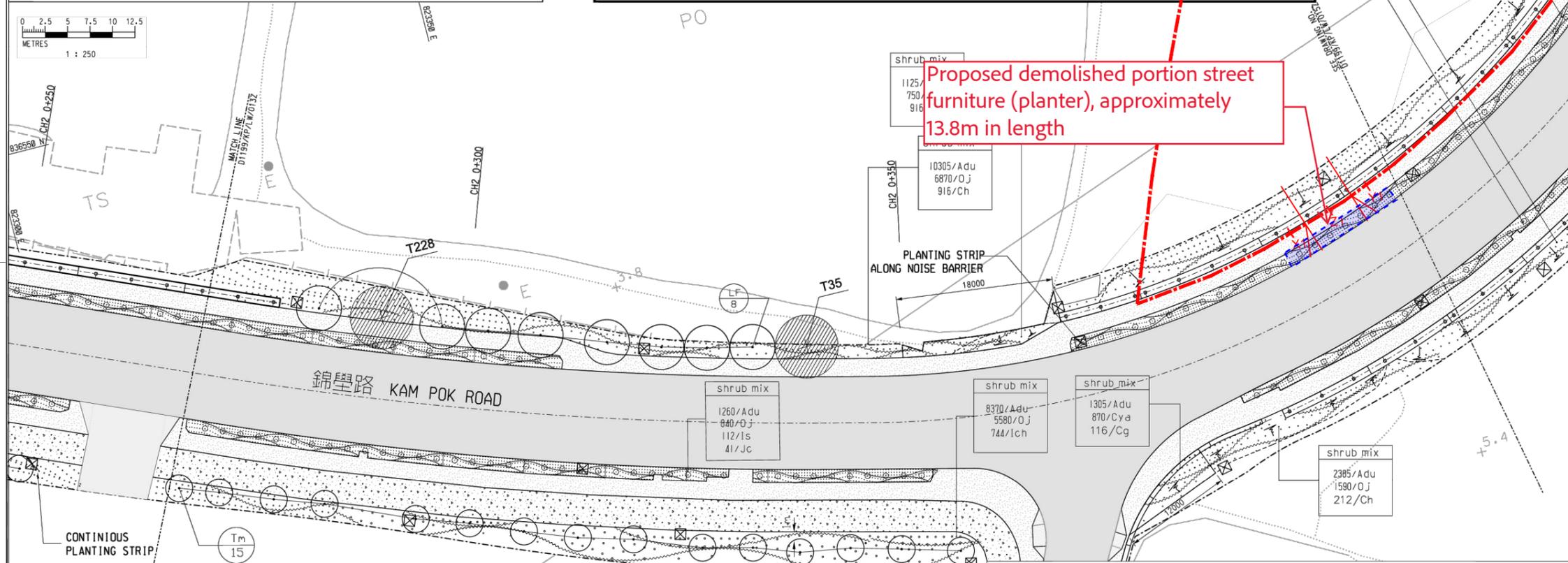
### Modification Plans of Noise Barrier and Street Furniture



KEY PLAN SCALE 1 : 5000



KEY	BOTANICAL NAME	CHINESE NAME	SIZE (HT x SPD)	SPACING	TOTAL QUANTITY	REMARKS
<b>GROUNDCOVERS :</b>						
Adu	Arachis duranensis	蔓花生	100 x 150	100 o.c.	25380	-
Oj	Ophiopogon japonicus	山麥冬	200 x 200	150 o.c.	15300	-
<b>SHRUBS :</b>						
Is	Ixora stricta	細葉紅花 龍船花	300 x 400	400 o.c.	168	shaped to form
Ch	Calliandra haematocephala	紅絨球	600 x 450	400 o.c.	1128	flowering, shaped to form
Jc	Juniperus chinensis	洋白柏	1500 x 600	2000 o.c.	41	-
Cya	Cyperus alternifolius	風車草	300 x 150	150 o.c.	1620	-
Cg	Canna generalis	大美人蕉	400 x 400	400 o.c.	1032	-
<b>COMPENSATORY TREES :</b>						
Tm	Terminalia montaly	細葉欖仁	HS	-	15	-
Lf	Liquidambar formosana	楓香	HS	min. 5m o.c.	8	DBH: 150mm; 3.5m(H) x 3m(S)



Proposed demolished portion street furniture (planter), approximately 13.8m in length

- NOTES :**
- ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED.
  - ALL LEVELS ARE IN MPD (METRE ABOVE HONG KONG PRINCIPAL DATUM).
  - ALL DRAWINGS SHALL BE READ IN CONJUNCTION WITH THE SPECIFICATION FOR LANDSCAPE AND ALL RELEVANT DRAWINGS AND SPECIFICATIONS.
  - ALL PLANTS TO BE TRUE TO SPECIES; PLANTS TO BE HEALTHY AND WITH THE HABIT AND SIZE OF THE PLANT SPECIFIED. PLANTS TO BE FREE FROM PESTS, DISEASE, PARASITES, DISCOLORATION AND DAMAGE AND SHALL HAVE A VIGOROUS FIBROUS ROOT SYSTEM WITH WELL DEVELOPED SHAPE FOR THE SPECIES AS SPECIFIED.
  - ALL PLANTS AND TREES SHALL BE PLANTED ON GRADE AND OPEN-BOTTOM PLANTERS. TREE LOCATIONS SHALL BE REFERRED TO RELEVANT APPROVED TREE REMOVAL APPLICATION.
  - SOIL LEVEL SHALL BE LOWERED BY 50MM FROM THE FINISHED LEVEL AND SLIGHTLY MOUND TO CENTRE.
  - SOIL MIX TO BE BACK FILLED TO A DEPTH OF 600MM WHERE SHRUB AND GROUND COVER PLANTINGS SHALL BE LOCATED AND 1200MM WHERE TREES SHALL BE LOCATED.
  - ORIGINAL SUB-SOIL SHALL BE BROKEN UP TO FACILITATE NATURAL DRAINAGE.

- LEGEND :**
- SITE BOUNDARY
  - C/W CARRIAGEWAY
  - F/P FOOTPATH
  - C/T CYCLE TRACK
  - RUN-IN
  - VERTICAL NOISE BARRIER
  - RETAINING WALL
  - PEDESTRIAN CROSSING
  - PLANTING
  - TRANSPLANTED TREES
  - COMPENSATORY TREES
  - WATER POINT (Ø 40M INTERVAL)

Rev.	Description of Revision	Date	Ckd.
Z	AS BUILT	APR 15	SIGNED
C	GENERAL REVISION	AUG 13	SIGNED
B	GENERAL REVISION	JUL 13	SIGNED
A	GENERAL REVISION	JAN 13	SIGNED

Client  
 路政署 (工程組)  
 HIGHWAYS DEPARTMENT  
 WORKS DIVISION

Consultants  

 MANNINGS  
 (Asia) Consultants Limited

Scale in A1	Date
1 : 250	FEB 2011

Designed GK	Drawn SAN	Checked JM
SNG		

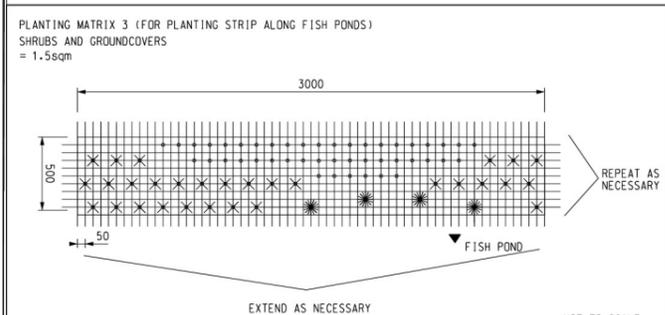
Design Team Leader	Date
SNG	FEB 2011

Approved	Date
KTC	FEB 2011

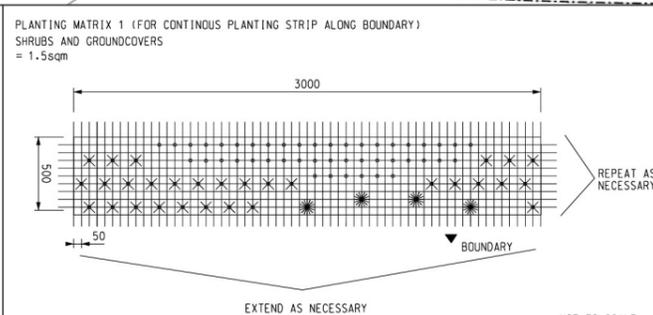
Project  
 Contract No. HY/2010/09  
 Improvement and Extension of  
 Kam Pok Road

Title  
 LANDSCAPE LAYOUT  
 PLAN

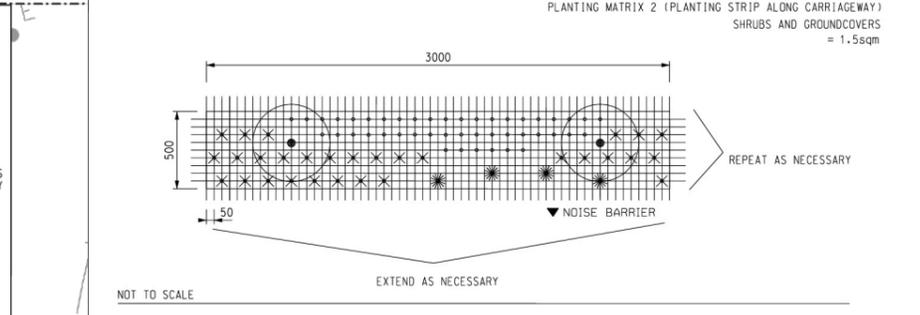
Drawing No.	Stage	Rev.
D1199/KP/LW/014		Z



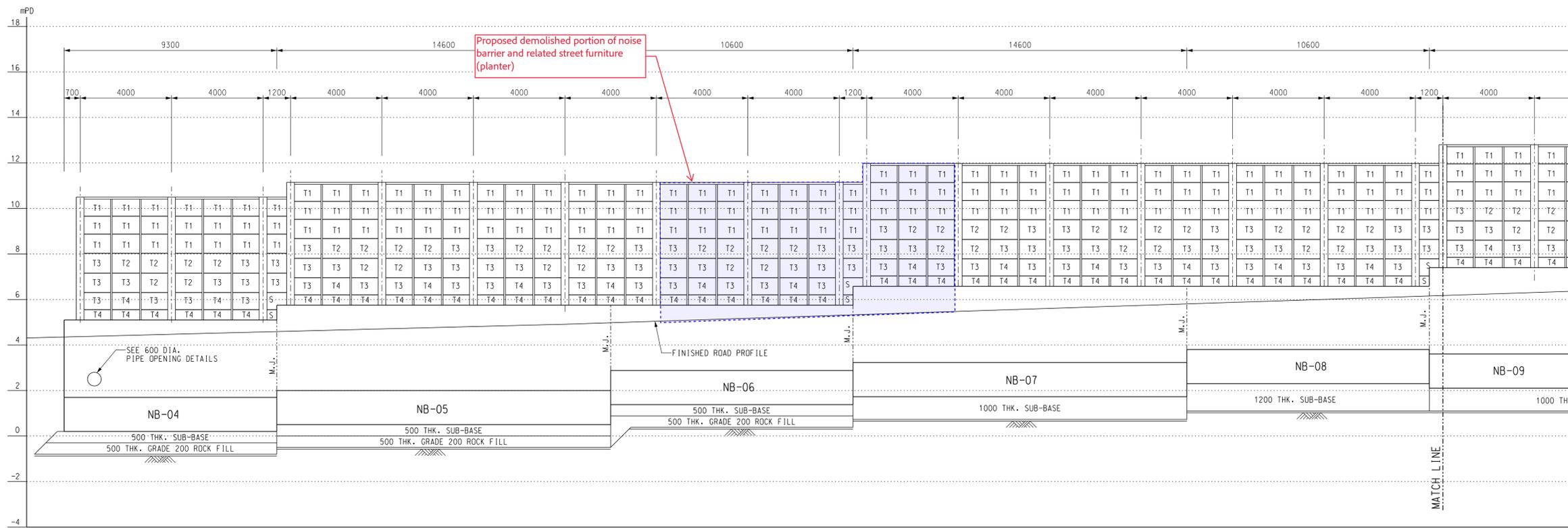
- LEGEND :**
- ARACHIS DURANENSIS (APPROX. 45NDS.)
  - × CYPERUS ALTERNIFOLIUS (APPROX. 30NDS.)
  - ☼ CANNA GENERALIS (APPROX. 4NDS.)



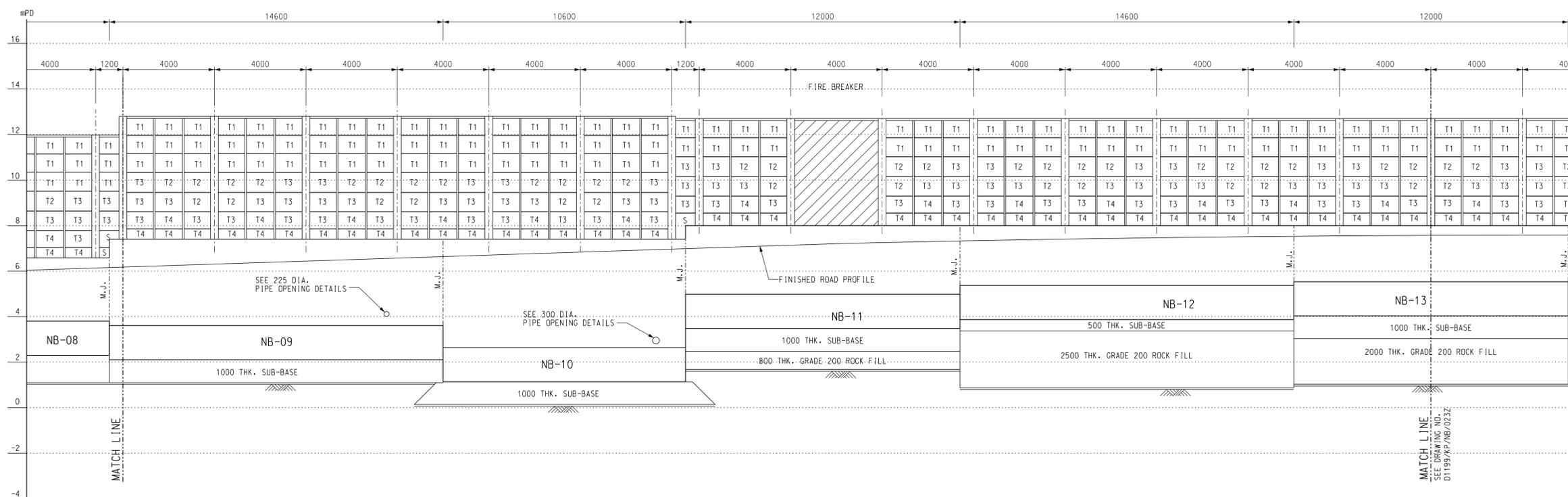
- LEGEND :**
- ARACHIS DURANENSIS (APPROX. 45NDS.)
  - × OPHIOPOGON JAPONICUS (APPROX. 30NDS.)
  - ☼ CALLIANDRA HAEMATOCEPHALA (APPROX. 4NDS.)



- LEGEND :**
- ARACHIS DURANENSIS (APPROX. 45NDS.)
  - × OPHIOPOGON JAPONICUS (APPROX. 30NDS.)
  - ☼ IXORA STRICTA (APPROX. 4NDS.)
  - JUNIPERUS CHINENSIS (APPROX. 2NDS. ; PLANTED IN SINGLE ROW IRRELEVANT OF PLANTER WIDTH)



ELEVATION FROM NB-04 TO NB-15



ELEVATION FROM NB-04 TO NB-15

NOTES :

1. FOR NOTES & LEGEND REFER TO DRAWING NO. D1199/KP/NB/021Z.
2. FOR ALL PIPE OPENING DETAILS REFER TO DRAWING NO. D1199/KP/NB/018Z.
3. ALL PIPES ARE SHOWN FOR INDICATIVE ONLY.

Rev.	AS BUILT	Date	OCT 13 2010	SIGNED	REVISED
	Description of Revision			CHKD.	

Client  
 路政署 (工程部)  
 HIGHWAYS DEPARTMENT  
 WORKS DIVISION

Consultants  
**MANNINGS**  
 (Asia) Consultants Limited

Scale in A1	1 : 100	Date	DEC 2010
Designed	GK	Drawn	TWN
Checked	JM		
Design Team Leader	SNG	Date	DEC 2010
Approved	KTC	Date	DEC 2010

Project  
 Contract No. HY/2010/09  
 Improvement and Extension of  
 Kam Pok Road

Title  
 NOISE BARRIER  
 ELEVATIONS

Drawing No.	D1199/KP/NB/022	Stage		Rev.	Z
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## Appendix 2

### Proof of Correspondence with EPD

**PROPOSED SOCIAL WELFARE FACILITIES (RESIDENTIAL CARE HOME FOR THE ELDERLY (RCHE)) IN “VILLAGE TYPE DEVELOPMENT”  
ZONE, VARIOUS LOTS IN D.D. 104 AND ADJOINING GOVERNMENT LAND, NAM SANG WAI, YUEN LONG  
(APPLICATION NO. A/YL-NSW/349)**

Departmental Comments (EPD dated 11.09.2025)	Response
<p>Based on the revised noise impact assessment chapter, please advise to the following points:</p> <p>1. The applicant is recommended to submit an updated Noise Impact Assessment under suitable mechanism (e.g., planning approval condition if the planning application is approved) to ensure that any changes in the layout of the proposed development after the planning approval can be taken into account and addressed in the updated NIA accordingly and thus full compliance with relevant noise criteria and relevant requirements under Professional Persons Environmental Consultative Committee Practice Notes, Hong Kong Planning Standards and Guidelines and Cap. 400 Noise Control Ordinance.</p>	<p>Noted.</p>
<p>2. S3.3.1 (last RtC item 2)</p> <p>i. The first sentence is still misleading and unclear. As it is not necessary to explain the control mechanism of NEL in the construction phase impact review, please consider removing it.</p>	<p>The first sentence is removed accordingly.</p>
<p>3. S3.4.10 (last RtC item 6)</p> <p>i. Noted that the endorsement of the traffic forecast by TD is to be provided. In case TD has no comment on the methodology for traffic forecast only, the consultant should provide written confirmation from the respective competent party (e.g., traffic consultant) that TD’s endorsed methodology has been strictly adopted in preparing the traffic forecast data, and hence the validity of traffic data can be confirmed.</p>	<p>Noted, the endorsement of the traffic forecast by TD will be provided once available.</p>
<p>4. S.3.4.14 (last RtC item 9)</p> <p>i. Please supplement the explanation in RtC to the noise chapter too.</p> <p>ii. Additionally, the consultant mentioned that a typical dormitory room is 40-50 m<sup>2</sup>. Please clarify how the cells are separated (and if the walls are full height), and if there are windows facing the corridor.</p>	<p>The Section is updated accordingly.</p> <p>From the layout, typically 1 dormitory room comprises of 8 beds enclosed by full height partitions with opening next to common toilet. No window facing the corridor.</p>
<p>5. Appendix 3.3</p> <p>i. Please supplement the date and time for site survey.</p>	<p>The Appendix is updated accordingly.</p>

<p>6. Appendix 3.4.22 i. Please add “(Excluding Container Vehicle)” after the “public parking area”.</p>	<p>The Section 3.4.22 is revised accordingly.</p>
<p>7. Appendix 3.4 and fig 3.4 , S3.4.23 i. There is a fixed noise assessment point located at 2F_N01, as indicated in Appendix 3.4. Please include the corresponding fixed noise assessment point in Figure 3.4. ii. Additionally, in the main text section S3.4.23 or any where appropriate, please provide an explanation for the selection of this fixed noise assessment point. It should be clarified if this point was chosen due to it being the most affected direction / the shortest distance to the noise sources. iii. Please also provide the calculation excel sheet for our checking.</p>	<p>The Figure is updated accordingly.  The explanation is provided in S3.4.23.  Noted.</p>
<p>8. Table 3.8 i. For better presentation, please directly present them with the “name” for such fixed noise source, rather than “open storage” under the column of “location”,</p>	<p>The Table is revised accordingly.</p>
<p>9. Last RtC item 3 in Comments on road traffic noise model i. Please explain if “EVA” stands for emergency vehicle access. ii. For the proposal to remove a portion of the noise barrier for the entrance for EVA, please confirm if this has been discussed with the relevant authority. Additionally, please document this communication.</p>	<p>Yes, “EVA” stands for emergency vehicle access. In relation to the Traffic Impact Assessment and comments from Highways Development, the proposed removal of noise barrier is submitted for comment, the information is provided in S3.4.7. Details of modification please refer to Appendix 3.5.</p>
<p>10. Appendix 3.1, and last RtC item 7 in comments on road traffic noise model i. As Link9 has been set to 100 km/h in accordance with the last RtC item 7 regarding comments on the road traffic noise model, please check and update the speed limit in Appendix 3.1 as well.</p>	<p>Appendix 3.1 is updated accordingly.</p>
<p>11. Fixed noise assessment from existing source i. There is open storage located at the SW direction from the proposed development site. Please review and justify if not included into the fixed noise assessment.</p>	<p>The shown open storage located at the SW direction near the Proposed Site are for storage of materials only. No noisy activities and noise generating equipment are expected in the area and therefore, not considered as noise source.</p>
<p>12. Fixed noise assessment from planning source i. Please include the discussion of planned fixed noise source in the main text, where appropriate. And state the possible noise mitigation measure in the planning and relevant noise standard.</p>	<p>Discussion of planned fixed noise source is provided in S3.4.16 to S3.4.20.</p>
<p>13. Appendix 3.4 and table 3.8 i. Distances are not tally, please check.</p>	<p>Table 3.8 is updated.</p>
<p>14. Appendix 3.4 and Road traffic noise model</p>	<p>The coordinates of 2F_N01 in Appendix 3.4 is updated.</p>

Departmental Comments (EPD dated 18.07.2025)	Response
<p><u>Noise</u>  1. S3.2.1  i. "Good Practices on Pumping System Noise Control; and Good Practices on Ventilation System Noise Control" has been obsoleted and replaced by "Good Practices on the Control of Noise from Electrical &amp; Mechanical Systems". Please note and update.</p>	<p>The guideline has been updated accordingly.</p>
<p>2. S3.3.1  i. The statement of "There is no statutory control for noise arising from construction activities (except for percussive piling and the use of hand-held percussive breakers and air compressors) during non-restricted hours" is misleading and unclear. Please note that the Cap 400C&amp;D Regulations require that such equipment comply with the noise emission standard and shall be fitted with NEL, rather than controlled under the aspect of "non-restricted hours/restricted hour". Please rephrase respective sentences.</p> <p>ii. Please also consider to replace the relevant part in S3.3.1 with below: "ProPECC PN1/24 offers guidance on the existing control on noise from construction activities under the Noise Control Ordinance (NCO) and Environmental Impact Assessment Ordinance (EIAO). It also outlines the requirements and recommendations on the practices for minimizing construction noise. The noise generated by construction activities for the project during non-restricted hours (7 a.m. to 7 p.m. on any day that is not a Sunday or general holiday) should be minimized to the greatest extent practicable. Additionally, the construction noise at the facade of the respective noise-sensitive receivers should not exceed the following noise levels, as summarised in Table 3.1 below. "</p>	<p>The statement is revised accordingly.</p> <p>The statement is revised accordingly.</p>
<p>3. S3.4.2  i. Please suggest the type of area and justify the corresponding area sensitive rating. Please also add the following after this sub-section: <i>"In any event, the ASR assumed in this report is for indicative assessment only. It should be noted that the noise emanating from any place other than domestic premises, a public place or a construction site is controlled under Section 13 of the Noise Control Ordinance. At the time of investigation, the Noise Control Authority shall</i></p>	<p>The ASR is discussed and the sub-section is added in Section 3.4.3 and 3.4.4 accordingly.</p>

i. Please separate the site boundary for the projects A/YL-NSW/348 and A/YL-NSW/349 respectively.	
13. Appendix 3.2 i. Typo of "Multi-prupose room", please check should it be "multi-purpose room"	Appendix 3.2 is revised accordingly.
14. Planning statement S5.7.2 i. It is noted in the planning statement that "during the operation stage, air conditioning will be provided for the proposed development and not relied on openable window for ventilation, no adverse fixed noise impact and road traffic impact to the Proposed Scheme is expected". However, this differs from the description provided in the NIA report. Please review this discrepancy.  ii. Additionally, even equipped with fixed-glazing with air-conditioning, a more stringent indoor noise criteria for fixed noise source (i.e. 10 dB(A) below the ANL) should be applied to the proposed development. Please note and review.	Please be clarified that air conditioning will be provided for the project while openable window for ventilation is also provided for Dormitory.  Noted.
<u>Comments on the Road Traffic Noise Model</u> 1. Please check the noise model, the unmitigated noise level in the model generated is not tally with the appendix 3.2.	Noise model and Appendix 3.2 are revised accordingly.
2. There are breaks on the noise barrier in the model, please check, and revise if needed.	Refer to building plan in Appendix, part of the noise barrier will be removed for entrance of EVA.
3. Please provide information of the height of existing noise barrier, for our checking.	The height of existing noise barrier is obtained by site observation.
4. Texture depth is usually 1.2m, in the model it is 1.0m. Please check.	The texture depth is set to 1.2m accordingly.
5. Please check if the surface for the below segments at San Tin Highway, such as should it be bitumen instead of pervious?	Bitumen is set for the mentioned segments accordingly.
6. The speed limit for flow link 9 is 100 km/h. Only the zone refer to green coloured below is limited to 50 km/h, but it is located near the roundabout that outside 300m assessment area. Please check.	The speed limit for flow link 9 is set to 100 km/h accordingly.
7. We noted that the is NSR '2F_N30' in the appendix 3.2, but not in the figure and model, please clarify.	Appendix 3.2 is revised accordingly.

Departmental Comments (EPD dated 27.06.2025)	Response
<u>General</u>	

## Appendix 3

LC Paper No. CB(1)775/10-11(01)

**For information**

**Legislative Council Panel on Transport**

**Improvement and Extension of Kam Pok Road**

**PURPOSE**

This paper informs Members of our proposal to upgrade **6829TH** – Improvement and Extension of Kam Pok Road (the Project) to Category A for the provision of a direct route connecting Tai Sang Wai to Castle Peak Road (Tam Mi), and to relieve the traffic at the junction of Fairview Park Boulevard and Kam Pok Road at Yuen Long.

**PROJECT SCOPE**

2. The scope of **6829TH** (the Project) comprises –
  - (a) construction of a new section of single two-lane carriageway of approximately 490 metres (m) in length and 10.3m in width with associated footpaths of 2m in width connecting the existing Kam Pok Road to Castle Peak Road (Tam Mi);
  - (b) improvement of a section of Kam Pok Road of approximately 145m in length (east of Pok Wai South Road) to a single two-lane carriageway of 10.3m in width with associated footpaths of 2m in width;
  - (c) improvement of a road section of approximately 155m in length between Yau Pok Road and Man Yuen Road to a single two-lane carriageway of 7.3m in width with associated footpaths of 2m in width;
  - (d) construction of sections of cycle tracks of 360m in length and 3.5m in width along a section of Kam Pok Road; and

- (e) ancillary works including drainage, water supplies, slope and landscaping works; construction of vertical noise barriers; and provision of lighting.

———— A layout plan showing the proposed works is at **Enclosure 1**. An artist's impression showing the roads concerned after completion of the Project is at  
———— **Enclosure 2**.

3. We have substantially completed the detailed design for the Project. We plan to commence the construction works in May 2011 for substantial completion and opening to traffic in December 2012 and full completion in March 2013<sup>1</sup>.

## JUSTIFICATIONS

4. The existing roads connecting the open storage yards and port back-up sites in Tai Sang Wai and areas to the south of Fairview Park Boulevard (through which traffic can gain access to the external road network via the Fairview Park Boulevard Roundabout of San Tin Highway) are mostly sub-standard single-lane unpaved village roads without road lighting, drainage system and road markings, which are grossly inadequate for carrying traffic with a high composition of heavy goods vehicles. At present, the bulk of the traffic from Tai Sang Wai (mainly heavy good vehicles generated by the open storage and port back-up operations in the area) prefers to use Kam Pok Road (a private single two-lane road) and Fairview Park Boulevard (a private dual two-lane road), being the shortest route, as opposed to Kam Pok Road and Castle Peak Road (Tam Mi), to gain access to the external road network via the Fairview Park Boulevard Roundabout of San Tin Highway. This gives rise to the following problems –

- (a) There have been conflicts between the residents of Fairview Park, villagers of San Tin and operators of the nearby warehouses / container yards over the use of Fairview Park Boulevard. The owners of Fairview Park claimed that only Fairview Park residents and those who had been given permission by them have the right of way through the Fairview Park Boulevard.
- (b) The relatively large volume of container and heavy vehicle traffic generated by the open storage and port back-up operations using

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<sup>1</sup> Landscaping works and installation of an irrigation system and noise barriers will be conducted between December 2012 and March 2013.

the Fairview Park Boulevard, which is in fact designed for and mainly used by residential traffic, has given rise to safety concerns.

5. Moreover, according to the relevant approved Outline Zoning Plan, the existing open storage and port back-up sites in Tai Sang Wai will be phased out and converted into residential and/or recreational developments. The existing sub-standard roads will not be able to cope with the future developments in Tai Sang Wai and the existing road junction at Fairview Park Boulevard and Kam Pok Road<sup>2</sup>. Additional traffic from the future developments at Tai Sang Wai would strain the already tight capacity of the junction. It may also be inappropriate to require the future traffic from the Tai Sang Wai development to access the external road network via Fairview Park Boulevard given the concern regarding the right of way set out in paragraph 4(a) above. Therefore, there is a need to provide one more route for external access other than Fairview Park Boulevard.

6. With the completion of the Project, there will be a direct and convenient alternative link between the existing open storage and port back-up sites in Tai Sang Wai and Castle Peak Road (Tam Mi). Also, the Project will reduce the amount of traffic going through the Fairview Park Boulevard / Kam Pok Road junction<sup>3</sup> and will help meet the anticipated traffic demand arising from the developments of the Tai Sang Wai area. As the heavy vehicles from Tai Sang Wai are expected to use the new road for accessing the external road network due to shorter travelling time, the volume of heavy goods vehicle traffic on Fairview Park Boulevard is expected to reduce. This will help segregate residential and freight traffic, and in turn improve road safety and resolve the problem arising from the right of way of Fairview Park Boulevard.

## **FINANCIAL IMPLICATIONS**

7. We estimate the cost of the Project to be \$148.6 million in money-of-the-day (MOD) prices, made up as follows –

---

<sup>2</sup> On completion of the future development in the area in the longer term, this junction will be operating beyond its capacity by 36% in the peak hours.

<sup>3</sup> With the new road to handle traffic between Tai Sang Wai and Castle Peak Road (Tam Mi), the junction at Fairview Park Boulevard and Kam Pok Road is expected to be able to operate with a 15% reserve capacity at peak hours in the long term.

	<b>\$ million</b>	
(a) Road and drainage works	26.3	
(b) Underground box structure and piling works for road formation	48.1	
(c) Water works	3.8	
(d) Noise barriers	30.7	
(e) Slope and landscaping works	11.0	
(f) Lighting	3.0	
(g) Contingencies	<u>10.1</u>	
	Sub-total <u>133.0</u>	(in September 2010 prices)
(h) Provision for price adjustment	<u>15.6</u>	
	Total <u>148.6</u>	(in MOD prices)

8. We estimate that the proposed works will create about 152 jobs (132 for labourers and another 20 for professional/technical staff) providing a total employment of 3 009 man-months.

## **PUBLIC CONSULTATION**

9. We consulted the San Tin Rural Committee and the Traffic and Transport Committee of the Yuen Long District Council on 20 July 2009 and 24 July 2009 respectively. Members of both Committees supported the implementation of the Project.

10. We gazetted the proposed works under the Roads (Works, Use and Compensation) Ordinance (Cap. 370) (the Ordinance) on 25 September 2009. We received eight objections of which seven remained unresolved and one was

withdrawn conditionally. Details of these unresolved objections<sup>4</sup> and the Administration's response are at **Enclosure 3**.

11. Having considered the unresolved objections, the Chief Executive-in-Council authorised the proposed works under the Ordinance on 5 October 2010 and the notice of authorisation was gazetted on 12 November 2010.

## **ENVIRONMENTAL IMPLICATIONS**

12. The Project is not a designated project under the Environmental Impact Assessment Ordinance (Cap. 499). We are conducting an Environmental Review (ER) for the project. The preliminary findings of the ER indicate that the project will not cause long-term adverse environmental impacts with implementation of the proposed mitigation measures.

13. We will incorporate the environmental mitigation measures recommended in the ER Report into the works contract to control pollution arising from construction works within established standards and guidelines. These measures include the use of quiet construction plant and temporary noise barriers to mitigate noise generation from construction activities; frequent cleaning and watering of the site and provision of wheel-washing facilities to reduce dust nuisance; and adoption of good site practices set out in the Recommended Pollution Control Clauses issued by the Environmental Protection Department. For mitigating the traffic noise impact during operation of the project, we will provide noise barriers to protect the sensitive receivers located in the vicinity as proposed in the ER Report. Furthermore, we will implement the Environmental Monitoring and Audit (EM&A) programme recommended in the ER Report. We have included in the project estimate the cost for implementation of the environmental mitigation measures recommended in the ER Report and the EM&A programme.

14. During planning and design stages, we have considered measures to reduce the generation of construction waste where possible (e.g. using metal site hoardings and signboards so that these materials can be recycled or reused in other projects). In addition, we will require the contractor to reuse inert construction waste (e.g. suitable excavated materials and demolition materials) on site or in other suitable construction sites as far as possible, in order to minimise the disposal of inert construction waste to public fill reception

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<sup>4</sup> Under the Ordinance, an objection which is not withdrawn or is withdrawn with conditions is treated as an unresolved objection and will be submitted to the Chief Executive-in-Council for consideration.

facilities<sup>5</sup>. We will encourage the contractor to maximise the use of recycled or recyclable inert construction waste, as well as the use of non-timber formwork to further minimise the generation of construction waste.

15. We will also require the contractor to submit for approval a plan setting out the waste management measures, which will include appropriate mitigation means to avoid, reduce, reuse and recycle inert construction waste. We will ensure that the day-to-day operations on site comply with the approved plan. We will require the contractor to separate the inert portion from non-inert construction waste on site for disposal at appropriate facilities. We will control the disposal of inert construction waste and non-inert construction waste to public fill reception facilities and landfills respectively through a trip-ticket system.

16. We estimate that the Project will generate in total about 24 000 tonnes of construction waste. Of these, we will reuse about 2 000 tonnes (8.3%) of inert construction waste on site and deliver about 19 000 tonnes (79.2%) of inert construction waste to public fill reception facilities for subsequent reuse. In addition, we will dispose of about 3 000 tonnes (12.5%) of non-inert construction waste at landfills. The total cost for accommodating construction waste at public fill reception facilities and landfill sites is estimated to be about \$0.9 million for this project (based on a unit cost of \$27 per tonne for disposal at public fill reception facilities and \$125 per tonne<sup>6</sup> at landfills).

## **HERITAGE IMPLICATIONS**

17. The Project will not affect any heritage site, i.e. all declared monuments, proposed monuments, graded historic sites/building, sites of archaeological interest and Government historic sites identified by the Antiquities and Monuments Office.

## **LAND ACQUISITION**

18. A total of 35 private lots will be affected by the Project and the total area to be resumed is about 15 939 square metres (m<sup>2</sup>). No building lot

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<sup>5</sup> Public fill reception facilities are specified in Schedule 4 of the Waste Disposal (Charges for Disposal of Construction Waste) Regulation. Disposal of inert construction waste in public fill reception facilities requires a license issued by the Director of Civil Engineering and Development.

<sup>6</sup> This estimate has taken into account the cost for developing, operating and restoring the landfills after they are filled and the aftercare required. It does not include the land opportunity cost for existing landfill sites (which is estimated at \$90 per m<sup>3</sup>), nor the cost to provide new landfills (which is likely to be more expensive) when the existing ones are filled.

will be resumed. There are 95 structures to be cleared within the private land, of which no domestic structure is involved. The Project also involves clearance of about 7 955 m<sup>2</sup> of Government land with 10 non-domestic structures. The estimated cost of land acquisition and clearance is about \$54 million. The cost of land acquisition will be charged to **Head 701 - Land Acquisition**.

## **TREE PROPOSAL**

19. Of the 104 trees within the project boundary, 70 trees will be felled and 34 trees will be transplanted off-site. None of the affected trees are important trees<sup>7</sup>. We will incorporate planting proposals as part of the Project, including an estimation of about 101 trees and 278 000 shrubs which totals to approximately 7 980 m<sup>2</sup> of planting area.

## **THE WAY FORWARD**

20. We intend to seek the funding support of the Public Works subcommittee and Finance Committee of the Legislative Council in January 2011 and February 2011 respectively to fully upgrade the Project to Category A. Subject to funding approval, we plan to start construction works in May 2011 for substantial completion and opening to traffic in December 2012 and full completion in March 2013.

## **ADVICE SOUGHT**

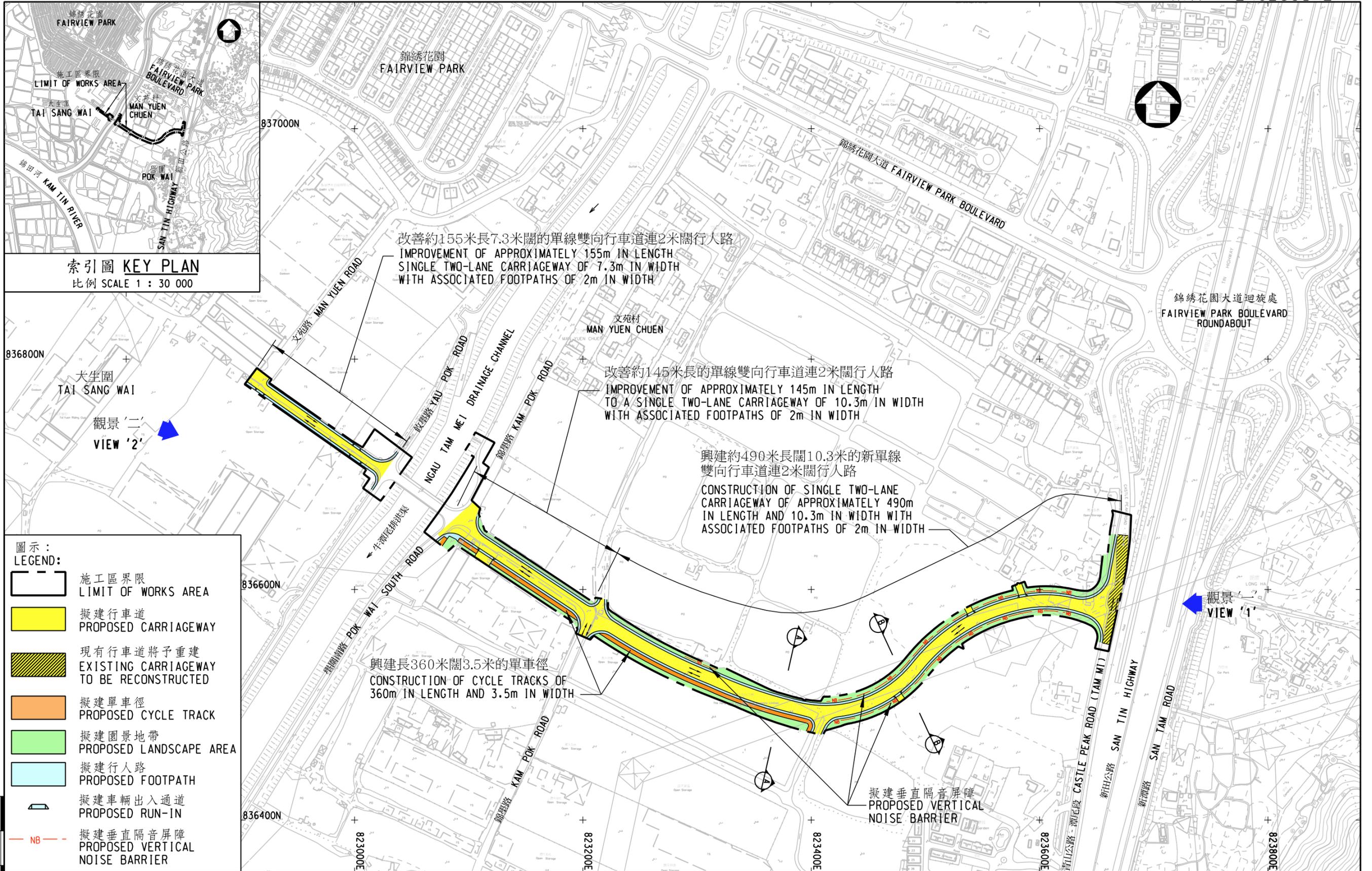
21. Members are invited to note the content of this paper.

## **Transport and Housing Bureau December 2010**

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<sup>7</sup> “Important trees” refer to trees in the Register of Old and Valuable Trees, or any other trees that meet one or more of the following criteria –

- (a) trees of 100 years old or above;
- (b) trees of cultural, historical or memorable significance, e.g. Fung Shui trees, trees as landmark of monastery or heritage monument, and trees in memory of important persons or events;
- (c) trees of precious or rare species;
- (d) trees of outstanding form (taking account of overall tree size, shape and any special features), e.g. trees with curtain-like aerial roots, trees growing in unusual habitat; or
- (e) trees with trunk diameter equal to or exceeding 1.0 m (measured at 1.3 m above ground level), or with height/canopy spread equal to or exceeding 25 m.



圖示：  
LEGEND:

- 施工區界限  
LIMIT OF WORKS AREA
- 擬建行車道  
PROPOSED CARRIAGEWAY
- 現有行車道將予重建  
EXISTING CARRIAGEWAY TO BE RECONSTRUCTED
- 擬建單車徑  
PROPOSED CYCLE TRACK
- 擬建園景地帶  
PROPOSED LANDSCAPE AREA
- 擬建行人路  
PROPOSED FOOTPATH
- 擬建車輛出入通道  
PROPOSED RUN-IN
- 擬建垂直隔音屏障  
PROPOSED VERTICAL NOISE BARRIER

50 mm SCALE 1 : 1

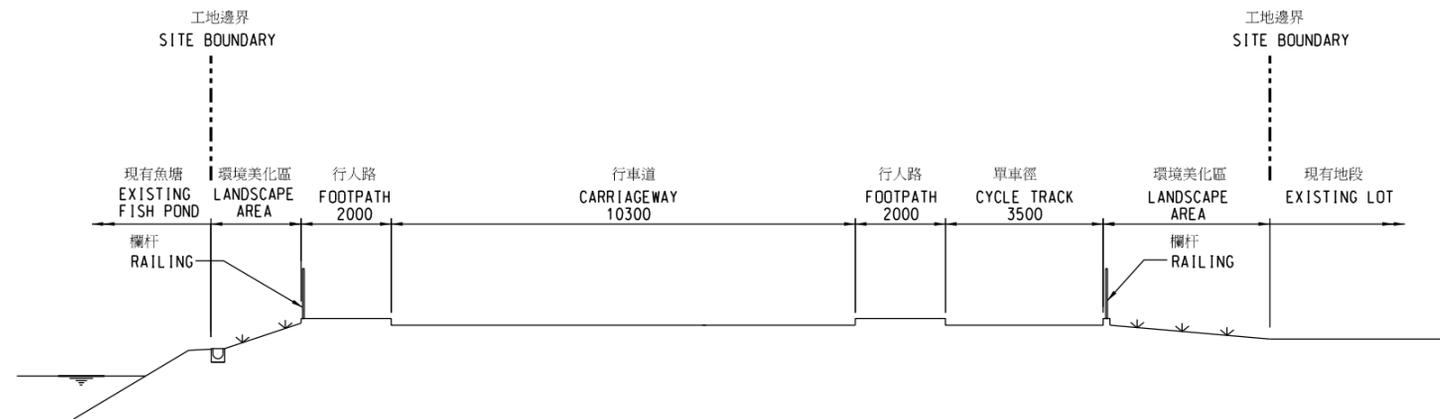
圖則名稱 drawing title	工程計劃項目第 829TH 號 錦學路的改善及擴建工程 - 平面圖 PWP ITEM No. 829TH IMPROVEMENT AND EXTENSION OF KAM POK ROAD - LAYOUT PLAN
--------------------	---

	職位 post	姓名 name	簽署 initial	日期 date
設計 designed	E/NT3-3	W.K. FONG	SIGNED	06.12.10
繪圖 drawn	TO/3-3	H.S. LAM	SIGNED	06.12.10
核對 checked	E/NT3-3	W.K. FONG	SIGNED	06.12.10
批核 approved	SE/NT3	P.L. KAN	SIGNED	06.12.10

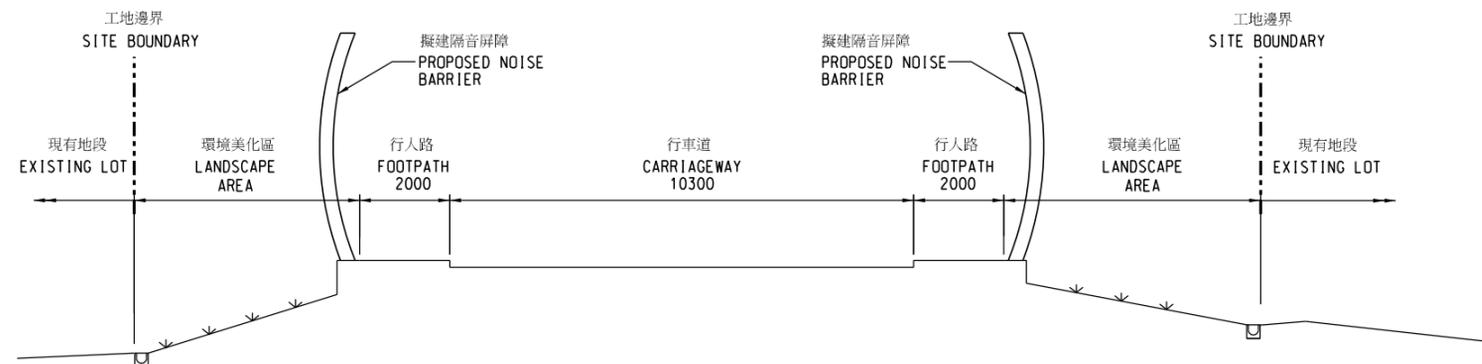
版權所有不得翻印 COPYRIGHT RESERVED	比例 scale 1 : 3 000	A3
辦事處 office	工程部 WORKS DIVISION	

圖則編號 drawing no.	HWDYL073B-SP0008
	HIGHWAYS DEPARTMENT HONG KONG 路政署

- 註釋：  
NOTES:
1. 除特別註明外，所有量度均以毫米為單位。  
ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED.
  2. 所有水平均以米為單位並在香港主水平基準上。  
ALL LEVELS ARE IN METRE ABOVE HONG KONG PRINCIPAL DATUM.



切面圖 SECTION A-A



切面圖 SECTION B-B

50 mm SCALE 1 : 1

圖則名稱 drawing title

工程計劃項目第 829TH 號  
錦學路的改善及擴建工程 - 切面圖

PWP ITEM No. 829TH  
IMPROVEMENT AND EXTENSION OF KAM POK ROAD - SECTIONS

	職位 post	姓名 name	簽署 initial	日期 date
設計 designed	E/NT3-3	W.K. FONG	SIGNED	09.11.10
繪圖 drawn	T0/3-3	H.S. LAM	SIGNED	09.11.10
核對 checked	E/NT3-3	W.K. FONG	SIGNED	09.11.10
批核 approved	SE/NT3	P.L. KAN	SIGNED	09.11.10

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比例 scale A3  
1 : 150

圖則編號 drawing no.  
HWDYL073B-SP0004

辦事處 office  
工程部  
WORKS DIVISION

HIGHWAYS DEPARTMENT  
HONG KONG 路政署



50 mm SCALE 1 : 1

觀景 '一' VIEW '1'

觀景 '二' VIEW '2'

圖則名稱 drawing title				職位 post	姓名 name	簽署 initial	日期 date	版權所有不得翻印 COPYRIGHT RESERVED	比例 scale	A3	圖則編號 drawing no.
工程計劃項目第 829TH 號 錦學路的改善及擴建工程 - 完成後的構思圖 PWP ITEM No. 829TH IMPROVEMENT AND EXTENSION OF KAM POK ROAD - ARTIST'S IMPRESSION AFTER COMPLETION				設計 designed	E/NT3-3	W.K. FONG	SIGNED		08.12.10	圖示	DIAGRAMMATIC
				繪圖 drawn	TO/3-3	H.S. LAM	SIGNED	08.12.10	辦事處 office <b>工程部</b> WORKS DIVISION		 HIGHWAYS DEPARTMENT HONG KONG 路政署
				核對 checked	E/NT3-3	W.K. FONG	SIGNED	08.12.10			
				批核 approved	SE/NT3	P.L. KAN	SIGNED	08.12.10			

**Objections under the Roads (Works, Use and Compensation) Ordinance  
in respect of 6829TH – Improvement and Extension of Kam Pok Road**

**Objection No. 1**

The objector owns a piece of land along Castle Peak Road (Tam Mi) where he operates his business. He has no objection to the implementation of the project but requested the provision of a run-in (from either the new road or Castle Peak Road (Tam Mi)) for gaining vehicular access to his lot as he claimed that there are two existing vehicular accesses to his lot. That said, the objector admitted that the existing vehicular access via adjacent private lots to his lot was only paved by him after gazettal of the project in September 2009 and that the other vehicular access was constructed by him without obtaining necessary approval from concerned Government departments.

2. Given the circumstances, the Administration has advised the objector that his request for the provision of a run-in for gaining vehicular access to his lot was not justified and would not be entertained. In response to our explanation, the objector maintained his objection. Hence, the objection is unresolved.

**Objection No. 2**

3. The objector represents a group of villagers of Pok Wai and his major concerns are that the new road would affect vehicular access to his land located next to the new road; the new road would cause noise nuisance to Pok Wai village; and the Administration should compensate for the loss of land within the Village Type Development zone (V-Zone) due to construction of the new road by re-zoning equivalent land in the vicinity as V-Zone.

4. The Administration has responded to the objector that a run-in would be provided on the new road in front of his lot and that noise barriers would be provided on both sides of the new road within the V-Zone to mitigate traffic noise due to the project as shown on the gazettal documents. The expansion of the V-Zone would require amendments to the Outline Zoning Plan and the approval of the Town Planning Board (TPB).

5. In response to our explanation, the objector indicated that he has no objection to the implementation of the project but maintained his objection for the reason that the Government should compensate for the loss of land within

the V-Zone due to construction of the new road. Hence, the objection is unresolved.

### **Objection No. 3**

6. The objector represents a group of villagers of Pok Wai and his major concerns are that the new road would cause noise nuisance to Pok Wai village and that the new road would require resumption of land within the V-Zone. In response, the Administration has advised the objector that noise barriers would be provided on both sides of the new road within the V-Zone to mitigate traffic noise due to the project as shown on the gazettal documents and that the issue of compensation for the loss of land within the V-Zone would require amendments to the Outline Zoning Plan and the approval of the TPB.

7. In response to the Administration's explanation, the objector maintained his objection for the reason that the Government should compensate for the loss of land within the V-Zone due to construction of the new road. Hence, the objection is unresolved.

### **Objection No. 4**

8. The objector's major concerns are that there is no imminent need for the construction of the new road; the new road would cause noise nuisance to Pok Wai village; and the new road would require resumption of land for the construction of small house within the V-Zone, affecting the construction of small houses by indigenous villagers.

9. The Administration has advised the objector that the new road would provide a new access for Tai Sang Wai and Pok Wai and also tie in with village type and comprehensive developments in the area in the long term. Noise barriers would be provided on both sides of the new road within the V-Zone to mitigate traffic noise due to the project as shown on the gazettal documents. The project would also include construction of other basic infrastructures, such as sewers and water mains, which would facilitate V-type development.

10. Subsequent to a meeting with representatives from relevant government departments, the objector confirmed that his land within the V-Zone would not be affected by the project. Notwithstanding the above, the objector maintained his objection. Hence, the objection is unresolved.

## **Objection No. 5**

11. The objector's major concerns are that the new road would require resumption of land within the V-Zone which would not be beneficial to Pok Wai; the provision of noise barriers on both sides of the new road within the V-Zone would affect vehicular access to a piece of land located next to the new road owned by him; and the project would require resumption of most part of another piece of land owned by him leaving behind only a very small parcel of land which would not be of any use for future development and he requested the Government to resume the whole of the land.

12. In response, the Administration has advised the objector that the new road would provide a new access for Tai Sang Wai and Pok Wai, and also for village type and comprehensive developments in the area in the long term. A run-in would be provided on the new road in front of his lot as shown on the gazettal documents. According to the established practice for land resumption, resumption of private land for the implementation of Government projects would be kept to a minimum as far as possible and based on the land required for the project. The remaining parcel of land owned by him would be bigger than 0.01 acre, and under the existing land resumption policy, his request for resumption of the whole lot could not be entertained.

13. In response to the Administration's explanation, the objector maintained his objection. Hence, the objection is unresolved.

## **Objection No. 6**

14. The objector is a company which is concerned about resumption of part of the land currently used by it as storage yard. However, it would consider withdrawing the objection on the condition that there would be fair compensation for the resumption of the company's land and that a run-in abutting the new road for vehicular access to the remaining land would be provided.

15. In response, the Administration has advised the objector that resumption of private land for the implementation of government projects would be kept to a minimum as far as possible and based on the land required for the project, and that there is no objection to providing a run-in abutting the new road for vehicular access to the remaining land. The objector subsequently advised that it would be prepared to withdraw the objection subject to a run-in abutting the new road for vehicular access to the remaining land being provided, and that ex-gratia compensation rates for the resumed land

being not less than the fair open market value at the time of resumption. As withdrawal of the objection is conditional, the objection is considered unresolved.

### **Objection No. 7**

16. The objectors are village representatives (VRs) of Pok Wai and are mainly concerned about the fact that the Administration has not fully addressed the earlier 11 requests put forward by both the Chairman of the San Tin Rural Committee (STRC) and the VRs of Pok Wai, in particular the request for compensation for the loss of land within the V-Zone due to construction of the new road.

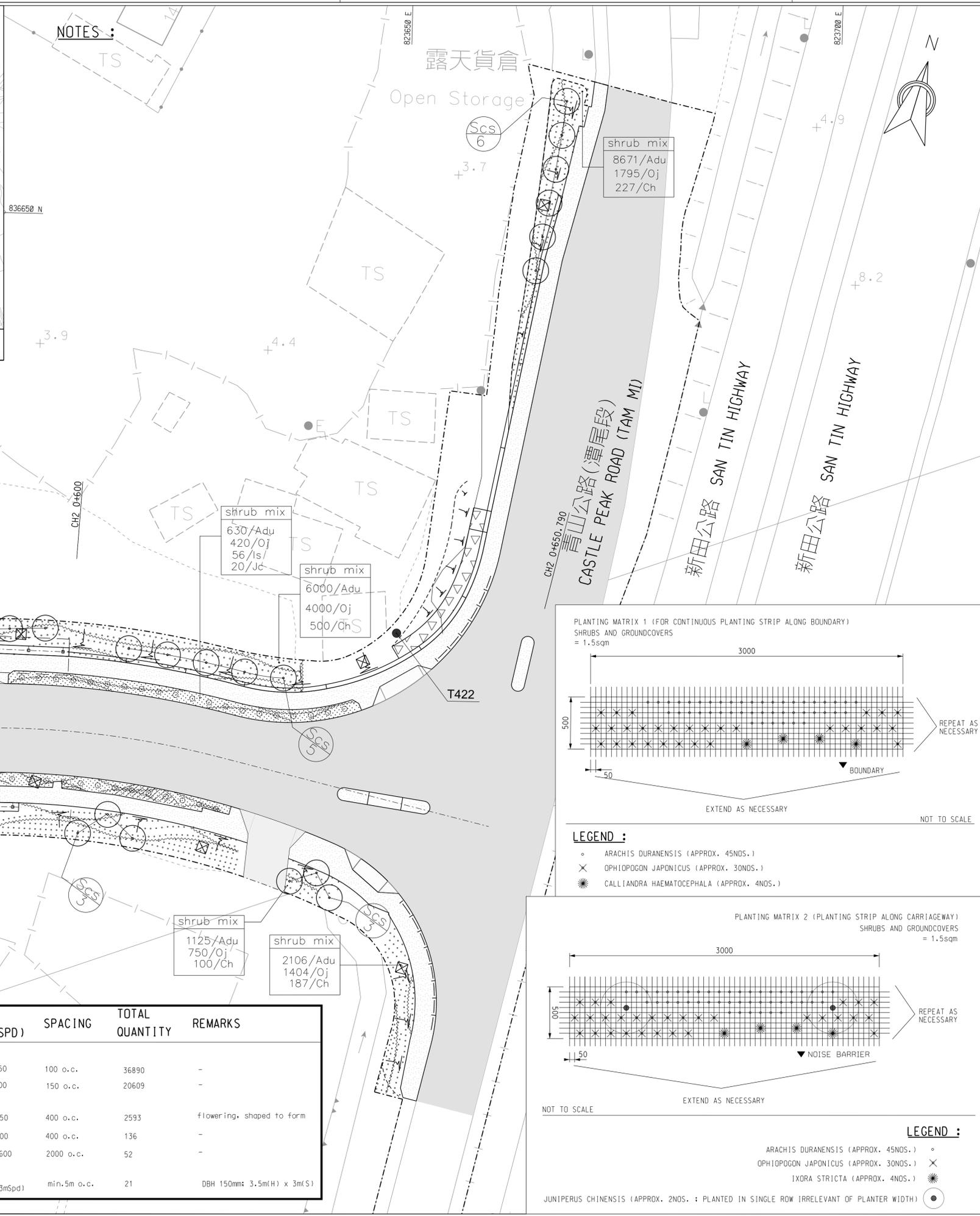
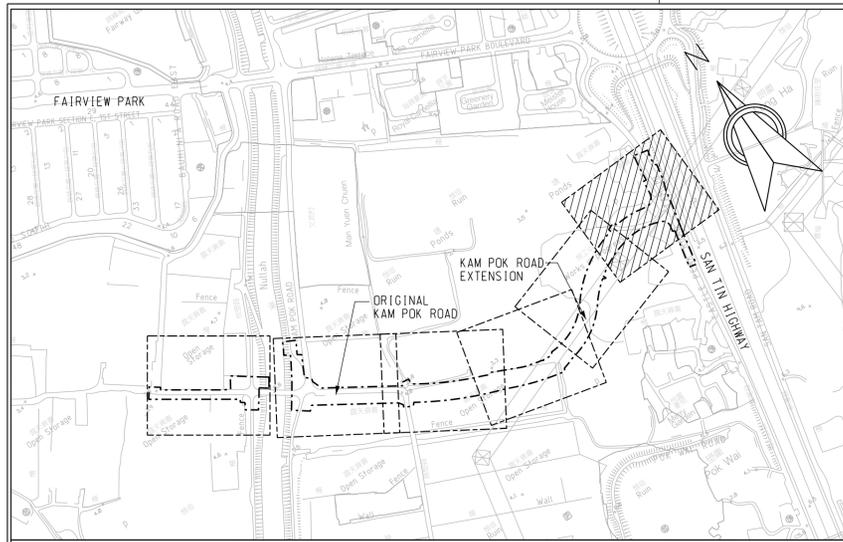
17. The Administration has responded to the objectors that both the STRC (with the objectors themselves being members of the Committee) and the Traffic and Transport Committee of the Yuen Long District Council at the meetings held on 20 July 2009 and 24 July 2009 respectively supported the implementation of the project. Since then, the Administration has followed up closely the 11 requests with some of them already included in the project and some being handled by concerned Government departments separately. The issue of compensation for the loss of land within the V-Zone would require amendments to the Outline Zoning Plan and the approval of the TPB. Indeed, the objectors indicated on a previous occasion that they agreed that the V-Zone issue be handled separately in order not to delay the project. In response to the explanation, the objectors maintained their objection. Hence, the objection is unresolved.

### **Objection No. 8**

18. The objector was mainly concerned about resumption of part of the land he has currently rented for business under a tenancy agreement. The objector advised that the land resumption would significantly affect the investments he has put in over the years. Nevertheless, he would offer to the land owner to continue to rent the remaining land for his business and that he would maintain his objection unless a run-in on the new road for gaining vehicular access to the remaining land would be provided.

19. The Administration has responded to the objector that it did not receive any objection from the concerned land owner. The Administration has also pointed out that his request for the provision of a run-in on the new road would not be accepted as the proposed run-in would be located at the road bend

and very close to Castle Peak Road (Tam Mi), which would be undesirable and unsatisfactory from the road safety point of view. If the objector considered that he was eligible for any type of ex-gratia compensation, he could make his application to the Lands Department under the “Ex-gratia Allowances Payable for Land Resumptions and Clearances” arrangements under the department. In response to the explanation, the objector maintained his objection. Hence, the objection is unresolved.



- NOTES :**
1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED.
  2. ALL LEVELS ARE IN MPD (METRE ABOVE HONG KONG PRINCIPAL DATUM).
  3. ALL DRAWINGS SHALL BE READ IN CONJUNCTION WITH THE SPECIFICATION FOR LANDSCAPE AND ALL RELEVANT DRAWINGS AND SPECIFICATIONS.
  4. ALL PLANTS TO BE TRUE TO SPECIES; PLANTS TO BE HEALTHY AND WITH THE HABIT AND SIZE OF THE PLANT SPECIFIED. PLANTS TO BE FREE FROM PESTS, DISEASE, PARASITES, DISCOLORATION AND DAMAGE AND SHALL HAVE A VIGOROUS FIBROUS ROOT SYSTEM WITH WELL DEVELOPED SHAPE FOR THE SPECIES AS SPECIFIED.
  5. ALL PLANTS AND TREES SHALL BE PLANTED ON GRADE AND OPEN-BOTTOM PLANTERS. TREE LOCATIONS SHALL BE REFERRED TO RELEVANT APPROVED TREE REMOVAL APPLICATION.
  6. SOIL LEVEL SHALL BE LOWERED BY 50MM FROM THE FINISHED LEVEL AND SLIGHTLY MOUNDED TO CENTRE.
  7. SOIL MIX TO BE BACKFILLED TO A DEPTH OF 600MM WHERE SHRUB AND GROUNDCOVER PLANTINGS SHALL BE LOCATED AND 1200MM WHERE TREES SHALL BE LOCATED.
  8. ORIGINAL SUB-SOIL SHALL BE BROKEN UP TO FACILITATE NATURAL DRAINAGE.

- LEGEND :**
- SITE BOUNDARY
  - C/W CARRIAGEWAY
  - F/P FOOTPATH
  - C/T CYCLE TRACK
  - RUN-IN
  - VERTICAL NOISE BARRIER
  - RETAINING WALL
  - PEDESTRIAN CROSSING
  - PLANTING
  - TRANSPLANTED TREES
  - COMPENSATORY TREES
  - ⊗ WATER POINT (Ø 40M INTERVAL)

Rev.	Description of Revision	Date	Ckd.
Z	AS BUILT	APR 15	SIGNED
E	GENERAL REVISION	AUG 13	SIGNED
D	GENERAL REVISION	JUL 13	SIGNED
C	GENERAL REVISION	JAN 13	SIGNED
B	GENERAL REVISION	JUN 12	SIGNED
A	GENERAL REVISION	08-02-12	SIGNED

Client  
 路政署 (工程部)  
 HIGHWAYS DEPARTMENT WORKS DIVISION

Consultants  
**MANNINGS**  
 (Asia) Consultants Limited

Scale in A1	Date
1 : 250	FEB 2011

Designed	Drawn	Checked
GK	SAN	JM

Design Team Leader	Date
SNG	FEB 2011

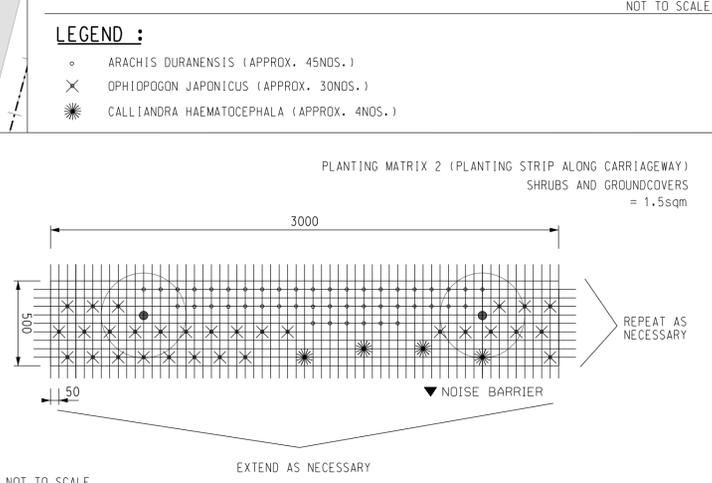
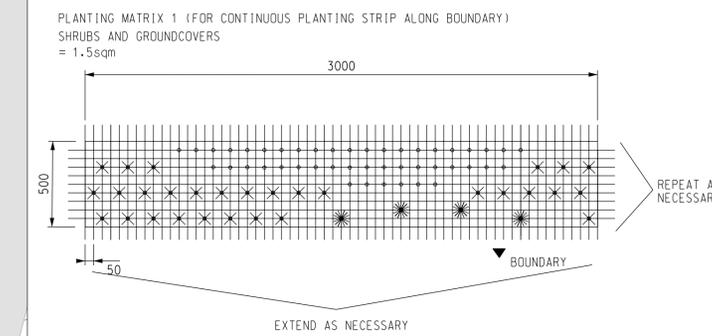
Approved	Date
KTC	FEB 2011

Project  
**Contract No. HY/2010/09**  
**Improvement and Extension of Kam Pok Road**

Title  
**LANDSCAPE LAYOUT PLAN**

(SHEET 6 OF 6)  
 Drawing No. **D1199/KP/LW/016** Stage Rev. **Z**

KEY	BOTANICAL NAME	CHINESE NAME	SIZE (HT x SPD)	SPACING	TOTAL QUANTITY	REMARKS
<b>GROUNDCOVERS:</b>						
Adu	Arachis duranensis	蔓花生	100 x 150	100 o.c.	36890	-
Oj	Ophiopogon japonicus	山麥冬	200 x 200	150 o.c.	20609	-
<b>SHRUBS:</b>						
Ch	Calliandra haematocephala	紅絨球	600 x 450	400 o.c.	2593	flowering, shaped to form
Is	Ixora stricta	細葉紅花 龍船花	500 x 400	400 o.c.	136	-
Jc	Juniperus chinensis	洋白柏	1500 x 600	2000 o.c.	52	-
<b>COMPENSATORY TREES:</b>						
Scs	Schima superba	木荷	HS (3.5mHt. x 3mSpd)	min. 5m o.c.	21	DBH 150mm; 3.5m(H) x 3m(S)



- LEGEND :**
- ARACHIS DURANENSIS (APPROX. 45NOS.)
  - × OPHIOPOGON JAPONICUS (APPROX. 30NOS.)
  - CALLIANDRA HAEMATOCEPHALA (APPROX. 4NOS.)
  - JUNIPERUS CHINENSIS (APPROX. 2NOS. ; PLANTED IN SINGLE ROW IRRELEVANT OF PLANTER WIDTH)

## Appendix 4

### Revised Environmental Assessment

# PROPOSED SOCIAL WELFARE FACILITIES (RESIDENTIAL CARE HOME FOR THE ELDERLY (RCHE)) IN “VILLAGE TYPE DEVELOPMENT” ZONE, VARIOUS LOTS IN D.D. 104 AND ADJOINING GOVERNMENT LAND, NAM SANG WAI, YUEN LONG

## ENVIRONMENTAL ASSESSMENT

17 Nov 2025

Report No.: RT25285-EA-01D

**Prepared By:**



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<b>Project:</b>	PROPOSED SOCIAL WELFARE FACILITIES (RESIDENTIAL CARE HOME FOR THE ELDERLY (RCHE)) IN "VILLAGE TYPE DEVELOPMENT" ZONE, VARIOUS LOTS IN D.D. 104 AND ADJOINING GOVERNMENT LAND, NAM SANG WAI, YUEN LONG ENVIRONMENTAL ASSESSMENT				
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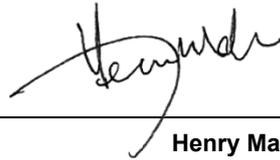
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## 1. INTRODUCTION

### 1.1. BACKGROUND

- 1.1.1. The Project Proponent proposes to develop a 3-storey Residential Care Home for the Elderly (RCHE in various lots in D.D. 104, Nam Sang Wai (hereafter called “the Proposed Development”).
- 1.1.2. BeeXergy Consulting Limited was commissioned by DeSPACE (International) Limited (the Project Planner) to undertake an Environmental Assessment (EA) in support of its planning application under Section 16 of the Town Planning Ordinance (TPO) for the Proposed Development.

### 1.2. PROJECT LOCATION

- 1.2.1. The Project Site is approximately 1845m<sup>2</sup>, currently bounded by abandoned fishponds to the north and west, Kam Pok Road East to the south. The Project Site is currently zoned as “Village Type Development” (“V”) under the Approved Nam Sang Wai Outline Zoning Plan No. S/YL-NSW/10. **Figure 1.1** shows the location of Project Site and its environs.

### 1.3. PROJECT DESCRIPTION

- 1.3.1. The Proposed Development will comprise one 3-storey building (excluding carpark) comprising RCHE dormitory and communal area. The key development parameters are summarised in **Table 1.1** and the Master Layout Plan is enclosed in **Appendix 1.1**.

**Table 1.1 Key Development Parameters of the Proposed Development**

<b>No. of Storeys</b>	3 storeys
<b>Total Gross Floor Area (GFA)</b>	Approx. 4,243.5m <sup>2</sup>
<b>Building Height</b>	+20.00 mPD
<b>Proposed Major Floor Use</b>	LG/F: Carpark G/F to 2/F: Dormitory for RCHE(s), Communal Area, Carpark Entrance and Lay-by
<b>Tentative Population Intake Year</b>	2030
<b>Total No. of Beds</b>	208

## **1.4. SCOPE OF THE ENVIRONMENTAL ASSESSMENT**

1.4.1. This EA Report covers the following key issues arising from the construction and operation of the Proposed Scheme:

- Air Quality Impact;
- Noise Impact;
- Water Quality Impact;
- Waste Management; and
- Land Contamination;

## **1.5. STRUCTURE OF THE REPORT**

1.5.1. This EA Report includes the following sections:

- Section 1 introduces the project background and outlines the scope of this EA;
- Section 2 evaluates the air quality impact;
- Section 3 presents the noise impact assessment;
- Section 4 evaluates the water quality impact;
- Section 5 evaluates the waste management implications;
- Section 6 presents the land contamination review; and
- Section 7 summarizes the findings of this EA study.

## 2. AIR QUALITY IMPACT

### 2.1. INTRODUCTION

2.1.1. This section identifies the potential air quality impact associated with the construction and operation of the Proposed Scheme. It also recommends practical pollution control and mitigation measures, where necessary.

### 2.2. RELEVANT LEGISLATION, STANDARDS AND GUIDELINES

2.2.1. The relevant legislation, standards and guidelines applicable to the present review of air quality impact include:

- Air Pollution Control Ordinance (APCO) (Cap. 311);
- Air Pollution Control (Smoke) Regulations (Cap. 311C);
- Air Pollution Control (Fuel Restriction) Regulations (Cap. 311I);
- Air Pollution Control (Construction Dust) Regulation (Cap. 311R);
- Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulation (Cap. 311Z);
- Hong Kong Planning Standards and Guidelines (HKPSG); and
- EPD's Guidelines on "Control of Oily Fume and Cooking Odour from Restaurants and Food Business".

#### Air Quality Objectives

2.2.2. The APCO provides a statutory framework for establishing the Air Quality Objectives (AQOs) and stipulating the anti-pollution requirements for air pollution sources. The AQOs stipulate concentration for a range of pollutants, which are summarized below in **Table 2.1**.

**Table 2.1 Hong Kong Air Quality Objectives**

Pollutant	Averaging Time	Concentration Limit <sup>[i]</sup> ( $\mu\text{g}/\text{m}^3$ )	Number of Exceedances Allowed
Sulphur Dioxide ( $\text{SO}_2$ )	10-minute	500	3
	24-hour	40	3
Respirable Suspended Particulates ( $\text{PM}_{10}$ ) <sup>[ii]</sup>	24-hour	75	9
	Annual	30	N/A
Fine Suspended Particulates ( $\text{PM}_{2.5}$ ) <sup>[iii]</sup>	24-hour	37.5	18
	Annual	15	N/A

Pollutant	Averaging Time	Concentration Limit <sup>[i]</sup> ( $\mu\text{g}/\text{m}^3$ )	Number of Exceedances Allowed
Nitrogen Dioxide (NO <sub>2</sub> )	1-hour	200	18
	24-hour	120	9
	Annual	40	N/A
Ozone (O <sub>3</sub> )	8-hour	160	9
	Peak season	100	N/A
Carbon Monoxide (CO)	1-hour	30,000	0
	8-hour	10,000	0
	24-hour	4,000	0
Lead	Annual	0.5	N/A
Notes: [i] All measurements of the concentration of gaseous air pollutants, i.e., SO <sub>2</sub> , NO <sub>2</sub> , O <sub>3</sub> and CO, are to be adjusted to a reference temperature of 293 K and a reference pressure of 101.325 kPa. [ii] PM <sub>10</sub> means suspended particles in air with a nominal aerodynamic diameter of 10 $\mu\text{m}$ or less. [iii] PM <sub>2.5</sub> means suspended particles in air with a nominal aerodynamic diameter of 2.5 $\mu\text{m}$ or less.			

### Hong Kong Planning Standards and Guidelines

2.2.3. Environmental requirements to be considered in land use planning are outlined in Chapter 9 of the HKPSG. The standards and guidelines provide recommendation on suitable locations for developments and sensitive users, provision of environmental facilities and design, layout, phasing and operational controls to minimize adverse environmental impacts. It also lists out environmental factors influencing the land use planning and recommends buffer distances for land uses.

2.2.4. Buffer distances on usage of open space site for recreational uses are also recommended. Evaluation of potential air quality impact on the Proposed Scheme due to the vehicular emissions and industrial emissions shall make reference to the guidelines as stipulated in the HKPSG. The buffer distance requirements in HKPSG are extracted below in **Table 2.2**.

**Table 2.2 HKPSG Recommended Buffer Distance**

Pollution Source	Parameter	Buffer Distance	Permitted Uses
Roads and Highways	<i>Type of Road</i>	/	
	Trunk Road and Primary Distributor	> 20m	Active and Passive Recreational Uses
		3 – 20m	Passive Recreational Uses
		< 3m	Amenity Areas
District Distributor	> 10m	Active and Passive Recreational Uses	
Roads and Highways	District Distributor	< 10m	Passive Recreational Uses
	Local Distributor	> 5m	Active and Passive Recreational Uses
		< 5m	Passive Recreational Uses
Under Flyover	N/A	Passive Recreational Uses	
Industrial Areas	<i>Difference in Height between Industrial Chimney Exit and the Site</i>	/	
	< 20m	> 200m	Active and Passive Recreational Uses
		5 – 200m	Passive Recreational Uses
	20 – 30m (*)	> 100m	Active and Passive Recreational Uses
		5 – 100m	Passive Recreational Uses
	30 – 40m	> 50m	Active and Passive Recreational Uses
		5 – 50m	Passive Recreational Uses
> 40m	> 10m	Active and Passive Recreational Uses	
Remarks: <ol style="list-style-type: none"> <li>In situations where the height of chimneys is not known, use the set of guidelines marked with an asterisk for preliminary planning purpose and refine as and when more information is available.</li> <li>The buffer distance is the horizontal, shortest distance from the boundary of the industrial lot, the position of existing chimneys or the edge of road kerb, to the boundary of open space sites.</li> <li>The guidelines are generally applicable to major industrial areas but not individual large industrial establishments which are likely to be significant air pollution sources. Consult EPD when planning open space sites close to such establishments.</li> <li>Amenity areas are permitted in any situation.</li> </ol>			

## 2.3. AIR SENSITIVE RECEIVERS

2.3.1. Representative air sensitive receivers (ASRs) within 500m assessment area have been identified based on topographic maps supplemented by site surveys, outline zoning plans and other published plans in the vicinity of the Project Site. Within the 500m assessment area, ASRs that are closest to the Project Site are anticipated to be the most affected and therefore considered the most representative ASRs for the worst-case scenario air quality impact assessment, whilst other ASRs located further away from these first-tier representative ASRs are expected to be less impacted. Details of the identified representative ASRs are summarized in **Table 2.3** below and their locations are shown in **Figure 2.1**.

**Table 2.3 Representative Air Sensitive Receivers**

ASR ID	Description	Use	Existing/Planned	Approximate Shortest Distance from Project Site, m
A01	Merry Garden	Residential	Existing	90
A02	Meister House	Residential	Existing	256
A03	Man Yuen Chun	Residential	Existing	265
A04	Planned Residential Development	Residential	Planned	27
A05	JAC Auto Repair Shop	Workshop	Existing	249
A06	FUSO Fairview Park Service Center	Workshop	Existing	239
A07	Hung Kee Metal Recycling Int'l Ltd.	Workshop	Existing	154
A08	Dorfield Ltd.	Workshop	Existing	206
A09	Prospera Villa	Residential	Existing	45

## 2.4. CONSTRUCTION PHASE IMPACT REVIEW

### Impact Identification and Evaluation

2.4.1. Major construction activities include construction works for site set up, foundation, excavation, superstructure and fitting out, etc of the new building. Potential fugitive dust emission and gaseous emissions from construction machinery arising from these construction activities is anticipated.

2.4.2. Based on the latest development scheme and information provided by Project Team, deep foundation excavation and large-scale site formation will not be required. From the information available, the construction works will tentatively be commenced no later than 2028 with total construction period of 15 months, the tentative construction period

of each construction stage are presented in **Table 2.4**. The area of excavation is approximately 1845m<sup>2</sup>, it is expected that only 1 dump truck per day is required. The estimated amount of excavated materials to be handled and number of truck trips per day are summarized in **Table 2.4** below.

**Table 2.4 Estimated Volume of Excavated Materials and Number of Truck Trips Per Day**

Construction Stage	Estimated Total Volume of Excavated / Backfill Material during the Construction Stage	Estimated Number of Truck Trips per Day
Foundation Stage (~5 Months)	832m <sup>3</sup> C&D Material (Inert C&D: 830m <sup>3</sup> , Non-inert C&D: 1.5m <sup>3</sup> )	<1 Trip per Day
Superstructure Stage (~10 Months)	424m <sup>3</sup> C&D Material (Inert C&D: 339m <sup>3</sup> , Non-inert C&D: 85m <sup>3</sup> )	<1 Trip per Day
Remarks:		
a) Assumed that there will be 22 working days per month.		
b) Assumed that the average dump truck capacity will be 7.5m <sup>3</sup> per trip.		

2.4.3. In addition, there would be on average 3 nos. of Powered Mechanical Equipment (PME) operated simultaneously within the Project Site. Gaseous emissions from PMEs are expected to be limited. Provided that the Air Pollution Control (Fuel Restriction) Regulation, Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulation and Motor Vehicle Idling (Fixed Penalty) Ordinance shall be followed, no adverse air quality impacts associated with gaseous emission from construction is anticipated.

2.4.4. With the implementation of appropriate air quality control measures and the requirements as listed in the Air Pollution Control (Construction Dust) Regulation of APCO to control the air pollutant emissions, adverse air quality impact is not anticipated during construction.

#### **Recommended Mitigation Measures**

2.4.5. To ensure that dust and gaseous emissions are controlled during the construction phase of the Project, relevant air quality control requirements stipulated in Air Pollution Control (Construction Dust) Regulation, Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulation and Air Pollution Control (Fuel Restriction) Regulations should be implemented. The proposed control measures are listed below.

- The designated haul road should be hard paved to minimize fugitive dust emission;
- During the site formation works, the active works areas should be water sprayed with water browser or sprayed manually hourly during construction

period. The Contractor should ensure that the amount of water spraying is just enough to dampen the exposed surfaces without over-watering which could result in surface water runoff;

- Any excavated dusty materials or stockpile of dusty materials should be covered entirely by impervious sheeting or sprayed with water so as to maintain the entire surface wet, and recovered or backfilled or reinstated as soon as possible;
- Dusty materials remaining after a stockpile is removed should be wetted with water;
- The area where vehicle washing takes place and the section of the road between the washing facilities and the exit point should be paved with concrete, bituminous materials or hardcore or similar;
- The Contractor(s) shall only transport adequate amount of fill materials to the Project Site to minimize stockpiling of fill materials on-site, thus reducing fugitive dust emission due to wind erosion;
- Should temporary stockpiling of dusty materials be required, it shall be either covered entirely by impervious sheeting, placed in an area sheltered on the top and the 3 sides; or sprayed with water so as to maintain the entire surface wet;
- All dusty materials shall be sprayed with water prior to any loading, unloading or transfer operation so as to maintain the dusty material wet;
- Vehicle speed to be limited to 10 kph except on completed access roads;
- The portion of road leading only to a construction site that is within 30 m of a designated vehicle entrance or exit should be kept clear of dusty materials;
- Every vehicle should be washed to remove any dusty materials from its body and wheels immediately before leaving the construction site;
- The load of dusty materials carried by vehicle leaving the construction site should be covered entirely by clean impervious sheeting to ensure that the dusty materials do not leak from the vehicle;
- The working area of excavation should be sprayed with water immediately before, during and immediately after (as necessary) the operations so as to maintain the entire surface wet;
- Restricting height from which materials are to be dropped as far as practicable to minimize the fugitive dust arising from loading/unloading activities;
- Every stock of more than 20 bags of cement or dry pulverized fuel ash shall be covered entirely by impervious sheeting or placed in an area sheltered on the

top and the 3 sides;

- Cement, pulverized fuel ash or any other dusty materials collected by fabric filters or other air pollution control system or equipment shall be disposed of in totally enclosed containers;
- Electric power supply shall be provided for on-site machinery as far as practicable;
- Regular maintenance of construction equipment deployed on-site should be conducted to minimize gaseous and prevent black smoke emission;
- Hoarding of not less than 2.4m high from ground level shall be provided along the site boundary except for a site entrance or exit to minimise dust nuisance to the nearby sensitive receivers. For locations with ASRs in immediate proximity to the Project Site, higher hoarding shall be erected; and
- Regular site audit shall be conducted to ensure all the mitigation measures are properly implemented.
- Electrified Non-road Mobile Machinery shall be provided as far as practicable.
- Non-road Mobile Machinery exempted from regulatory control shall be avoided as far as practicable.

2.4.6. With the implementation of above mitigation measures, no adverse construction phase air quality impact is anticipated.

## 2.5. OPERATION PHASE IMPACT REVIEW

### Impact Identification and Evaluation

#### Vehicular Emission

2.5.1. Vehicular emission from existing open roads is the potential air pollution source to the Proposed Scheme during operation phase.

2.5.2. The Application Site is bounded by Kam Pok Road East and is subject to the air quality impact associated with the vehicular emission from existing open roads. In order to comply with the buffer distance requirements as stipulated in the HKPSG, the air-sensitive uses at the Proposed Development have been positioned away from Kam Pok Road East. The required buffer distances from the surrounding road were summarized in **Table 2.5** and illustrated in **Figure 2.2**. The TD's endorsement on the road type of Kam Pok Road East is provided in **Appendix 2.1**. No air sensitive uses, including openable windows, fresh air intake and recreational uses in the open space, would be located within the buffer zones.

**Table 2.5 Relevant Buffer Distance Requirements**

Road Name	Road Type	Recommended Buffer Distance in HKPSG	Buffer Distance allowed for the Proposed Scheme
Kam Pok Road East	Rural Road	-	>5m
Note: As advised by the Project's Traffic Consultant and clarified by the Transport Department (TD), Kam Pok Road East (from Castle Peak Road - Tam Mi to Kam Pok Road) is classified as a rural road. There is no buffer distance requirement for rural road specified in HKPSG, a 5m buffer distance is still allowed to minimize air quality impact on the Proposed Development.			

- 2.5.3. As the required buffer distances between ASRs and the surrounding roads could be achieved, no adverse air quality impact associated with vehicular emission on the Proposed Scheme is anticipated.

#### Emission from carpark within the Proposed Development

- 2.5.4. The car parks within the Proposed Development will be designed and operated in accordance with ProPECC PN 2/96 Control of Air Pollution in Car Parks. The car parks are mainly used for private car parking and the starting emissions generated by the vehicles are expected to be limited. Nonetheless, the idling period of vehicles will be governed by Cap. 611 Motor Vehicle Idling (Fixed Penalty) Ordinance which excessive emissions from idling vehicles within the Application Site is not expected. Given the above, no adverse air quality impact from car park operations is anticipated.

#### Industrial Emission from nearby chimney

- 2.5.5. A review of chimney locations based on EPD's register and license for specified processes (SP) available on Hong Kong Environmental Database (HKED) was carried out. No chimneys were identified within the 200m assessment area. Additional chimney surveys were also conducted in July 2025 to verify the findings. As no chimneys were identified within the assessment area and no active and heavy industrial operation in the vicinity is observed, no adverse air quality impact on the proposed development related to chimney emissions is anticipated.

#### Odour Emission

- 2.5.6. Based on the desktop review and site surveys conducted in July 2025, no particular air and odour emission sources were identified within 200m radius from the proposed development. During the site visit, no particular odour source was detected, and no odour source from the nearby nullahs, including Ngau Tam Mei Drainage Channel and its subsidiary nullahs, and nearby ponds was identified.

### **Recommended Mitigation Measures**

- 2.5.7. The setback distance between the building façades and the fresh air intakes/opened windows is recommended to be at least 5m away from Kam Pok Road East to satisfy the recommended buffer distance from the carriageway as per Chapter 9 of HKPSG

## **2.6. CONCLUSION**

- 2.6.1. Fugitive dust and gaseous emission is the major source of air pollution during the construction phase of the Project. Through proper implementation of air quality control measures as required under the Air Pollution Control (Construction Dust) Regulation, Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulation and Air Pollution Control (Fuel Restriction) Regulations, construction dust and gaseous emissions can be controlled. Therefore, adverse air quality impact during construction phase is not anticipated.
- 2.6.2. The potential operation phase air quality impact due to vehicular emission from the surrounding roads, industrial emission and odour emission have been evaluated. No industrial and odour sources is identified during site survey and the HKPSG buffer distance requirements could be complied, therefore, no adverse operation phase air quality impact on the Proposed Scheme is expected.

### **3. NOISE IMPACT**

#### **3.1. INTRODUCTION**

3.1.1. The Project will have potential noise impacts during the construction and operation phases. During the construction phase, potential construction airborne noise impact may be generated due to the use of powered mechanical equipment (PME) for various construction works including site formation, foundation and superstructure. During the operation phase of the Project, noise due to building equipment will also have potential noise impacts to the NSRs nearby.

#### **3.2. RELEVANT LEGISLATION, STANDARDS AND GUIDELINES**

3.2.1. The relevant legislation, standards and guidelines applicable to the present noise impact assessment include:

- Noise Control Ordinance (NCO) (Cap. 400);
- Technical Memorandum for the Assessment of Noise from Places Other Than Domestic Premises, Public Places or Construction Sites (IND-TM);
- Technical Memorandum on Noise from Construction Work Other Than Percussive Piling (GW-TM);
- Technical Memorandum on Noise from Construction Work in Designated Areas (DA-TM);
- Technical Memorandum on Noise from Percussive Piling (PP-TM);
- Hong Kong Planning Standards and Guidelines (HKPSG);
- Professional Persons Environmental Consultative Committee (ProPECC) Practice Note PN 1/24 "Minimizing Noise from Construction Activities"; and
- Good Practices on the Control of Noise from Electrical & Mechanical Systems

### 3.3. CONSTRUCTION PHASE IMPACT REVIEW

#### Noise Standards for Construction Works during Non-restricted Hours

3.3.1. ProPECC PN1/24 offers guidance on the existing control on noise from construction activities under the Noise Control Ordinance (NCO) and Environmental Impact Assessment Ordinance (EIAO). It also outlines the requirements and recommendations on the practices for minimizing construction noise. The noise generated by construction activities for the project during non-restricted hours (7 a.m. to 7 p.m. on any day that is not a Sunday or general holiday) should be minimized to the greatest extent practicable. Additionally, the construction noise at the facade of the respective noise-sensitive receivers should not exceed the following noise levels, as summarized in **Table 3.1** below.

**Table 3.1 Noise Standards for Construction Works during Non-restricted Hours**

Uses	$L_{eq}$ (30 mins), dB(A)
All domestic premises Temporary housing accommodation Hostels Convalescences homes Homes for the aged	75
Places of public worship Courts of law Hospitals and medical clinics	70
Educational institutions (including kindergartens and nurseries)	70 (65 during examination)
Note: The above standards apply to uses which rely on opened windows for ventilation and are assessed at 1m from the external façade.	

#### Noise Standards for Construction Works during Restricted Hours

3.3.2. Noise impacts arising from construction activities (excluding percussive piling) conducted during the restricted hours (1900 to 0700 hours on any day and anytime on Sunday and general holiday) are governed by the NCO.

3.3.3. All the proposed construction works are expected to be carried out during non-restricted hours. In case of any construction activities during restricted hours, it is the Contractor's responsibility to ensure compliance with the NCO and the relevant technical memoranda. The Contractor will be required to submit a construction noise permit (CNP) application to the Noise Control Authority and abide by any conditions stated in the CNP, should one be issued. It should be noted that description made in this report does not guarantee that a CNP will be granted for the project construction.

The Noise Control Authority would take into account the contemporary condition of adjoining land uses and other considerations when processing the CNP application based on the NCO and relevant technical memoranda issued under the NCO. The findings in this report shall not bind the Noise Control Authority in making the decision.

### **Noise Standards for Percussive Piling**

- 3.3.4. Noise impact arising from percussive piling at any time is also governed by the NCO. The noise criteria and the assessment procedures for issuing a CNP for percussive piling are specified in the PP-TM. Separate application to EPD for a CNP is required.
- 3.3.5. Should percussive piling be required, the requirements in the PP-TM shall be followed.

### **Impact Identification and Evaluation**

- 3.3.6. The potential source of noise impact during the construction phase would be the use of PME for various construction activities. The key construction works would include:
- Site clearance, including demolition of existing structures and tree removal;
  - Site formation;
  - Foundation; and
  - Construction of superstructure.
- 3.3.7. No construction works will be carried out during restricted hours. Should restricted hours works or percussive piling work be required, the Contractor shall apply for a CNP and ensure full compliance with the NCO.

### **Recommended Mitigation Measures**

- 3.3.8. Standard construction noise control measures such as adoption of quieter construction method, use of quality PME (QPME) with lower sound power level (SWL), use of movable noise barriers and noise enclosures to screen noise from PME, and implementation of good site practices to limit noise emissions at source are recommended.
- 3.3.9. Good site practices and noise management can further minimize the potential construction noise impact. The following good site practices are recommended for implementation during construction phase:
- Contractor shall devise and execute working methods that will minimize the noise impact on the surrounding environment; and shall provide experienced personnel with suitable training to ensure these methods are properly implemented;
  - Noisy activities should be scheduled to minimize exposure of nearby NSRs to high levels of construction noise. For example, noisy activities can be scheduled for midday or at times coinciding with periods of high background

noise (such as during peak traffic hours);

- The Contractor should arrange construction activities with care so that concurrent construction activities are avoided as much as possible;
- Only well-maintained plant should be operated on-site and plant will be serviced regularly during the construction phase;
- Machines and plant that may be in intermittent use should be shut down between work periods or throttled down to a minimum;
- Silencers or mufflers on construction equipment should be utilized and properly maintained during the construction phase;
- Noisy equipment such as emergency generators shall always be sited as far away as possible from NSRs;
- Mobile plants should be sited as far away from NSRs as possible;
- Plant known to emit noise strongly in one direction should be orientated so that the noise is directed away from the nearby NSRs; and
- Material stockpiles and other structures should be effectively utilized in screening noise from on-site construction activities.

### **3.4. OPERATION PHASE**

#### **Noise Standards for Fixed Noise Impact Assessment**

- 3.4.1. IND-TM stipulates the appropriate Acceptable Noise Level (ANL) for fixed noise sources. The ANL is dependent on the area sensitivity rating of a noise sensitive receivers (NSR), as defined in Table 1 of the IND-TM (reproduced in **Table 3.2**). The area sensitivity rating of a NSR is determined by the type of area where the NSR is located and the presence of any influencing factors (IFs) such as major roads and industrial areas.

**Table 3.2 Area Sensitivity Ratings**

Type of Area Containing NSR	Degree to which NSR is affected by IF		
	Not Affected	Indirectly Affected	Directly Affected
Rural area, including country parks or village type developments	A	B	B
Low density residential area consisting of low-rise or isolated high-rise developments	A	B	C
Urban area	B	C	C
Area other than those above	B	B	C

- 3.4.2. The HKPSG also states that in order to plan for a better environment, all planned fixed noise sources should be located and designed that when assessed in accordance with the IND-TM, the level of the intruding noise at the façade of the nearest existing sensitive use should be at least 5 dB(A) below the appropriate ANL shown in Table 2 of IND-TM or, in the case of the background being 5 dB(A) lower than the ANL, should not be higher than the background. The ANLs stipulated in the IND-TM are provided in **Table 3.3**.

**Table 3.3 Acceptable Noise Levels**

Time Period	Area Sensitivity Rating		
	A	B	C
Day (0700 to 1900 hours)	60	65	70
Evening (1900 to 2300 hours)			
Night (2300 to 0700 hours)	50	55	60

- 3.4.3. The Project Site is located in an area contains mainly residential and village type developments, with some open storage uses in the vicinity. In view of this, the type of area is classified as “village type developments”. According to the Annual Traffic Census 2023 published by the Transport Department, San Tin Highway is classified as Primary Distributors with an annual average daily traffic (AADT) of 88,760 in excess of 30,000. Hence, San Tin Highway is considered as major roads under the IND-TM and thereby an influencing factor. As the planned NSRs within the Proposed Development will be located from approximately 170m from San Tin Highway with vegetation and plants in between blocking direct line of sight, they will not be directly affected by major roads. As such, Area Sensitivity Rating of “B” has been assigned for the NSR.
- 3.4.4. In any event, the ASR assumed in this report is for indicative assessment only. It should be noted that the noise emanating from any place other than domestic premises, a public place or a construction site is controlled under Section 13 of the Noise Control

Ordinance. At the time of investigation, the Noise Control Authority shall determine the noise impact from concerned sources on the basis of prevailing legislation and practices being in force and taking account of contemporary conditions/situations of adjoining land uses. Nothing in this report shall bind the Noise Control Authority in the context of law enforcement against all the sources being assessed.

### Noise Standards for Road Traffic Noise Impact Assessment

- 3.4.5. Table 4.1 of Chapter 9 of the HKPSG provides the assessment criteria for road traffic noise impact at noise sensitive uses which rely on opened windows for ventilation. **Table 3.4** summarizes the adopted road traffic noise criteria for noise sensitive uses with openable windows at the Proposed Scheme.

**Table 3.4 Road Traffic Noise Criteria for Noise Sensitive Uses**

Location	Use	L <sub>10</sub> (1 hour), dB(A)
G/F – 2/F	RCHE Dormitory	70
G/F – 1/F	Multi-Purpose Area <sup>[2]</sup>	70
G/F	Rehab Zone	70
1/F	Dining Area	70
1/F	End-of-Life Area <sup>[3]</sup>	70
1/F	Isolation Room <sup>[3]</sup>	70
1/F	Sick Bay <sup>[3]</sup>	70

Notes:

[1] The above standards apply to noise sensitive uses which rely on opened windows for ventilation and should be viewed as the maximum permissible noise levels assessed at 1m from the external façade.

[2] The multi-purpose area is mainly dedicated for providing space for daily exercise and holding events during different festival and functions for the occupants. No diagnostic, public worship and educational activities is anticipated in the area.

[3] As advised by the Project Team, the Sick Bay, Isolation Room and End-of-Life rooms are designated as an isolation room for infection control purposes. No medical operation and/or diagnostic activities will be carried out in the concerned room. Therefore, the noise planning standard of 70 dB(A) for domestic uses as stipulated in Table 4.1 of Chapter 9 of the HKPSG is adopted.

### Noise sensitive receivers

- 3.4.6. Existing NSRs and planned/committed noise sensitive uses identified on the relevant Outline Zoning Plans, Development Permission Area Plans, Outline Development Plans, Layout Plans and other relevant published land use plans, including plans and drawings published by the Lands Department and any land use and development applications approved by the Town Planning Board have been identified. The first layer of representative NSRs within the 300m assessment area are listed in **Table 3.5** below

and their locations are illustrated in **Figure 3.1**.

**Table 3.5 Representative Noise Sensitive Receivers**

NSR ID	Description	Nature of Use	Existing/Planned	Approximate Shortest Distance from Project Site, m
N01	Merry Garden	Residential	Existing	90
N02	Meister House	Residential	Existing	256
N03	Man Yuen Chun	Residential	Existing	265
N04	Planned Residential Development	Residential	Planned	27
<b>N05</b>	<b>Prospera Villa</b>	<b>Residential</b>	<b>Existing</b>	<b>45</b>

### Road Traffic Noise Impact on the Proposed Scheme

#### Impact Identification

3.4.7. The Project Site is bounded by Kam Pok Road East to the south, Castle Peak Road – Tam Mi and San Tin Highway to the east. There are parts of the existing noise barriers at the south boundary of the site adjoining Kam Pok Road East are proposed to be demolished, details of modification plan is provided in **Appendix 3.5**. The key noise impact during operation phase would be road traffic noise from the abovementioned roads and other local roads.

#### Noise Sensitive Uses

3.4.8. Noise assessment points have been provided for all noise sensitive uses with openable windows at the Proposed Development. The respective criteria for all types of noise sensitive uses with openable windows have been listed in **Table 3.4**. The locations of all NSRs for road traffic noise impact assessment are shown in **Figures 3.2a to 3.2c**.

#### Assessment Methodology

3.4.9. The road traffic noise impact from the existing and planned road network has been assessed within 300m assessment area on the future NSRs within the Proposed Development. The road traffic noise model adopts the methodology outlined in the Calculation of Road Traffic Noise (CRTN) developed by the UK Department of Transport. The road traffic noise would be presented in terms of noise levels exceeded for 10% of the one-hour period for the hour having the peak traffic flow  $L_{10(1hour)}$  under various traffic forecast scenarios. Representative NAPs, key building structures with noise screening effects, topographical contours and road segments with traffic flow data have been inputted into the model in predicting the potential traffic noise impacts.

3.4.10. Traffic flow of the existing and planned roads within 300m assessment area have been

forecasted by the traffic consultant of the Project. As stated in CRTN, the traffic flow used for assessment shall be the maximum traffic projection within 15 years upon occupancy of the development. The assessment has been undertaken based on the projected AM peak hourly traffic flows in Year 2045, which corresponds to the maximum projected traffic conditions within 15 years upon occupancy of the Proposed Development, i.e. Year 2030. The traffic forecast data is enclosed in **Appendix 3.1**. The traffic forecasting methodology for producing the adopted traffic data has been submitted to the Transport Department (TD) for endorsement.

Predicted Road Traffic Noise Impact on the Proposed Development under Base Case Scenario

3.4.11. Predicted peak hourly road traffic noise levels at all NSRs within the Proposed Development are summarized in **Table 3.6** below. Detailed breakdown of the road traffic noise impact assessment results under base case scenario are presented in **Appendix 3.2**.

**Table 3.6 Summary of Predicted Road Traffic Noise Levels (Base Case Scenario)**

Floor	Facility / Room	Noise Criteria, dB(A)	Predicted Maximum L <sub>10</sub> (1 hour), dB(A)
G/F	RCHE Dormitory	70	66
G/F	Multi-Purpose Area	70	66
G/F	Rehab Zone	70	68
1/F	RCHE Dormitory	70	67
1/F	Multi-Purpose Area	70	73
1/F	Communal Area	70	75
1/F	Dining Area	70	75
2/F	RCHE Dormitory	70	77
2/F	Communal Area	70	77

3.4.12. In view of the predicted traffic noise level exceeded noise standard, mitigation measures are required to ensure the noise level would be comply with relevant noise standard.

3.4.13. With reference to "Practice Note on Application of Innovative Noise Mitigation Designs in Planning Private Residential Developments against Road Traffic Noise Impact", the design of AW(BT) and corresponding noise reduction is shown in **Appendix 3.3**. The locations of the proposed acoustic window (baffle type) are shown in **Figure 3.3**.

3.4.14. The proposed reference cases can provide noise reduction from 6dB(A) to 7dB(A) based on their corresponding room size. It is understood that the room size would also

affect the sound attenuation performance. A conservative approach is adopted by adjusting the sound attenuation based on the relative room size of the project case and reference case. The sound attenuation is adjusted (downward only) based on the ratio of the room size of the project case and the reference case in order to reflect the difference in the base case (using conventional window). On the other hand, in case the room size of the project case is larger than the reference case or opening size of the conventional window in the project case is smaller than the reference case, no adjustment is made as a conservative approach. the room size of dormitory is typically 40 to 50 m<sup>2</sup>, which is larger than 18 m<sup>2</sup> of the reference case, therefore, no room size correction is included for conservative approach.

3.4.15. The assessment results revealed that all NSRs within the Proposed Development could comply with the respective noise criteria under the mitigated scenario. Hence, no adverse road traffic noise impact on the Proposed Development is anticipated and no road traffic noise mitigation measure is required.

### Planned Fixed Noise Impact from the Proposed Scheme

#### Prevailing Background noise Levels

3.4.16. Prevailing background noise measurement was conducted on 23 July 2025 for both daytime time and night-time periods. The measurement location is shown in **Figure 3.4**. The weather was fine during measurement. Measurements shall be accepted as valid only if the calibration levels from before and after the acoustic measurement agree to within 1.0dB(A). Noise measurement will not be made in the presence of fog, rain and wind with a steady speed exceeding 5ms<sup>-1</sup> or wind with gusts exceeding 10ms<sup>-1</sup>. The background noise monitoring results is summarized in **Table 3.7**.

**Table 3.7 Background Noise Monitoring Results**

Measurement Location	Period	Noise Level, dB(A)
BGN1 <sup>[1]</sup>	Day/Evening time	62.8
	Night time	51.6
Notes: [1] +3 façade correction is included for free-field measurement. [2] The noise measurement descriptor is A-weighted equivalent continuous sound pressure level (Leq) measured using Type 1 sound level meter (SVAN 979 Sound Level Meter).		

#### Impact Identification and Evaluation

3.4.17. According to the latest development scheme, potential fixed noise sources within the Proposed Scheme include the transformer room and E&M rooms. During the operation phase, potential fixed noise sources will be fully enclosed and located inside the

building structure. Noise impact arising from fixed plants is expected to be minimal.

3.4.18. To ensure the fixed plant noise generated by the Proposed Scheme would not cause excessive impact to neighbouring noise sensitive uses, potential fixed noise sources within the Proposed Scheme shall be properly designed to meet the relevant noise criteria as stipulated in Chapter 9 of the HKPSG.

3.4.19. Provisions shall be made to control the fixed noise sources by suitable at source noise control measures such as silencers and acoustic linings when necessary. As such, it is anticipated that the fixed plant noise impact on the surrounding NSRs due to the operation of the Proposed Scheme will not exceed the relevant noise criteria under the HKPSG and NCO.

#### Recommended Mitigation Measures

3.4.20. The following noise mitigation measures are recommended to control noise emissions from planned fixed plant noise sources within the Proposed Scheme:

- All the noisy plants should be installed within plant room or with acoustic enclosure;
- Proper selection of quiet plant aiming to reduce the tonality at NSRs;
- Installation of silencer / acoustic enclosure / acoustic louvre for the exhaust of ventilation system;
- Openings of ventilation systems should be located away from NSRs as far as practicable and oriented away from the NSRs;
- Installation of absorptive noise barrier (with density of absorption material of  $48\text{kg/m}^3$ ) for the aerator which would duly shield the engine and other noisy parts of the aerator as far as practicable, and;
- Provide suitable at source noise control measures with reference to EPD's "Good Practices on Ventilation System Noise Control" and "Good Practices on Pumping System Noise Control" such as silencers and acoustic linings when necessary.

### **Fixed Noise Impact on the Proposed Development**

#### Identification of Fixed Noise Sources

3.4.21. A number of existing fixed noise sources have been identified within 300m assessment area through desktop study and site visit conducted on 12 May 2025 and 23 July 2025.

**Figure 3.4** indicates the locations of existing major fixed noise sources with details summarized in **Table 3.8**.

**Table 3.8 Information of the Identified Fixed Noise Sources**

Location	Source ID	Equipment	Approximate Shortest Horizontal Distance to the Project Site
祥發五金貿易有限公司	S01	Lorry Crane	172m
Hung Kee Metal Recycling Int'l Ltd.	S02	Lorry Crane	200m
Dorfield Ltd.	S03	Fork Lift	234m

- 3.4.22. An approved Section 16 application (Application No. A/YL-NSW/318) for the development of a public vehicle parking area excluding Container Vehicle with EV charging facilities near the project site is identified as potential noise source to the Proposed Development. During site survey, car park is currently in operation, however, no noticeable noise is recorded. Given the development only allowed for 5 years operation, no adverse fixed noise impact is anticipated.
- 3.4.23. Detailed calculations of fixed noise assessment at NSRs are shown in **Appendix 3.4**, fixed noise assessment point with shortest distance to the noise sources is selected to demonstrate worst case scenario, all results complied with relevant noise standard, therefore, no adverse fixed noise impact to the Proposed Development is expected.

### **3.5. CONCLUSION**

#### **Construction Phase**

- 3.5.1. Evaluation on construction noise impact associated with different construction activities has been conducted. With the implementation of practical mitigation measures including good site management practices, use of quieter construction methods and equipment, and use of movable noise barriers and noise enclosures, the construction noise impact on the nearby NSRs would be minimized.

#### **Operation Phase**

- 3.5.2. Traffic noise impact has been identified and assessed based on the maximum traffic flow within 15 years upon commencement of operation of the Proposed Development. With the implementation of noise mitigation measures (i.e., Acoustic Windows (Baffle Type)), no adverse traffic noise impact is anticipated.
- 3.5.3. To ensure the fixed plant noise generated by the Proposed Scheme would not cause excessive impact to neighbouring noise sensitive uses, potential fixed noise sources within the Proposed Scheme shall be properly designed to meet the relevant noise criteria as stipulated in Chapter 9 of the HKPSG. Provisions shall be made to control the fixed noise sources by suitable at source noise control measures such as silencers and acoustic linings when necessary. As such, no adverse fixed plant noise impact on the surrounding NSRs due to the operation of the Proposed Scheme is expected.

## 4. WATER QUALITY IMPACT

### 4.1. INTRODUCTION

4.1.1. This section identifies the potential water quality impact that could arise from the Project during its construction and operation phases. It also recommends the corresponding measures to pre-empt and mitigate potential impacts as necessary.

### 4.2. RELEVANT LEGISLATION, STANDARDS AND GUIDELINES

4.2.1. The relevant legislation, standards and guidelines applicable to the present environmental review of water quality impacts include:

- Water Pollution Control Ordinance (WPCO) (Cap. 358);
- Water Pollution Control (General) Regulations (Cap. 358D);
- Water Pollution Control (Sewerage) Regulation (Cap. 358AL);
- Technical Memorandum on Standards for Effluents Discharged into Drainage and Sewerage Systems, Inland and Coastal Waters (TM-DSS);
- Hong Kong Planning Standards and Guidelines (HKPSG);
- Professional Persons Environmental Consultative Committee (ProPECC) Practice Note PN 1/23 “Drainage Plans subject to Comment by the Environmental Protection Department – Building (Standards of Sanitary Fitments, Plumbing, Drainage Works and Latrines) Regulations”; and
- Professional Persons Environmental Consultative Committee (ProPECC) Practice Note PN 2/24 “Construction Site Drainage”.

4.2.2. Under the WPCO, Hong Kong waters are divided into ten Water Control Zones (WCZs) and four supplementary water control zones. Corresponding statements of Water Quality Objectives (WQOs) are stipulated for different water regimes (marine waters, inland waters, bathing beaches subzones, secondary contact recreation subzones and fish culture subzones) in each of the WCZ based on their beneficial uses. The Project Site falls within the Deep Bay WCZ and the respective WQOs shall be followed.

### 4.3. WATER SENSITIVE RECEIVERS

4.3.1. The assessment area for water quality is defined by a distance of 500m from the Project Site boundary. Water sensitive receiver (WSR) located within 500m assessment area is listed in **Table 4.1** and its location is shown in **Figure 4.1**.

**Table 4.1 Water Sensitive Receiver**

WSR ID	Description	Approximate Distance from Site Boundary
W01	Ngau Tam Mei Channel	380m
W02	River Channel	30.5m
W03	Ponds	38m
W04	Ponds	25m

#### 4.4. CONSTRUCTION PHASE IMPACT REVIEW

##### Impact Identification and Evaluation

- 4.4.1. The major water quality concerns during the construction phase shall be the on-site runoff from dust suppression activities and rainfall, sewage effluent from construction workforce, and chemical spillage. The key pollutants would be suspended solids from surface runoff and other pollutants would include fuel and lubricant oil from the construction vehicles and powered mechanical equipment (PME) on-site.
- 4.4.2. The Contractor is required to apply discharge license for the discharge of effluent from the construction site under the WPCO and all discharges during the construction should comply with the TM-DSS issued under the WPCO.
- 4.4.3. During the construction of the Project, the workforce on-site will generate sewage effluents, which are characterized by high levels of Biochemical Oxygen Demand (BOD), ammonia and *E. coli* counts. Potential water quality impacts upon the local drainage and freshwater system may arise from these sewage effluents, if uncontrolled. The construction sewage should be handled by interim sewage treatment facilities, such as portable chemical toilets. Appropriate number of portable toilets should be provided by a licensed contractor to serve the large number of construction workers over the construction site. Provided that sewage is not discharged directly into the storm drains or watercourses adjacent to the construction site, and temporary sanitary facilities are used and properly maintained, it is unlikely that sewage generated from the Project Site would have a significant water quality impact.
- 4.4.4. A large variety of chemicals may be used during construction activities. These may include petroleum products, surplus adhesives, spent lubrication oil, grease and mineral oil, spent acid and alkaline solutions/solvent and other chemicals. The use of these chemicals and their storage as waste materials has the potential to create impacts on the water quality of adjacent watercourses or storm drains if spillage occurs. Waste oil may infiltrate into the surface soil layer, or runoff into local watercourses, increasing hydrocarbon levels. The potential impact could however be mitigated by practical mitigation measures and good site practices as given in the Waste Disposal

Ordinance (Cap. 354), its subsidiary regulations in particular the Waste Disposal (Chemical Waste) (General) Regulation (Cap. 354C) and the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes.

### **Recommended Mitigation Measures**

4.4.5. To mitigate the water quality impact during construction phase, construction practices outlined in the ProPECC PN 2/24, where applicable, shall be implemented. Typical relevant wastewater control measures include:

- Surface runoff from construction sites should be discharged into storm water drains via adequately designed sand/silt removal facilities such as sand traps, silt traps, sedimentation tanks and sediment basins. Channels or earth bunds or sand bag barriers should be provided on site to properly direct surface runoff to such silt removal facilities. Perimeter channels at site boundaries should be provided where necessary to intercept surface run-off from outside the site so that it will not wash across the site. Catchpits and perimeter channels should be constructed in advance of site formation works and earthworks;
- Silt removal facilities, channels and manholes should be maintained and the deposited silt and grit should be removed regularly, at the onset of and after each rainstorm to ensure that these facilities are functioning properly at all times;
- Construction works should be programmed to minimize soil excavation works in rainy seasons (generally from April to September). If soil excavation works could not be avoided in these months or at any time of year when rainstorms are likely, for the purpose of preventing soil erosion, temporarily exposed slope surfaces should be covered (e.g. by tarpaulin), and temporary access roads should be protected by crushed stone or gravel, as excavation proceeds. Intercepting channels should be provided (e.g. along the crest/edge of excavation) to prevent surface runoff from washing across exposed soil surfaces. Arrangements should always be in place to ensure that adequate surface protection measures can be safely carried out well before the arrival of a rainstorm;
- Earthworks final surfaces should be well compacted and the subsequent permanent works or surface protection works should be carried out immediately after the final surfaces are formed to prevent erosion caused by rainstorms. Appropriate drainage like intercepting channels should be provided where necessary;
- Open stockpiles of construction materials (e.g. aggregates, sand and fill material) on sites should be covered with tarpaulin or similar impermeable fabric during rainstorms. Measures should be taken to prevent washing away

construction materials, soil, silt or debris into any drainage system;

- Manholes (including newly constructed ones) should always be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage system, and to prevent surface runoff from getting into foul sewers. Discharge of surface runoff into foul sewers must always be prevented in order not to unduly overload the foul sewerage system;
- Wastewater generated from the washing down of mixer trucks and drum mixers and similar equipment should wherever practicable be recycled. The discharge of wastewater should be kept to a minimum;
- All vehicles and plants should be cleaned before they leave a construction site to ensure no earth, mud, debris and the like is deposited by them on roads. A wheel washing bay should be provided at every site exit if practicable and wash-water should have sand and silt settled out or removed before discharging into storm water drains. The section of construction road between the wheel washing bay and the public road should be paved to reduce vehicle tracking of soil and to prevent site run-off from entering public road drains;
- Before commencing any demolition works, all sewer and drainage connections should be sealed to prevent building debris, soil, sand, etc. from entering public sewers/drains;
- Wastewater generated from building construction activities including concreting, plastering, internal decoration, cleaning of works and similar activities should not be discharged into the storm water drainage system;
- Sewage from toilets, kitchens and similar facilities should be discharged into a foul sewer. If there is no foul sewer in the vicinity, chemical toilets, a septic tank and soakaway system will have to be provided as appropriate;
- Vehicle and plant servicing areas, vehicle wash bays and lubrication bays should as far as possible be located within roofed areas. The drainage in these covered areas should be connected to the foul sewer via petrol interceptor(s). Oil leakage or spillage should be contained and cleaned up immediately. Waste oil should be collected and stored for recycling or disposal in accordance with the Waste Disposal Ordinance (Cap. 354);
- Sufficient number of chemical toilets shall be provided by a licensed contractor and properly maintained; and
- The construction solid waste, debris and rubbish on-site should be collected, handled and disposed of properly to avoid causing any water quality impacts.

4.4.6. By adopting the above mitigation measures with best management practices, the

impacts arisen during the construction phase would be reduced to an acceptable level and adverse water quality impacts would not be anticipated.

#### **4.5. OPERATION PHASE IMPACT REVIEW**

##### **Impact Identification and Evaluation**

- 4.5.1. During operation phase, stormwater runoff from paved surfaces within the Project Site would be directed to a managed stormwater drainage system following the requirements in the ProPECC PN 1/23. Runoff from the roofs of buildings and road surfaces within the Project Site may carry suspended solids and other pollutants such as fuel, oils and heavy metals that could enter nearby surface water bodies or storm drains if uncontrolled. With implementation of stormwater best management practices including provision of trapped gullies and catchpits, adverse impact to the water quality is not anticipated.
- 4.5.2. Effluent discharge from the kitchen within the Proposed Development during operation phase is also governed by the WPCO. All restaurants and food processing factories are required to install grease traps so that greasy materials will be separated from wastewater before passing to communal sewers. The operator shall ensure that the grease traps are properly designed, constructed and maintained so as to effectively remove greasy materials from wastewater before discharge to the sewerage system. Materials removed from a grease trap shall be handled and disposed of properly in order to maintain kitchen hygiene and protect Hong Kong's environment. "Grease Traps for Restaurants and Food Processors" published by the EPD detailed the requirements of such discharge.
- 4.5.3. Sewage discharge would be the major water pollution source throughout the operation phase of the Proposed Development. Sewage generated from the Proposed Development would be collected and conveyed to the nearest public sewerage system, which is the Nam Sang Wai Sewage Pumping Station and Yuen Long Sewage Treatment Works, via proper connections. No sewage will be released to the environment without treatment.

##### **Recommended Mitigation Measures**

- 4.5.4. The following mitigation measures are recommended to avoid causing any water quality impacts during the operation phase:
  - Grease traps should be properly designed and constructed so as to effectively remove greasy materials from the kitchen wastewater before discharge to the sewerage system;
  - Grease traps should be properly maintained so that it can continue to function

as an effective grease removal device; and

- Materials removed from a grease trap should be handled and disposed of properly.

## **5. WASTE MANAGEMENT**

### **5.1. INTRODUCTION**

5.1.1. This section aims to assess the potential environmental impacts that may be resulted from the waste generation during the construction and operation of the Proposed Development. Options of reuse, minimization, recycling, treatment, storage, collection, transport and disposal of such wastes were examined. Where appropriate, procedures for waste reduction and management were considered, with environmental control measures to avoid or to minimize the impacts.

### **5.2. RELEVANT LEGISLATION, STANDARDS AND GUIDELINES**

5.2.1. The Waste Disposal Ordinance (WDO) (Cap. 354) prohibits unauthorized disposal of wastes, with waste defined as any substance that is abandoned. All wastes should be properly stored and disposed in accordance with relevant waste management regulations and guidelines listed below:

- Waste Disposal Ordinance (Cap. 354);
- Waste Disposal (Chemical Waste) (General) Regulation (Cap. 354C);
- Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Cap. 354N);
- Waste Disposal (Clinical Waste) (General) Regulation (Cap. 354O);
- Land (Miscellaneous Provisions) Ordinance (Cap. 28);
- Public Health and Municipal Services Ordinance (Cap. 132);
- Public Cleansing and Prevention of Nuisances Regulation (Cap. 132BK);
- Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes; and
- Code of Practice for the Management of Clinical Waste – Small Clinical Waste Producers.

### **5.3. CONSTRUCTION PHASE IMPACT REVIEW**

5.3.1. The construction activities to be carried out for the Proposed Development would result in the generation of a variety of wastes (i.e. construction and demolition (C&D) materials, chemical waste and general refuse). These C&D materials and wastes if not properly stored, handled and disposed of would give rise to environmental impacts, such as dust, odour, water quality and visual impacts.

5.3.2. Waste disposal during the construction phase would follow the trip ticket system and

comply with legislation requirements including:

- Application for a billing account in accordance with the Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Cap. 354N); and
- Registration as a Chemical Waste Producer and storage/disposal of chemical wastes in accordance with the Waste Disposal (Chemical Waste) (General) Regulation (Cap. 354C).

### Construction and Demolition Materials

5.3.3. C&D materials would be generated from the demolition and construction activities. All C&D materials generated shall be sorted into inert (i.e. excavated soil, rock, broken concrete) and non-inert C&D materials (i.e. vegetation, wood, plastics, packaging materials, etc). Inert C&D material reused on-site shall be encouraged to minimize material volumes requiring off-site transport. On-site reuse opportunities for inert materials will be identified prior to delivery to public fill reception facilities. Non-inert C&D materials should be reused or recycled, and landfill disposal should be considered as the last resort for waste handling. A summary of the estimated generation of the C&D materials is provided in **Table 5.1**.

**Table 5.1 Government Waste Facilities for Construction Waste**

Type of C&D Materials		Volume (m <sup>3</sup> )
Inert C&D materials	Total generation	1,169
	On-site reuse (i.e., backfilling)	117
	Transferred to surplus at public fill reception facilities (i.e., Tuen Mun 38 Fill Bank)	1052
Non-inert C&D materials to dispose of landfill (i.e., WENT landfill)		86.5
Total		1,255.5

### Chemical Waste

5.3.4. The maintenance and servicing of the construction plants and vehicles may generate a small amount of chemical waste, such as cleaning fluids, solvents, lubrication oil and fuels.

5.3.5. Chemical waste arising during the construction phase may pose environmental, health and safety hazards if not stored and disposed of appropriately as outlined in the Waste Disposal (Chemical Waste) (General) Regulation (Cap. 354C) and the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes. The potential

hazards include:

- Toxic effects on the construction workforce;
- Adverse impact on air quality and water quality due to spills; and
- Fire hazards.

5.3.6. Chemical waste may be generated any time throughout the construction phase of the Project. The amount of chemical waste that will arise from the construction activities will be highly dependent on the Contractor's on-site maintenance activities and the quantity of plant and equipment utilised. With respect to the scale of the construction activities, it is anticipated that the quantity of chemical waste to be generated will be small (i.e., a few litres per month). The chemical waste will be properly stored on site and will be collected by licensed chemical waste collectors regularly for disposal at the licensed chemical waste treatment facilities (i.e. Chemical Waste Treatment Centre (CWTC) in Tsing Yi). Reuse and recycle shall be prioritized, where disposal shall be the last resort for waste handling.

5.3.7. Storage, handling, transport and disposal of chemical waste should be arranged in accordance with the Code of Practice on the Packaging, Labelling and Storage of Chemical Waste published by the EPD. A trip-ticket system should be operated in accordance with the Waste Disposal (Chemical Waste) (General) Regulation (Cap. 354C) to monitor all movements of chemical wastes which would be collected by licensed chemical waste collectors to a licensed facility for final treatment and disposal.

5.3.8. Provided that the chemical waste is properly stored, handled, transported and disposed of, no adverse environmental impact would result from a minimal quantity of chemical waste arising from the Project.

#### **General Refuse**

5.3.9. The construction workforce would generate refuse comprising food scraps, paper waste, empty containers, etc. It is estimated that a maximum of about 15 construction workers will be working on site at any one time during the construction phase of the Project. With a general refuse generation rate of 0.65 kg per worker per day, the maximum amount of general refuse to be generated will be about 9.75 kg per day. The amount of general refuse which is likely to produce cannot be quantified at this time as it will be largely dependent on the size of the workforce employed by the contractor. General refuse will be produced any time throughout the construction phase of the Project. Such refuse will be properly stored in a designated area prior to collection and disposal. Disposal of refuse at site other than approved waste transfer or disposal facilities is prohibited. Effective collection of the on-site waste will prevent waste materials being blown around by wind, or creating an odour nuisance or pest and vermin problems. Waste storage areas will be well maintained and cleaned

regularly.

5.3.10. The daily generation of general refuse during the construction phase would be minimal and those waste generated could be effectively controlled by normal measures. With the implementation of good waste management practices on-site, adverse environmental impacts are not expected to arise from the storage, handling and transportation of general refuse.

#### **5.4. OPERATION PHASE IMPACT REVIEW**

##### **General Refuse**

5.4.1. General refuse is anticipated during the operation of the Proposed Development. It would be generated from the daily activities of elders, staff and visitors. General refuse would include food waste, paper waste and domestic waste. It is estimated that a maximum of 208 residents, 90 workers and visitors will be occupied in the development. With a general refuse generation rate of 1.44kg per person per day and recovery rate of 33% as per the Monitoring of Solid Waste in Hong Kong 2023, the maximum amount of general refuse to be generated will be about 640.5 kg per day during the operation phase. The storage of general refuse has potential to give rise to adverse environmental impacts. These include odour if waste is not collected frequently, windblown litter and visual impact. The Proposed Development may also attract pests and vermin if the waste storage area is not well maintained and cleaned regularly.

5.4.2. General refuse generated during the operation phase will be collected at the refuse collection point provided within the Proposed Development for further collection. The waste management practice will comply with the statutory requirements.

5.4.3. With the implementation of good waste management practices on-site, the environmental impacts caused by storage, handling, transportation and disposal of general refuse are expected to be minimal.

##### **Other Waste**

5.4.4. Small amount of chemical waste (e.g. lubricant generated from maintenance of equipment) and clinical waste (e.g. cartridges, ampoules, surgical dressings, swabs) may be generated during operation when the need arises. With a chemical waste generation rate of 0.003kg/day and a clinic waste generation rate of 0.001kg/day and the total occupancy of 298 person, it is anticipated that the maximum amount of other waste to be generated will be about 1.19kg per day during the operation phase. The handling, storage, transportation and disposal of chemical and clinical waste shall

comply with the requirements stipulated in the following legislation and code of practice:

- Waste Disposal (Chemical Waste) (General) Regulation (Cap. 354C);
- Waste Disposal (Clinical Waste) (General) Regulation (Cap. 354O);
- Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes; and
- Code of Practice for the Management of Clinical Waste – Small Clinical Waste Producers.

5.4.5. Provided that relevant legislation and code of practice are strictly followed during the handling, storage, transportation and disposal of chemical waste and clinical waste, no adverse environmental impact is anticipated.

## **5.5. WASTE MANAGEMENT STRATEGIES**

5.5.1. In line with Government's position on waste minimization, the practice of avoiding and minimizing waste generation and waste recycling should be adopted. It is recommended that waste reduction and management would be implemented, including the provision of recycling bins and adequate space to facilitate separation, collection and storage of recyclable materials for recycling in the refuse storage and material recovery chamber.

### **Waste Management Hierarchy**

5.5.2. The various waste management options are categorised in terms of preference from an environmental viewpoint. The options considered to be most preferable have the least environmental impacts and are more sustainable in the long term. The waste management hierarchy is as follows:

- Avoidance and reduction;
- Re-use of materials;
- Recovery and recycling; and
- Treatment and disposal.

5.5.3. The above hierarchy is used to evaluate and select waste management options. The aim is to reduce waste generation and reduce waste handling and disposal costs. Good site practices and mitigation measures recommended shall be implemented:-

- Nomination of approved personnel to be responsible for good site practices, arrangements for collection and effective disposal to an appropriate facility of all wastes generated at the site;
- Training of site personnel in proper waste management and chemical handling

procedures;

- Provision of sufficient waste disposal points and regular collection for disposal;
- Adoption of appropriate measures to reduce windblown/ floating litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers;
- Separation of chemical wastes for special handling and appropriate treatment at the Chemical Waste Treatment Centre; and
- A recording system for the amount of wastes generated, recycled and disposed of and the disposal sites.

### **Waste Reduction Measures**

5.5.4. Good management and control can prevent the generation of significant amount of waste. Waste reduction is best achieved at the planning and design stage, as well as by ensuring the implementation of good site practices. Recommendations to achieve waste reduction include:

- Segregation and storage of different types of waste in different containers, skips or stockpiles to enhance re-use or recycling of waste materials and their proper disposal;
- Encourage collection of aluminum cans and waste paper by individual collectors during construction with separate labelled bins provided to segregate these wastes from other general refuse by the workforce;
- Any unused chemicals, and those with remaining functional capacity, shall be prioritized to recycle;
- Use of reusable non-timber formwork to reduce the amount of C&D materials;
- Prior to disposal of C&D materials, wood, steel and other metals will be separated, to the extent practical for re-use and/or recycling to reduce the quantity of waste to be disposed in a landfill;
- Proper storage and site practices to reduce the potential for damage or contamination of construction materials; and
- Plan and stock construction materials carefully to reduce amount of waste generated and avoid unnecessary generation of waste.

### **Measures for Management of C&D Materials**

5.5.5. C&D materials will be segregated on-site into public fill and non-inert C&D materials and stored in different containers or skips to facilitate re-use of the public fill and proper disposal of the non-inert C&D materials. Specific areas within the construction sites will be designated for such segregation and storage, if immediate re-use is not

practicable. The C&D materials generated during the construction phase will be transported by trucks with cover or enclosed containers to minimize the potential environmental impact. Trip ticket system will be adopted to avoid illegal dumping. GPS monitoring on dump trucks will be considered to include as one of the contractual requirements for contractors.

### **Measures for Management of Chemical Waste & Other Waste**

5.5.6. The Contractor will register as a chemical waste producer with the EPD. Chemical waste will be handled in accordance with the *Code of Practice on the Packaging, Handling and Storage of Chemical Wastes* as listed below.

5.5.7. Chemical waste will be disposed of:

- Via a licensed waste collector; and
- To a facility licensed to receive chemical waste, such as the CWTC which also offers a chemical waste collection service.

### **Measures for Management of General Refuse**

5.5.8. General refuse will be stored in enclosed bins and delivered separately from C&D materials for offsite disposal on a daily basis to reduce odour, pest and litter impacts.

5.5.9. Recycling bins will be provided at strategic locations within the construction site to facilitate recovery of recyclable materials (including aluminium can, waste paper, glass bottles and plastic bottles) from the construction site. Materials recovered will be sold for recycling.

5.5.10. Recycling bins will be provided at strategic locations in the Proposed Development to facilitate recovery of recyclable materials (including aluminium can, waste paper, glass bottles and plastic bottles, food waste) during operation stage. Food waste, with potential odour nuisance and hygiene problems, is suggested to collect and send to the O Park in a daily basis. Materials recovered will be collected by the recyclers appointed by the facility management team.

## **5.6. CONCLUSION**

5.6.1. The potential impacts of wastes arising from construction and operation of the Proposed Development have been assessed. With the recommended procedures/ measures in place, the wastes generated/ disposed of during the construction and operation phases should not be result in any adverse environmental impacts.

## 6. LAND CONTAMINATION

### 6.1. INTRODUCTION

6.1.1. The potential environmental issues associated with land contamination have been reviewed and are presented in this section. The implications of land contamination for the proposed land uses in the Project Site have been assessed.

### 6.2. RELEVANT LEGISLATION, STANDARDS AND GUIDELINES

6.2.1. The relevant legislation, standards and guidelines applicable to the present review of land contamination include:

- Guidance Note for Contaminated Land Assessment and Remediation;
- Practice Guide for Investigation and Remediation of Contaminated Land;
- Guidance Manual for Use of Risk-based Remediation Goals for Contaminated Land Management.

### 6.3. ACQUISITION OF LOCAL AUTHORITY

6.3.1. The following HKSAR Government Departments have been enquired on the latest update on the availability of land use status and records of land contamination and/or spillage for the site. The summary of correspondence is presented in **Table 6.1** below. Copy of the letters replied from various Government Departments are included in **Appendix 6.1** for reference.

**Table 6.1 Enquiries and Responses on Land Contamination Related Records**

Consultant's Letter Ref.	Department	Response Date	Summary
W25185/RCHE-0002	Environmental Protection Department	3 Jul 2025	No record of chemical spillage/ leakage within the site boundary in the past ten years. No record of registered chemical waste producers was found on 10/7/2025 during the visit to the EPD Territory Control Office.
W25185/RCHE-0001	Fire Services Department	24 Jul 2025	No record of chemical spillage/ leakage, <b>Dangerous Goods licence, fire incidents, or related incident records</b> were found within the site boundary in the past three years.

## 6.4. SITE HISTORY

- 6.4.1. Selected historical aerial photographs between year 1977 and 2024 of the Project Site have been reviewed in order to ascertain any historical land uses with the potential for land contamination. The historical photographs in 1977, 1988, 1992, 2005, 2018, 2019, 2021 and 2024 are provided in **Figure 6.1** to indicate the past land use. Referring to **Table 6.2**, the Project Site was used as farmland in late 1970s to 1990s. Later, the land use was vacant and covered with vegetation till 2018. Afterwards, the land was converted to an open storage area in 2019 till 2021. The land was vacant again in 2024.
- 6.4.2. Before 2019, no potentially polluting activities were carried out in the Project Site. Vegetation on the ground was removed, and the ground remains unpaved since 2019. From 2019 to 2021, there were construction materials and construction equipment, such as metal steel, and casing, stored at the Project Site. **The stored materials are mostly inert materials with low land contamination risk and have been removed since 2024.** Due to short period of time for open storage use, no land contamination were anticipated.

**Table 6.2 Chronological Changes in Land Use Activities of the Project Site**

Year	Land Use Condition/ Activities
1977	Farmland
1988	Farmland
1992	Farmland
2005	Vacant land covered with vegetation
2018	Vacant land covered with vegetation
2019	Open Storage Area
2021	Open Storage Area
2024	Vacant land

## 6.5. CONCLUSION

- 6.5.1. The potential issues on land contamination of the Proposed Development have been assessed. Based on the aerial photographs and responses from HKSAR Government Departments, the Project Site should unlikely to have any previous land contamination history. Hence, it is anticipated that no potentially contaminating activities have been carried out and no potential sources and signs of contamination have been discovered.

## **7. CONCLUSION**

- 7.1.1. The Project is to construct a 3-storey RCHE dormitory and communal area. This EA Report addressed the potential environmental issues arising from the construction and operation of the Proposed Scheme, which include the air quality, noise, water quality, waste and land contamination.
- 7.1.2. With the recommended environmental mitigation measures in place, no unacceptable environmental impact on or arising from the Proposed Scheme is anticipated.

**FIGURE 1.1  
LOCATION OF PROJECT SITE**

LEGEND:

- Site Boundary
- 300/500m Assessment Area



	Prepared	Checked	Approved
Initial	LY	YS	HM
Date	20250530	20250530	20250530

Project Title  
 Proposed Social Welfare Facilities (Residential Care Home for the Elderly (RCHE)) in "Village Type Development" Zone, Various Lots in D.D. 104 and Adjoining Government Land, Nam Sang Wai, Yuen Long

Drawing Title  
 PROPOSED DEVELOPMENT LOCATION

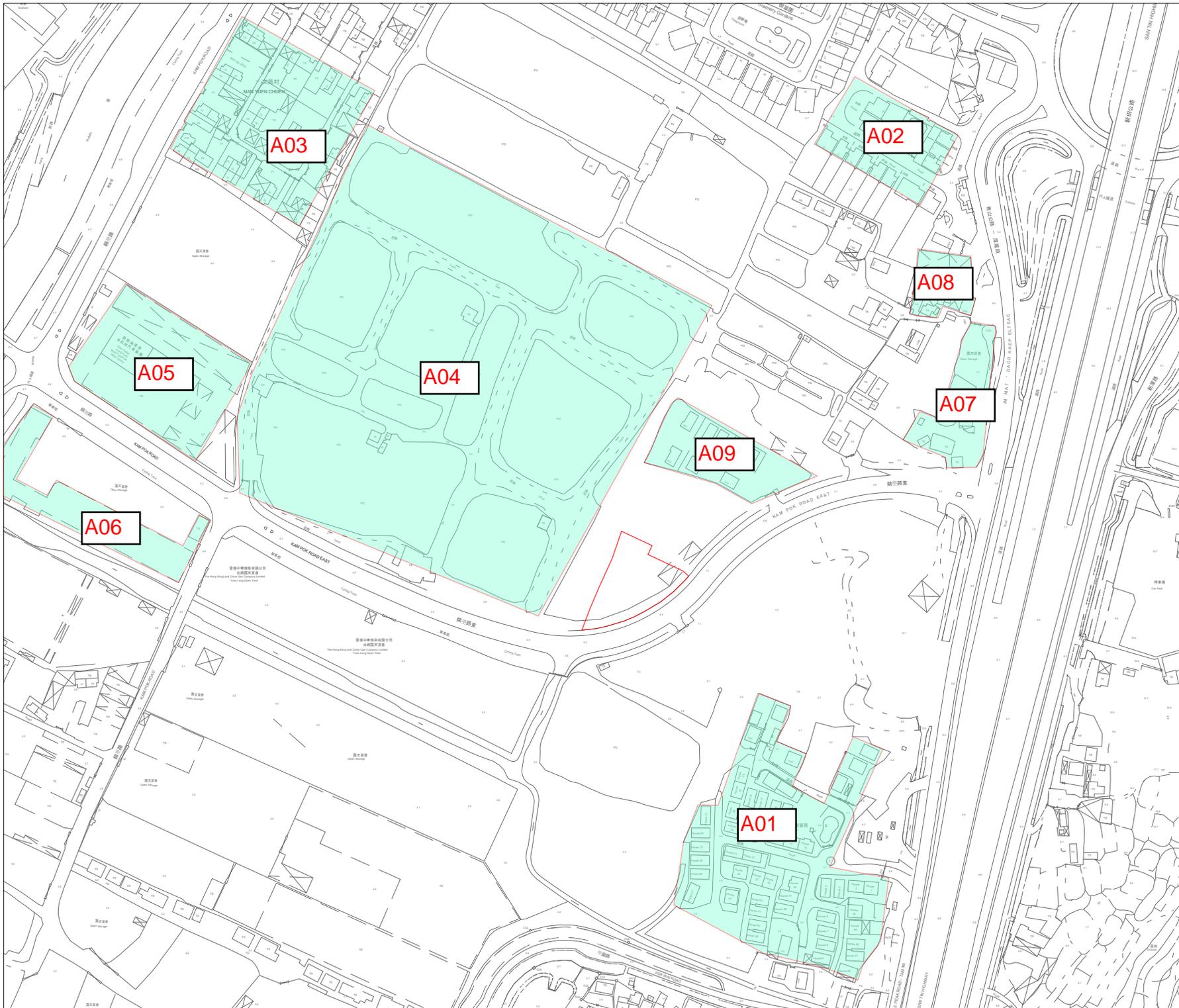
Drawing No. FIGURE 1	Rev. 0
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Scale:  
 A4 - 1:5500

**FIGURE 2.1  
LOCATION OF REPRESENTATIVE AIR  
SENSITIVE RECEIVERS**

LEGEND:

 Site Boundary



	Prepared	Checked	Approved
Initial	LY	YS	HM
Date	20250530	20250530	20250530

**Project Title**  
 Proposed Social Welfare Facilities (Residential Care Home for the Elderly (RCHE)) in "Village Type Development" Zone, Various Lots in D.D. 104 and Adjoining Government Land, Nam Sang Wai, Yuen Long

**Drawing Title**  
 LOCATION OF REPRESENTATIVE AIR SENSITIVE RECEIVERS

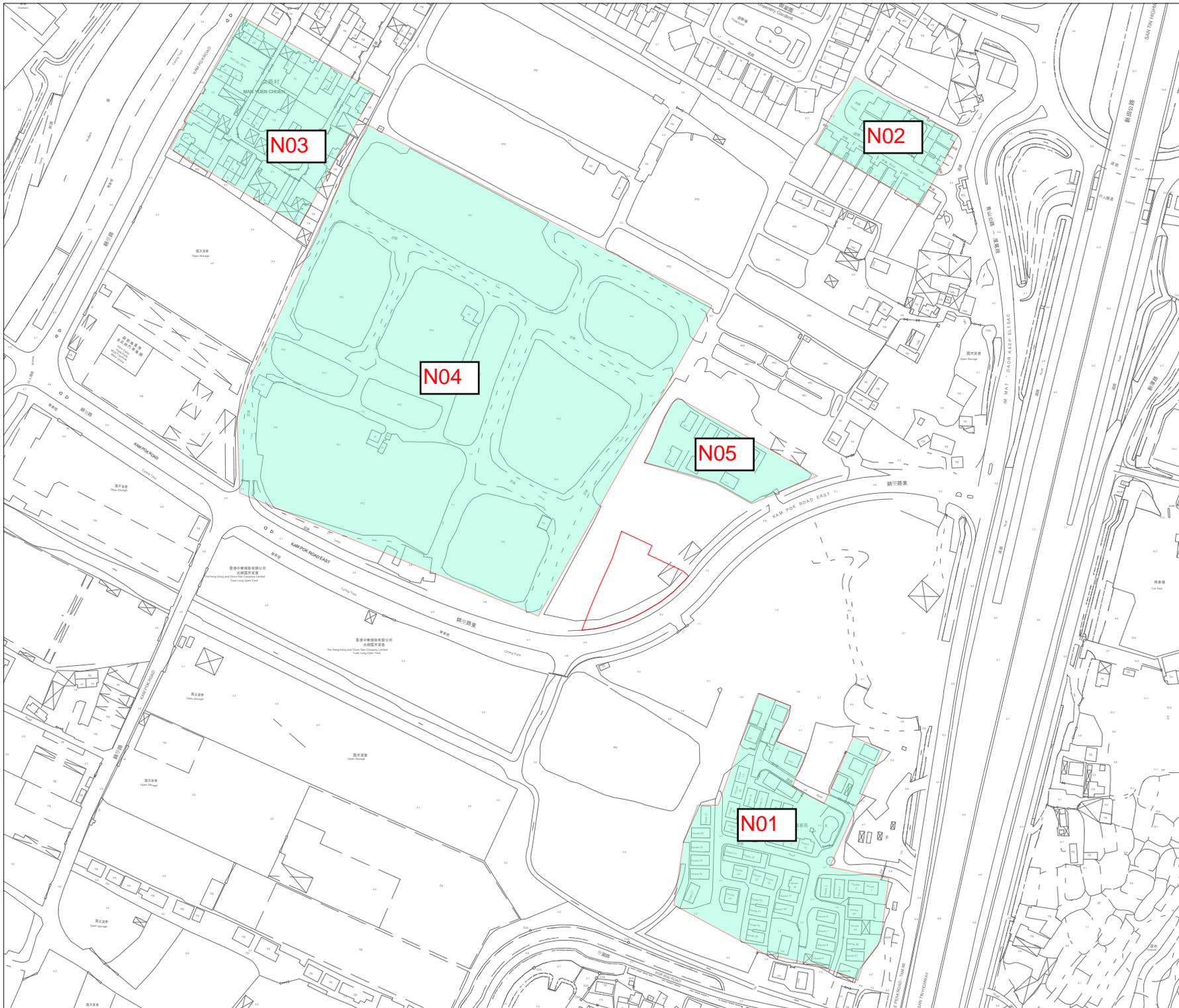
Drawing No. FIGURE 2.1	Rev. 0
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Scale:  
 A4 - 1:3000

**FIGURE 2.2  
BUFFER DISTANCES**



**FIGURE 3.1**  
**LOCATION OF REPRESENTATIVE NOISE**  
**SENSITIVE RECEIVERS**



LEGEND:

Site Boundary

	Prepared	Checked	Approved
Initial	LY	YS	HM
Date	20250530	20250530	20250530

**Project Title**  
 Proposed Social Welfare Facilities (Residential Care Home for the Elderly (RCHE)) in "Village Type Development" Zone, Various Lots in D.D. 104 and Adjoining Government Land, Nam Sang Wai, Yuen Long

**Drawing Title**  
 LOCATION OF REPRESENTATIVE NOISE SENSITIVE RECEIVERS

Drawing No. FIGURE 3.1	Rev. 0
---------------------------	-----------

Scale:  
 A4 - 1:3000

**FIGURE 3.2**  
**LOCATION OF REPRESENTATIVE TRAFFIC**  
**NOISE SENSITIVE RECEIVERS**

**LEGEND:**

- Project Site
- Noise Sensitive Receiver



	Prepared	Checked	Approved
Initial	LY	YS	HM
Date	20250526	20250526	20250526

**Project Title**  
 PROPOSED SOCIAL WELFARE FACILITIES (RESIDENTIAL CARE HOME FOR THE ELDERLY (RCHE)) IN "VILLAGE TYPE DEVELOPMENT" ZONE, VARIOUS LOTS IN D.D. 104 AND ADJOINING GOVERNMENT LAND, NAM SANG WAI, YUEN LONG

**Figure Title**  
 Location of Representative Traffic Noise Sensitive Receivers (G/F)

<b>Figure No.</b>	<b>Rev.</b>
Figure 3.2a	0

**LEGEND:**

- Project Site
- Noise Sensitive Receiver



	Prepared	Checked	Approved
Initial	LY	YS	HM
Date	20250930	20250930	20250930

**Project Title**  
 PROPOSED SOCIAL WELFARE FACILITIES (RESIDENTIAL CARE HOME FOR THE ELDERLY (RCHE)) IN "VILLAGE TYPE DEVELOPMENT" ZONE, VARIOUS LOTS IN D.D. 104 AND ADJOINING GOVERNMENT LAND, NAM SANG WAI, YUEN LONG

**Figure Title**  
 Location of Representative Traffic Noise Sensitive Receivers (1/F)

<b>Figure No.</b>	<b>Rev.</b>
Figure 3.2b	0

**LEGEND:**

- Project Site
- Noise Sensitive Receiver



	Prepared	Checked	Approved
Initial	LY	YS	HM
Date	20250930	20250930	20250930

**Project Title**  
 PROPOSED SOCIAL WELFARE FACILITIES (RESIDENTIAL CARE HOME FOR THE ELDERLY (RCHE)) IN "VILLAGE TYPE DEVELOPMENT" ZONE, VARIOUS LOTS IN D.D. 104 AND ADJOINING GOVERNMENT LAND, NAM SANG WAI, YUEN LONG

**Figure Title**  
 Location of Representative Traffic Noise Sensitive Receivers (2/F)

<b>Figure No.</b>	<b>Rev.</b>
Figure 3.2c	0

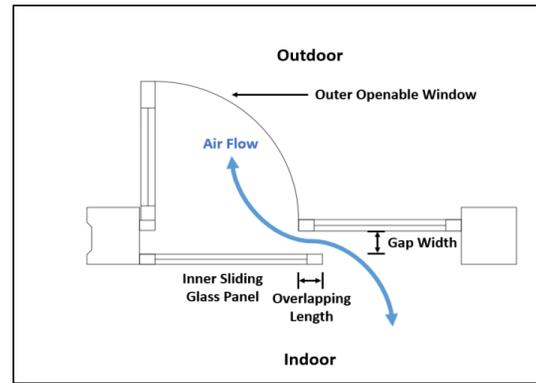
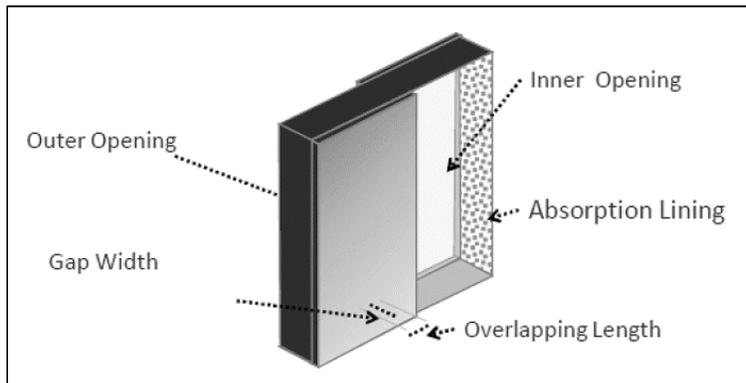
**FIGURE 3.3**  
**LOCATION OF PROPOSED ACOUSTIC**  
**WINDOW**

**Proposed Types of Acoustic Window (Baffle Type)**

Type of AW(BT)	Reference Case	Room Area, m <sup>2</sup>	Noise Attenuation, dB(A)	Inner Window Opening, mm		Outer Window Opening, mm		Window Overlapping Length, mm	Window Pane Separation, mm	MPA <sup>[1]</sup> Applied?
				Height	Width	Height	Width			
Type 1	EPD	8	6	870	580	870	600	100	100	No
Type 2	EPD	18	7	1500	750	1500	750	100	100	No

Notes:

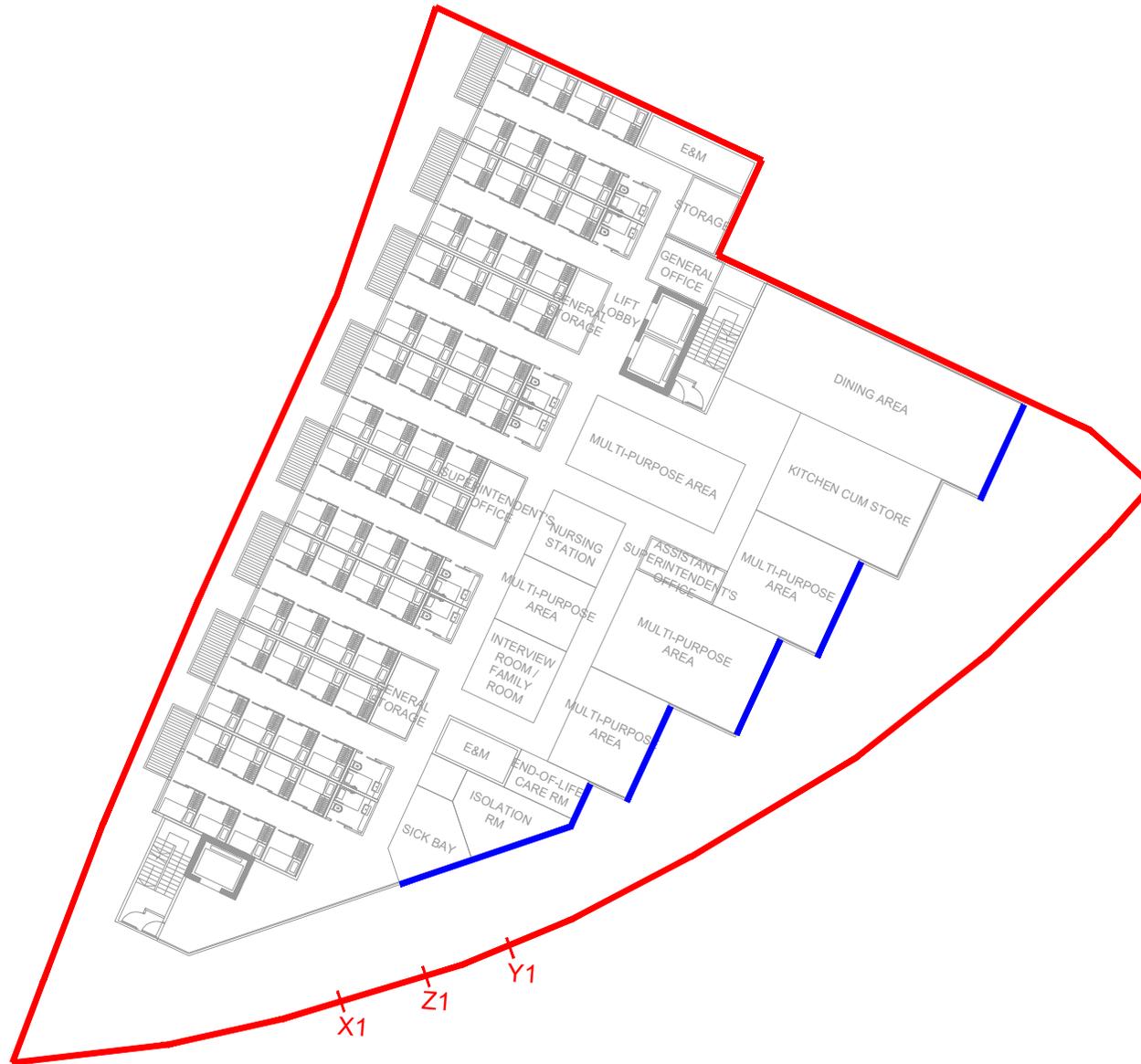
[1] MPA: Micro-Perforated Absorber



**LEGEND:**

 Project Site

 Type 2 AW (BT)



	Prepared	Checked	Approved
Initial	LY	YS	HM
Date	20250526	20250526	20250526

**Project Title**

PROPOSED SOCIAL WELFARE FACILITIES (RESIDENTIAL CARE HOME FOR THE ELDERLY (RCHE)) IN "VILLAGE TYPE DEVELOPMENT" ZONE, VARIOUS LOTS IN D.D. 104 AND ADJOINING GOVERNMENT LAND, NAM SANG WAI, YUEN LONG

**Figure Title**

Location of Proposed Acoustic Window (1/F)

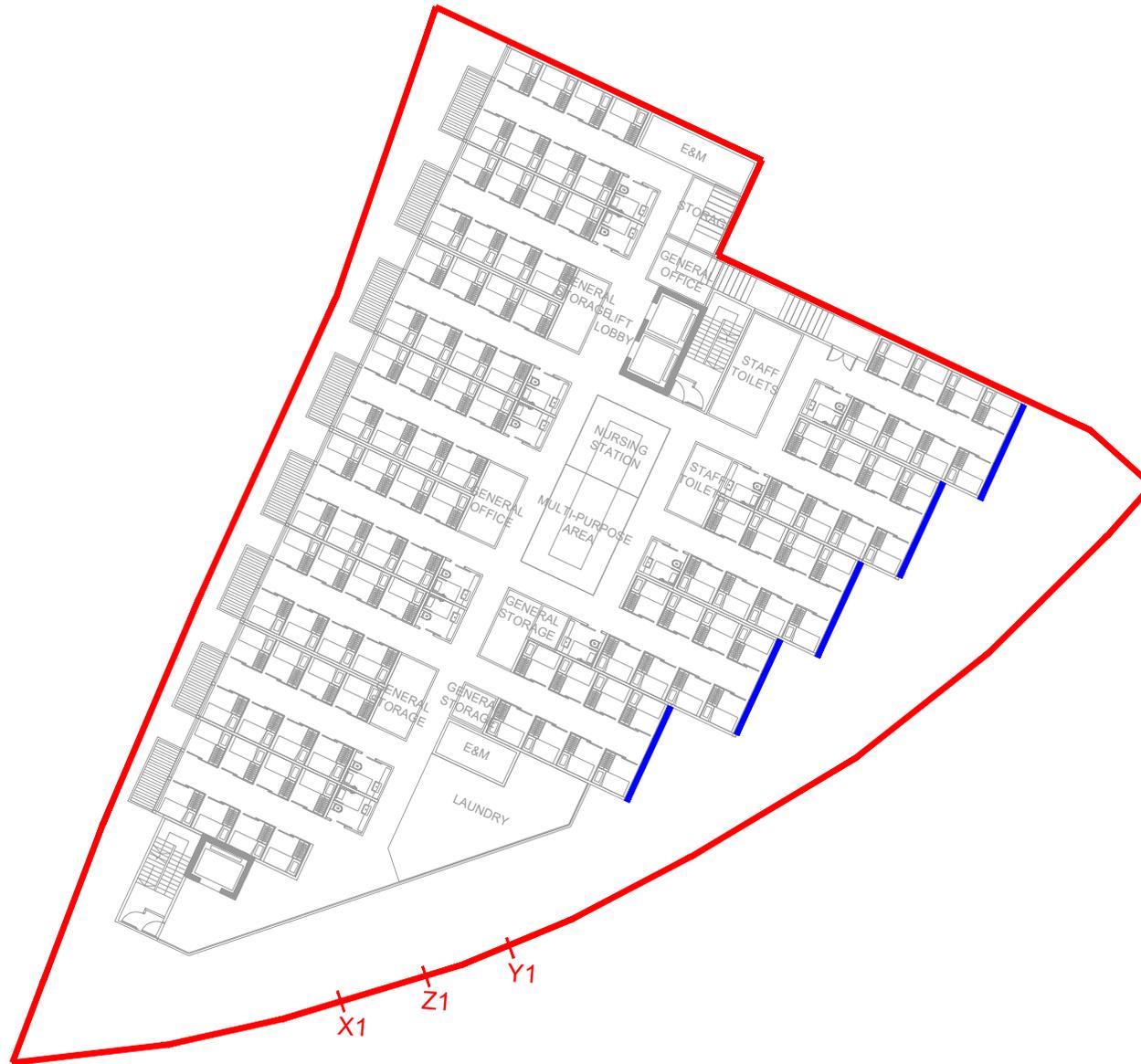
<b>Figure No.</b>	<b>Rev.</b>
Figure 3.3a	0



**LEGEND:**

 Project Site

 Type 2 AW (BT)



	Prepared	Checked	Approved
Initial	LY	YS	HM
Date	20250930	20250930	20250930

**Project Title**

PROPOSED SOCIAL WELFARE FACILITIES (RESIDENTIAL CARE HOME FOR THE ELDERLY (RCHE)) IN "VILLAGE TYPE DEVELOPMENT" ZONE, VARIOUS LOTS IN D.D. 104 AND ADJOINING GOVERNMENT LAND, NAM SANG WAI, YUEN LONG

**Figure Title**

Location of Proposed Acoustic Window (2/F)

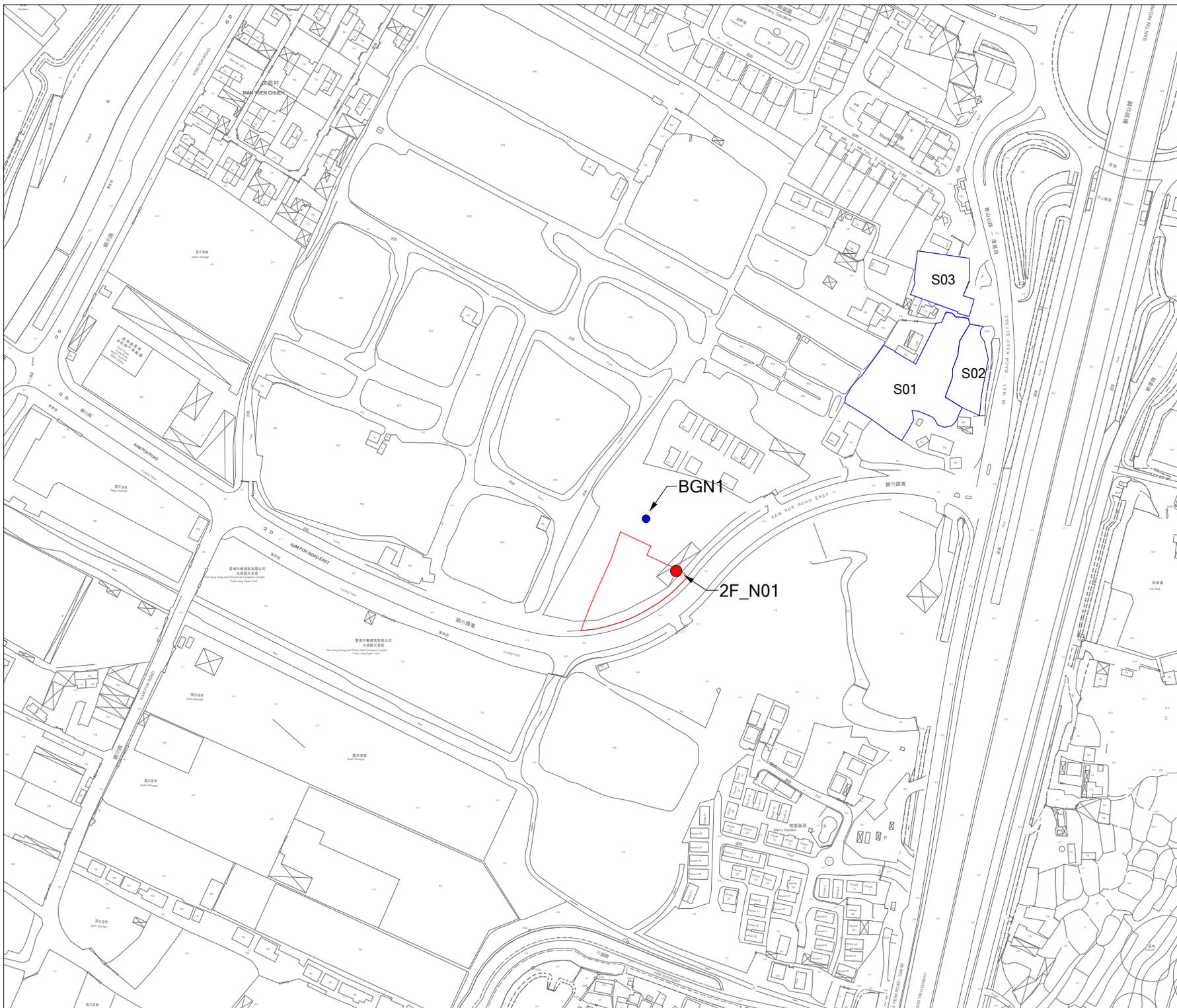
Figure No.	Rev.
Figure 3.3b	0



**FIGURE 3.4**  
**LOCATION OF BACKGROUND NOISE**  
**MEASUREMENT AND MAJOR FIXED NOISE**  
**SOURCES**

LEGEND:

- Site Boundary
- Major Fixed Noise Sources
- Background Noise Measurement Location
- Representative NSRs



	Prepared	Checked	Approved
Initial	LY	YS	HM
Date	20250915	20250915	20250915

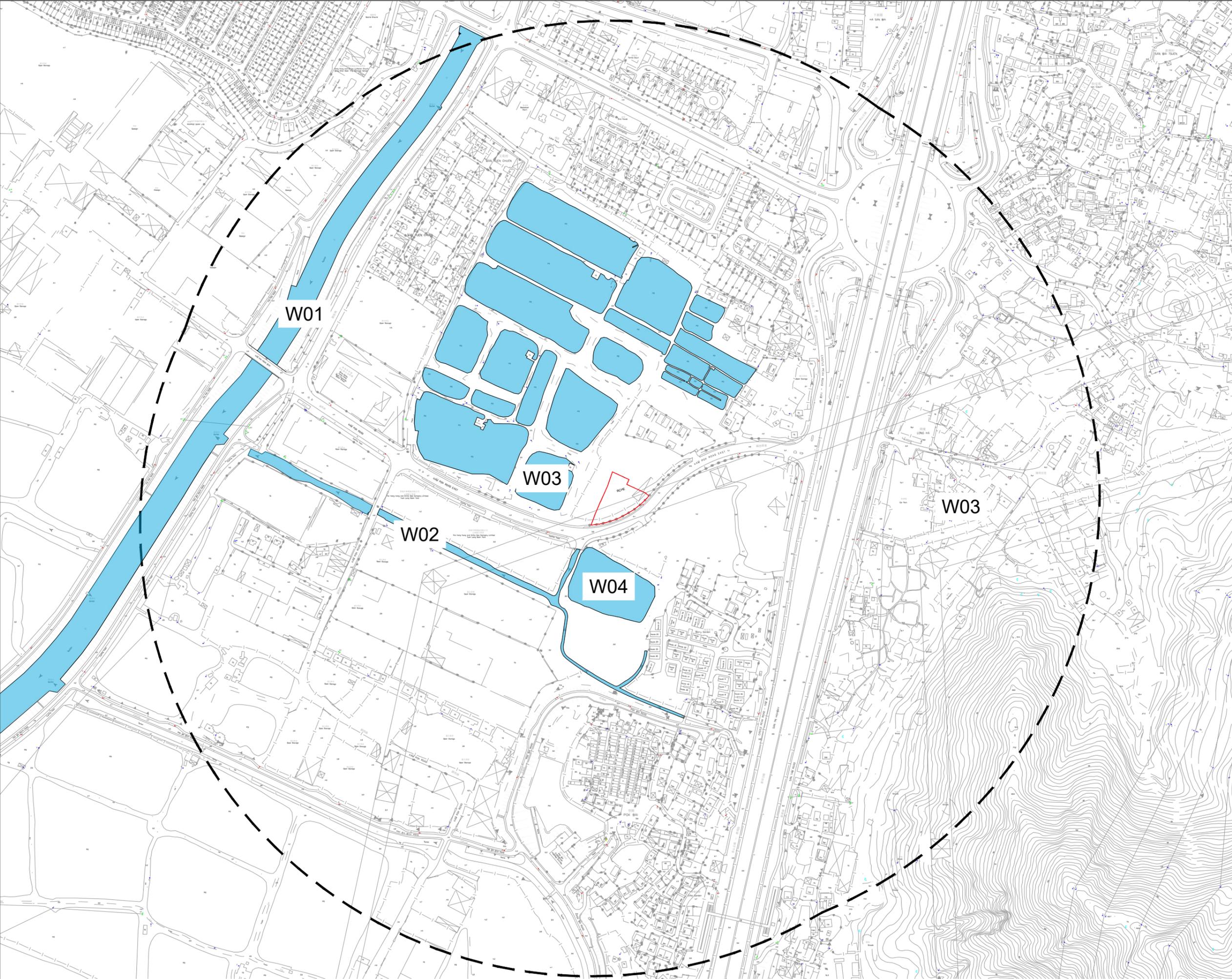
**Project Title**  
 Proposed Social Welfare Facilities (Residential Care Home for the Elderly (RCHE)) in "Village Type Development" Zone, Various Lots in D.D. 104 and Adjoining Government Land, Nam Sang Wai, Yuen Long

**Drawing Title**  
 LOCATION OF BACKGROUND NOISE MEASUREMENT AND MAJOR FIXED NOISE SOURCES

<b>Drawing No.</b> FIGURE 3.4	<b>Rev.</b> 0
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**Scale:**  
 A4 - 1:3000

**FIGURE 4.1**  
**LOCATION OF WATER SENSITIVE RECEIVER**



- Project Site
- 500m Assessment Boundary
- Water Sensitive Receiver

	Prepared	Checked	Approved
Initial	Various	TL	HM
Date	20250923	20250923	20250923

**Project Title**  
 PROPOSED SOCIAL WELFARE FACILITIES (RESIDENTIAL CARE HOME FOR THE ELDERLY (RCHE)) IN "VILLAGE TYPE DEVELOPMENT" ZONE, VARIOUS LOTS IN D.D. 104 AND ADJOINING GOVERNMENT LAND, NAM SANG WAI, YUEN LONG

**Drawing Title**  
 Location of Water Sensitive Receiver

Drawing No.	Rev.
Figure 4.1	1

Scale: A3

**FIGURE 6.1  
AERIAL PHOTOS**

LEGEND:

 Site Boundary



Year 1977



Year 1988



Year 1992



Year 2005

	Prepared	Checked	Approved
Initial	LY	YS	HM
Date	20250630	20250630	20250630

Project Title  
 Proposed Social Welfare Facilities (Residential Care Home for the Elderly (RCHE)) in "Village Type Development" Zone, Various Lots in D.D. 104 and Adjoining Government Land, Nam Sang Wai, Yuen Long

DrawingTitle  
 AERIAL PHOTOS

Drawing No. FIGURE 6.1a	Rev. 0
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Scale:  
 A4 - N.T.S

LEGEND:

 Site Boundary



Year 2018



Year 2019



Year 2021



Year 2024

	Prepared	Checked	Approved
Initial	LY	YS	HM
Date	20250630	20250630	20250630

Project Title  
 Proposed Social Welfare Facilities (Residential Care Home for the Elderly (RCHE)) in "Village Type Development" Zone, Various Lots in D.D. 104 and Adjoining Government Land, Nam Sang Wai, Yuen Long

DrawingTitle  
 AERIAL PHOTOS

Drawing No. FIGURE 6.1b	Rev. 0
----------------------------	-----------

Scale:  
 A4 - N.T.S

# **APPENDIX 1.1 INDICATIVE BUILDING PLAN**

NOTES:

LEGEND:

- THE SITE
- EVA
- GOVERNMENT LAND
- OVERHEAD LINES
- EXISTING NOISE BARRIER

REV	DATE	DESCRIPTION	BY	CHKD
A	22.9.2025	CONCEPT DESIGN	KC	PC
-	5.5.2025	CONCEPT DESIGN	KC	PC

Do not scale from drawings. All dimensions must be checked and verified on site before any works are undertaken. Any discrepancies must be reported in writing to Architect.

CLIENT

TOWN PLANNER

DeSPACE (International) Limited

ARCHITECT

Vessel International Limited  
Syn Plus Design Limited



PROJECT : Proposed Social Welfare Facilities (Residential Care Home for the Elderly (RCHE)) in "Village Type Development" Zone, Various Lots in D.D. 104 and Adjoining Government Land, Nam Sang Wai, Yuen Long

DRAWING : EVA PLAN

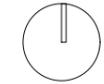
SCALE : 1:400 @A3

PROJECT NO : 25001\_KPR

Drawing No. : Date:

**FIGURE 2** MAY 2025





NOTES:

REV	DATE	DESCRIPTION	BY	CHKD
A	9.7.2025	CONCEPT DESIGN	KC	PC
-	5.5.2025	CONCEPT DESIGN	KC	PC

Do not scale from drawings. All dimensions must be checked and verified on site before any works are undertaken. Any discrepancies must be reported in writing to Architect.

CLIENT

TOWN PLANNER

DeSPACE (International) Limited



ARCHITECT

Vessel International Limited  
Syn Plus Design Limited



PROJECT : Proposed Social Welfare Facilities (Residential Care Home for the Elderly (RCHE)) in "Village Type Development" Zone, Various Lots in D.D. 104 and Adjoining Government Land, Nam Sang Wai, Yuen Long

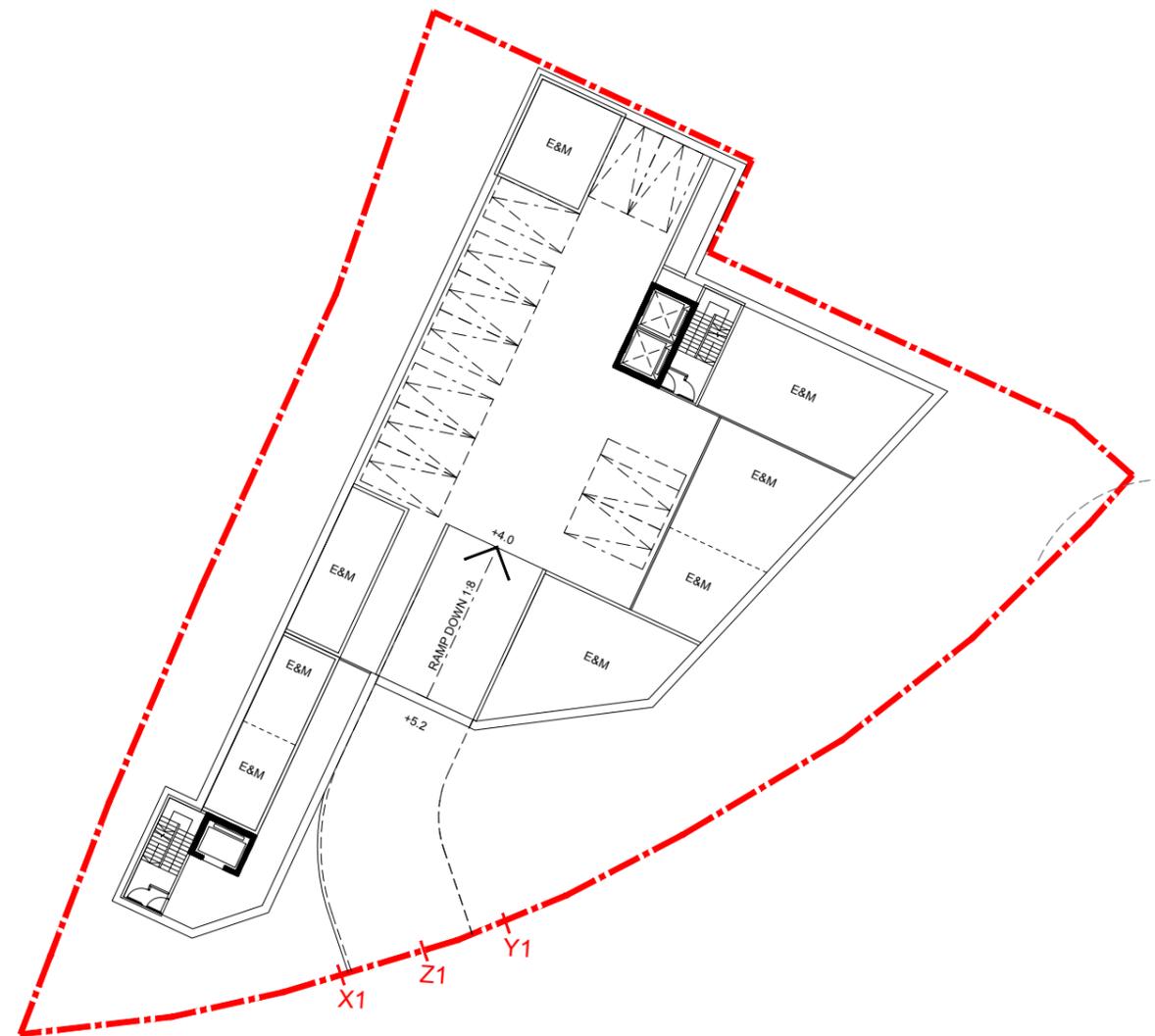
DRAWING : BASEMENT FLOOR PLAN

SCALE : 1:400 @A3 Rev: —

PROJECT NO: 25001\_KPR

Drawing No. : Date:

CP-B102 MAY 2025



**BASEMENT FLOOR PLAN**  
KAM POK ROAD E RCHE 1:400 @ A3

NOTES:

LEGEND:



REV	DATE	DESCRIPTION	BY	CHKD
B	22.9.2025	CONCEPT DESIGN	KC	PC
A	9.7.2025	CONCEPT DESIGN	KC	PC
-	5.5.2025	CONCEPT DESIGN	KC	PC

Do not scale from drawings. All dimensions must be checked and verified on site before any works are undertaken. Any discrepancies must be reported in writing to Architect.

CLIENT

TOWN PLANNER

DeSPACE (International) Limited



ARCHITECT

Vessel International Limited  
Syn Plus Design Limited



PROJECT : Proposed Social Welfare Facilities (Residential Care Home for the Elderly (RCHE)) in "Village Type Development" Zone, Various Lots in D.D. 104 and Adjoining Government Land, Nam Sang Wai, Yuen Long

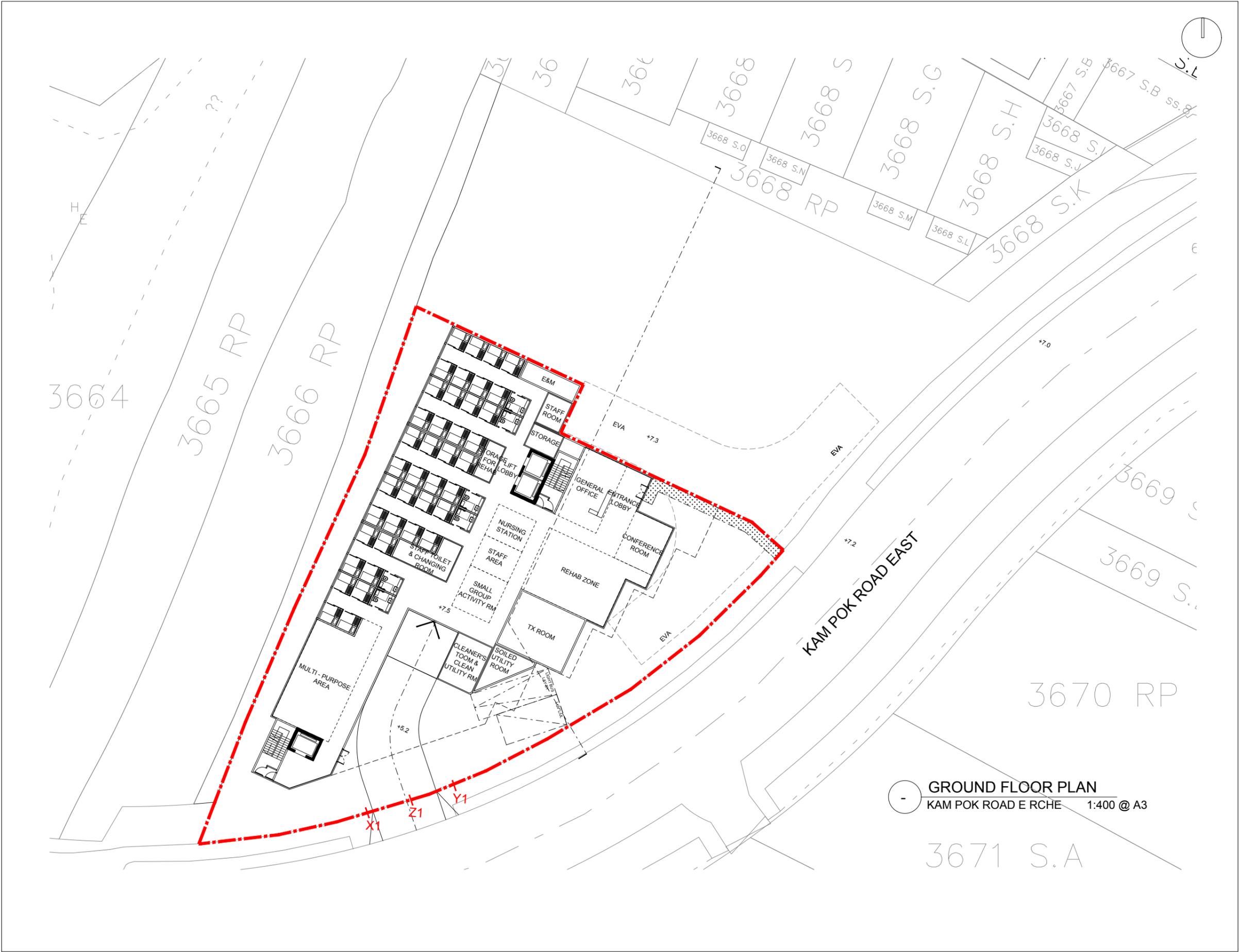
DRAWING : GROUND FLOOR PLAN

SCALE : 1:400 @A3

PROJECT NO: 25001\_KPR

Drawing No. : Date:

CP-B103 MAY 2025



GROUND FLOOR PLAN  
KAM POK ROAD E RCHE 1:400 @ A3

3671 S.A



NOTES:

  
PROPOSED BALCONIES

REV	DATE	DESCRIPTION	BY	CHKD
A	9.7.2025	CONCEPT DESIGN	KC	PC
-	5.5.2025	CONCEPT DESIGN	KC	PC

Do not scale from drawings. All dimensions must be checked and verified on site before any works are undertaken. Any discrepancies must be reported in writing to Architect.

CLIENT

TOWN PLANNER

DeSPACE (International) Limited



ARCHITECT

Vessel International Limited  
Syn Plus Design Limited



PROJECT : Proposed Social Welfare Facilities (Residential Care Home for the Elderly (RCHE)) in "Village Type Development" Zone, Various Lots in D.D. 104 and Adjoining Government Land, Nam Sang Wai, Yuen Long

DRAWING : FIRST FLOOR PLAN

SCALE : 1:400 @A3 Rev: -

PROJECT NO : 25001\_KPR

Drawing No. : Date:

**CP-B104** MAY 2025



**1ST FLOOR PLAN**  
KAM POK ROAD E RCHE 1:400 @ A3



NOTES:

 PROPOSED BALCONIES

REV	DATE	DESCRIPTION	BY	CHKD
A	9.7.2025	CONCEPT DESIGN	KC	PC
-	5.5.2025	CONCEPT DESIGN	KC	PC

Do not scale from drawings. All dimensions must be checked and verified on site before any works are undertaken. Any discrepancies must be reported in writing to Architect.

CLIENT

TOWN PLANNER

DeSPACE (International) Limited



ARCHITECT

Vessel International Limited  
Syn Plus Design Limited



PROJECT : Proposed Social Welfare Facilities (Residential Care Home for the Elderly (RCHE)) in "Village Type Development" Zone, Various Lots in D.D. 104 and Adjoining Government Land, Nam Sang Wai, Yuen Long

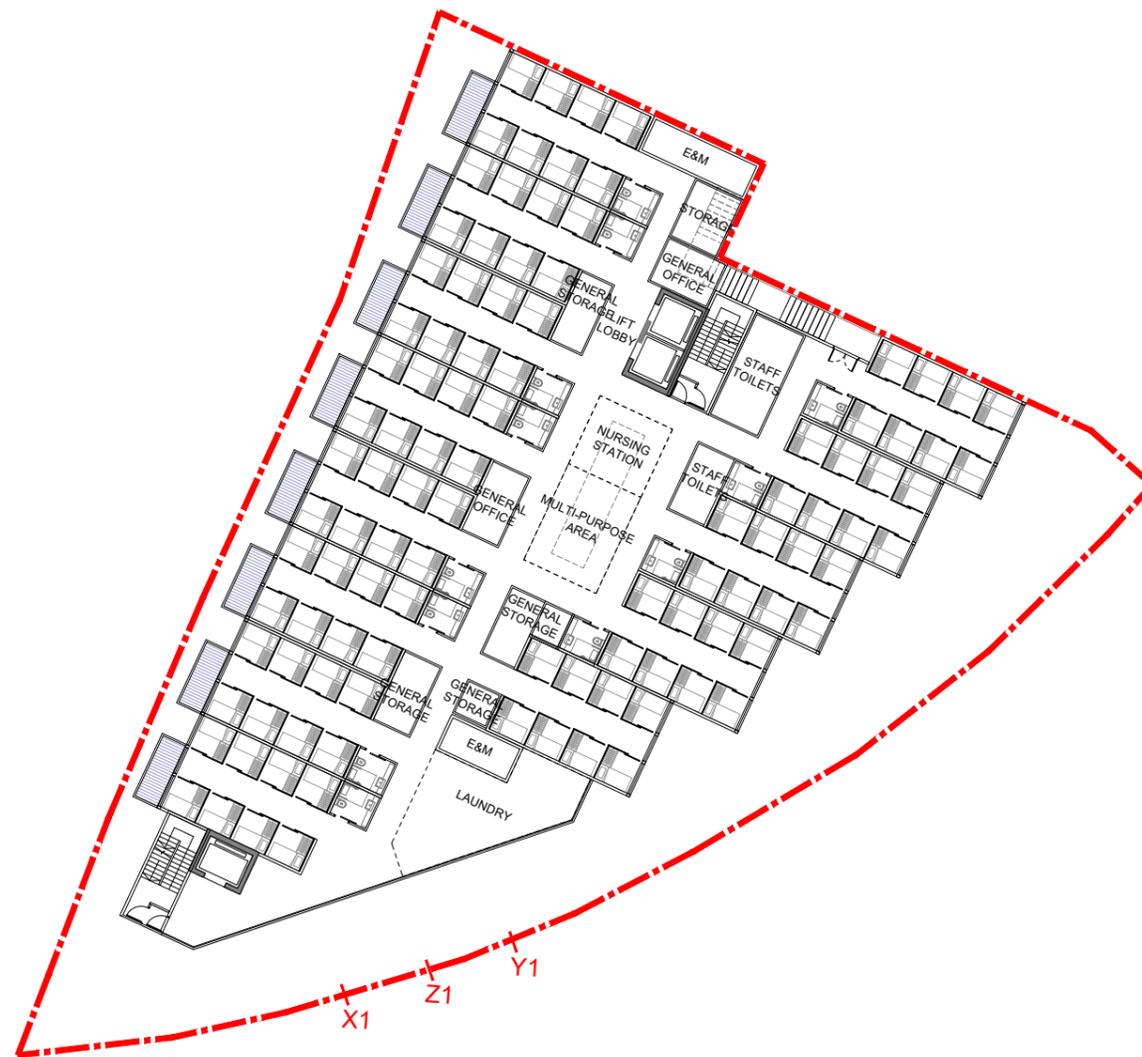
DRAWING : SECOND FLOOR PLAN

SCALE : 1:400 @A3 Rev: -

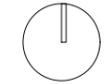
PROJECT NO : 25001\_KPR

Drawing No. : Date:

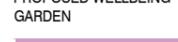
CP-B105 MAY 2025



 **2ND FLOOR PLAN**  
KAM POK ROAD E RCHE 1:400 @ A3



NOTES:

	
PROPOSED PLANTERS	PROPOSED LAWN
	
PROPOSED SKYLIGHT	PROPOSED WELLBEING GARDEN
	
PROPOSED VIEWING DECK	PROPOSED INTERACTIVE CONNECTION ZONE

REV	DATE	DESCRIPTION	BY	CHKD
-	5.5.2025	CONCEPT DESIGN	KC	PC

Do not scale from drawings. All dimensions must be checked and verified on site before any works are undertaken. Any discrepancies must be reported in writing to Architect.

CLIENT

TOWN PLANNER

DeSPACE (International) Limited



ARCHITECT

Vessel International Limited  
Syn Plus Design Limited



PROJECT : Proposed Social Welfare Facilities (Residential Care Home for the Elderly (RCHE)) in "Village Type Development" Zone, Various Lots in D.D. 104 and Adjoining Government Land, Nam Sang Wai, Yuen Long

DRAWING : ROOF PLAN

SCALE : 1:400 @A3 Rev: -

PROJECT NO : 25001\_KPR

Drawing No. : Date:

CP-B106 MAY 2025



ROOF PLAN  
KAM POK ROAD E RCHE 1:400 @ A3



NOTES:

REV	DATE	DESCRIPTION	BY	CHKD
-	5.5.2025	CONCEPT DESIGN	KC	PC

Do not scale from drawings. All dimensions must be checked and verified on site before any works are undertaken. Any discrepancies must be reported in writing to Architect.

CLIENT

TOWN PLANNER

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ARCHITECT

Vessel International Limited  
Syn Plus Design Limited



PROJECT : Proposed Social Welfare Facilities (Residential Care Home for the Elderly (RCHE)) in "Village Type Development" Zone, Various Lots in D.D. 104 and Adjoining Government Land, Nam Sang Wai, Yuen Long

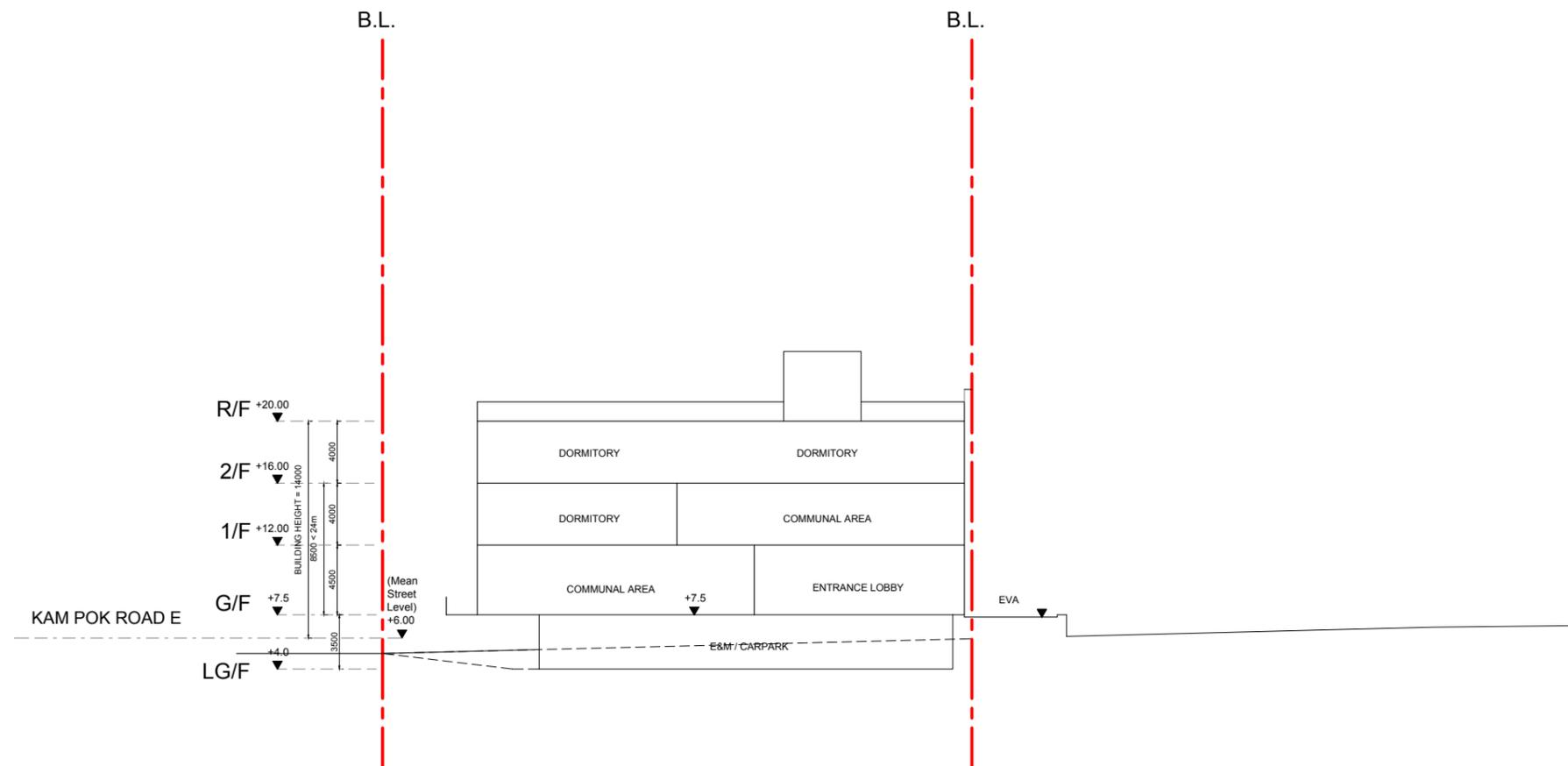
DRAWING : SCHEMATIC SECTION

SCALE : 1: 400 @A3 Rev: —

PROJECT NO: 25001\_KPR

Drawing No. : Date:

CP-B201 MAY 2025



SCHEMATIC SECTION  
KAM POK ROAD E RCHE 1:400 @ A3

## **APPENDIX 2.1**

# **TD'S ENDORSEMENT ON THE ROAD TYPE**

---

**From:** Chi Kong LEUNG <chikongleung@td.gov.hk>  
**Sent:** Tuesday, September 2, 2025 4:50 PM  
**To:** CKM Asia  
**Cc:** Vincent Ming Kin LAI  
**Subject:** Re: Section 16 Planning Application No. A/YL-NSW/348 and A/YL-NSW/349  
**Attachments:** item 1 - comments from EPD.PDF

Dear Tommy,

Your preceding email refers.

TD has no comment on your interpretation of the road type classification on Kam Pok Road and Kam Pok Road East.

Thank you.

Regards,  
Donald Leung  
E/BP, TE/NTW  
Transport Department  
Tel. 2399 2778

From: "CKM Asia" <[REDACTED]>  
To: "chikongleung@td.gov.hk" <chikongleung@td.gov.hk>  
Date: 02/09/2025 01:48 PM  
Subject: Section 16 Planning Application No. A/YL-NSW/348 and A/YL-NSW/349

---

**Attn: Transport Department – Mr. LEUNG Chi Kong, Donald (Engr/Boundary Projects)**

Dear Donald,

As per our discussion this morning, Environmental Protection Department in their comment for the captioned project (see item 7 in attached **item 1**), requested for road type for Kam Pok Road East.

We refer to the Annual Traffic Census from Transport Department, Castle Peak Road – Tam Mi is classified as a Rural Road. With the consideration of the road connection with Castle Peak Road – Tam Mi, we have assumed as follows:

- 1) Kam Pok Road East – Rural Road
- 2) Kam Pok Road – Rural Road

It is much appreciated if you could confirm if you agree to the road types above. Should you have any queries, please do not hesitate to contact the undersigned.

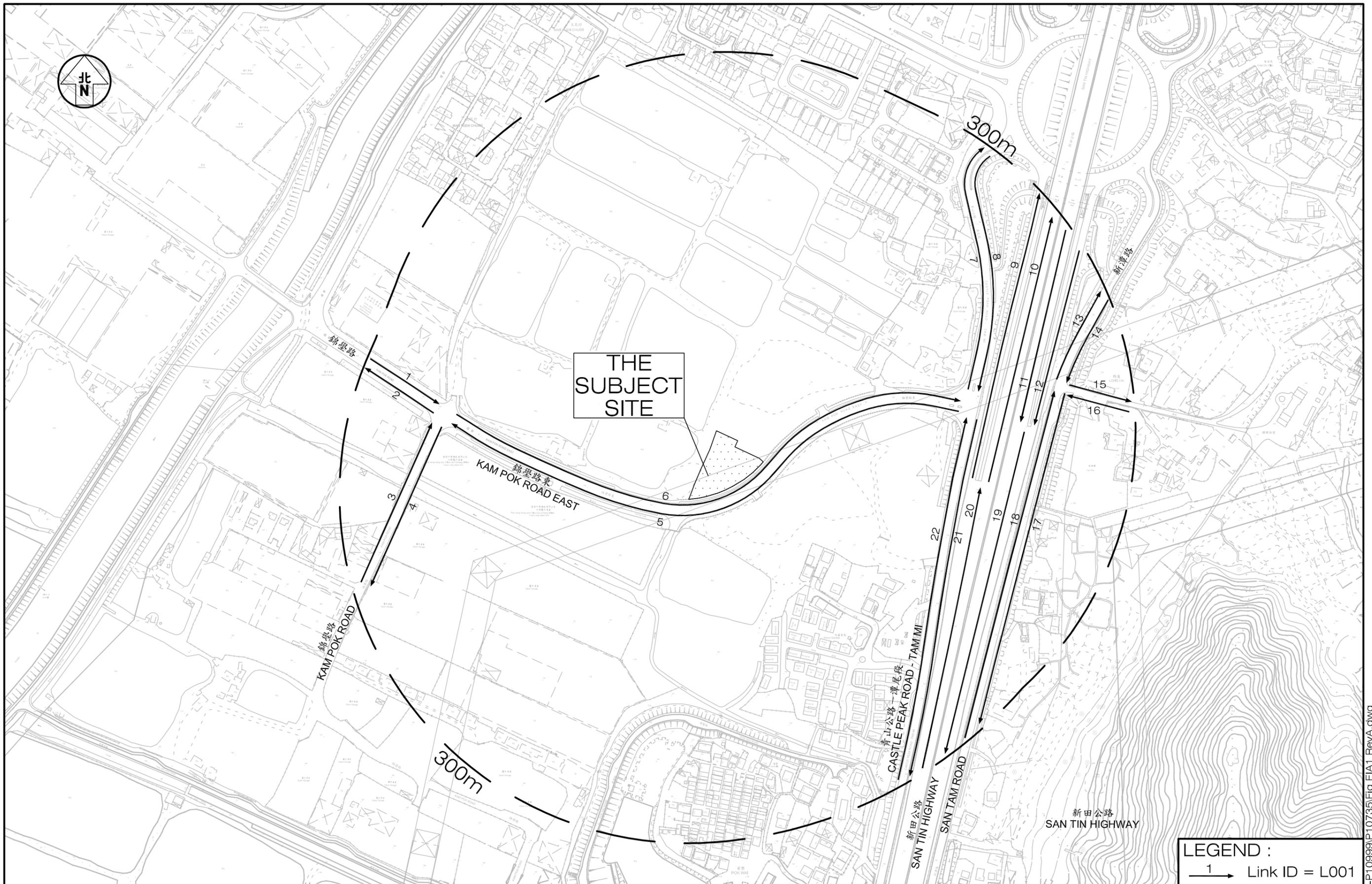
Thank you for your attention.

Regards,

Tommy Law  
CKM Asia Limited



# **APPENDIX 3.1 TRAFFIC FORECAST DATA**



LEGEND :  
 1 → Link ID = L001

Project: PROPOSED SOCIAL WELFARE FACILITIES (RCHE) IN "VILLAGE TYPE DEVELOPMENT" ZONE, LOTS 3670 RP (PART), 3671 RP (PART), 3672 RP (PART), 3673 RP (PART) AND ADJOINING GOVERNMENT LAND IN D.D.104, NAM SANG WAI, YUEN LONG

Figure Title: LOCATION OF TRAFFIC DATA

Figure No.	EIA1	Revision	A
Designed by	K C	Drawn by	C C L
Checked by	-	Date	26 MAY 2025
Scale in A3	1 : 3,000		

**CKM Asia Limited**  
 Traffic and Transportation Planning Consultants

T:\Proposal\10000-P10999\P10735\Fig EIA1 RevA.dwg

# YEAR 2045 TRAFFIC FORECAST

Date: 23 May 2025

Job No.: J7400 & J7401

Link ID	Road Section	From Road	To Road	Speed Limit (kph)	Road Classification	AM Peak Hour		
						Traffic Flows (veh/hr)	Vehicle Composition	
							LV	HV
L001	Kam Pok Road (EB)	Pok Wai South Road	Kam Pok Road East	50	RR	80	43%	57%
L002	Kam Pok Road (WB)	Kam Pok Road East	Pok Wai South Road	50	RR	130	42%	58%
L003	Kam Pok Road (NB)	Pok Wai West Road	Kam Pok Road East	50	RR	80	18%	82%
L004	Kam Pok Road (SB)	Kam Pok Road East	Pok Wai West Road	50	RR	70	48%	52%
L005	Kam Pok Road East (WB)	Castle Peak Road - Tam Mi	Kam Pok Road	50	RR	170	43%	57%
L006	Kam Pok Road East (EB)	Kam Pok Road	Castle Peak Road - Tam Mi	50	RR	140	27%	73%
L007	Castle Peak Road - Tam Mi (NB)	Kam Pok Road East	Fairview Park Interchange	50	RR	460	49%	51%
L008	Castle Peak Road - Tam Mi (SB)	Fairview Park Interchange	Kam Pok Road East	50	RR	290	51%	49%
L009	San Tin Highway (NB)	San Tin Highway	Fairview Park Interchange	100	DD	820	72%	28%
L010	San Tin Highway (NB)	San Tin Highway	San Tin Highway	100	PD	3,940	68%	32%
L011	San Tin Highway (SB)	San Tin Highway	San Tin Highway	100	PD	3,610	57%	43%
L012	San Tin Highway (SB)	Fairview Park Interchange	San Tin Highway	50	DD	1,130	75%	25%
L013	San Tam Road (NB)	Unnamed Road	Fairview Park Interchange	50	RR	340	62%	38%
L014	San Tam Road (SB)	Fairview Park Interchange	Unnamed Road	50	RR	700	68%	32%
L015	Unnamed Road (EB)	San Tam Road	Cul-de-sac	50	RR	10	75%	25%
L016	Unnamed Road (WB)	Cul-de-sac	San Tam Road	50	RR	10	80%	20%
L017	San Tam Road (SB)	Unnamed Road	Fung Kat Heung Road	50	RR	700	68%	32%
L018	San Tam Road (NB)	Fung Kat Heung Road	Unnamed Road	50	RR	330	62%	38%
L019	San Tin Highway (SB)	San Tin Highway	Yuen Long Highway	100	PD	4,740	61%	39%
L020	San Tin Highway (NB)	Yuen Long Highway	San Tin Highway	100	PD	4,760	69%	31%
L021	Castle Peak Road - Tam Mi (SB)	Kam Pok Road East	Access Road to Merry Garden	50	RR	160	62%	38%
L022	Castle Peak Road - Tam Mi (NB)	Access Road to Merry Garden	Kam Pok Road East	50	RR	370	57%	43%

Note: "LV" includes motorcycle, private car and taxi

"HV" includes light / medium / heavy goods vehicle, public / private light bus, non-franchised bus and franchised bus

PD – Primary Distributor

DD – District Distributor

LD – Local Distributor

RR – Rural Road

# YEAR 2045 TRAFFIC FORECAST

Date: 23 May 2025

Job No.: J7400 & J7401

Link ID	Road Section	From Road	To Road	Speed Limit (kph)	Road Classification	PM Peak Hour		
						Traffic Flows (veh/hr)	Vehicle Composition	
							LV	HV
L001	Kam Pok Road (EB)	Pok Wai South Road	Kam Pok Road East	50	RR	120	40%	60%
L002	Kam Pok Road (WB)	Kam Pok Road East	Pok Wai South Road	50	RR	100	39%	61%
L003	Kam Pok Road (NB)	Pok Wai West Road	Kam Pok Road East	50	RR	70	43%	57%
L004	Kam Pok Road (SB)	Kam Pok Road East	Pok Wai West Road	50	RR	70	20%	80%
L005	Kam Pok Road East (WB)	Castle Peak Road - Tam Mi	Kam Pok Road	50	RR	150	33%	67%
L006	Kam Pok Road East (EB)	Kam Pok Road	Castle Peak Road - Tam Mi	50	RR	170	42%	58%
L007	Castle Peak Road - Tam Mi (NB)	Kam Pok Road East	Fairview Park Interchange	50	RR	450	56%	44%
L008	Castle Peak Road - Tam Mi (SB)	Fairview Park Interchange	Kam Pok Road East	50	RR	270	51%	49%
L009	San Tin Highway (NB)	San Tin Highway	Fairview Park Interchange	100	DD	880	73%	27%
L010	San Tin Highway (NB)	San Tin Highway	San Tin Highway	100	PD	3,750	71%	29%
L011	San Tin Highway (SB)	San Tin Highway	San Tin Highway	100	PD	3,900	68%	32%
L012	San Tin Highway (SB)	Fairview Park Interchange	San Tin Highway	50	DD	680	76%	24%
L013	San Tam Road (NB)	Unnamed Road	Fairview Park Interchange	50	RR	330	67%	33%
L014	San Tam Road (SB)	Fairview Park Interchange	Unnamed Road	50	RR	700	66%	34%
L015	Unnamed Road (EB)	San Tam Road	Cul-de-sac	50	RR	10	100%	0%
L016	Unnamed Road (WB)	Cul-de-sac	San Tam Road	50	RR	10	100%	0%
L017	San Tam Road (SB)	Unnamed Road	Fung Kat Heung Road	50	RR	700	66%	34%
L018	San Tam Road (NB)	Fung Kat Heung Road	Unnamed Road	50	RR	330	67%	33%
L019	San Tin Highway (SB)	San Tin Highway	Yuen Long Highway	100	PD	4,570	69%	31%
L020	San Tin Highway (NB)	Yuen Long Highway	San Tin Highway	100	PD	4,630	71%	29%
L021	Castle Peak Road - Tam Mi (SB)	Kam Pok Road East	Access Road to Merry Garden	50	RR	160	62%	38%
L022	Castle Peak Road - Tam Mi (NB)	Access Road to Merry Garden	Kam Pok Road East	50	RR	340	59%	41%

Note: "LV" includes motorcycle, private car and taxi

"HV" includes light / medium / heavy goods vehicle, public / private light bus, non-franchised bus and franchised bus

PD – Primary Distributor

DD – District Distributor

LD – Local Distributor

RR – Rural Road

# **APPENDIX 3.2 TRAFFIC NOISE IMPACT ASSESSMENT RESULTS**

Predicted Road Traffic Noise Levels for 2045 (Mitigated Case Scenario)

Floor	NAP ID	Description	Floor Height, mPD	Assessment Height, mPD	Noise Criteria, dB(A)	Unmitigated Noise Level, L <sub>10</sub> (1 hour) <sup>1</sup> , dB(A)	Proposed Noise Mitigation Measures	Estimated Noise Attenuation, dB(A)	Mitigated Noise Level, L <sub>10</sub> (1 hour) <sup>1</sup> , dB(A)	Compliance
						AM				
G/F	GF_N01	Rehab Zone	+7.50	+8.7	70	68	N/A	N/A	68	Yes
	GF_N02	Multi-purpose Room			70	66	N/A	N/A	66	Yes
	GF_N03	Multi-purpose Room			70	66	N/A	N/A	66	Yes
	GF_N04	RCHE Dormitory			70	66	N/A	N/A	66	Yes
	GF_N05	RCHE Dormitory			70	65	N/A	N/A	65	Yes
	GF_N06	RCHE Dormitory			70	65	N/A	N/A	65	Yes
	GF_N07	RCHE Dormitory			70	65	N/A	N/A	65	Yes
	GF_N08	RCHE Dormitory			70	65	N/A	N/A	65	Yes
	GF_N09	RCHE Dormitory			70	64	N/A	N/A	64	Yes
	GF_N10	RCHE Dormitory			70	64	N/A	N/A	64	Yes
	GF_N11	RCHE Dormitory			70	64	N/A	N/A	64	Yes
	GF_N12	RCHE Dormitory			70	64	N/A	N/A	64	Yes
	GF_N13	RCHE Dormitory			70	64	N/A	N/A	64	Yes
	GF_N14	RCHE Dormitory			70	63	N/A	N/A	63	Yes
	GF_N15	RCHE Dormitory			70	64	N/A	N/A	64	Yes
1/F	1F_N01	Dining Area	+12.00	+13.2	70	75	Type 2	7	68	Yes
	1F_N03	Multi-purpose Room			70	73	Type 2	7	66	Yes
	1F_N04	Multi-purpose Room			70	73	Type 2	7	66	Yes
	1F_N05	Multi-purpose Room			70	72	Type 2	7	65	Yes
	1F_N06	End-of-Life Room			70	74	Type 2	7	67	Yes
	1F_N07	Isolation Room			70	75	Type 2	7	68	Yes
	1F_N08	Sick Bay			70	75	Type 2	7	68	Yes
	1F_N09	RCHE Dormitory			70	67	N/A	N/A	67	Yes
	1F_N10	RCHE Dormitory			70	66	N/A	N/A	66	Yes
	1F_N11	RCHE Dormitory			70	66	N/A	N/A	66	Yes
	1F_N12	RCHE Dormitory			70	66	N/A	N/A	66	Yes
	1F_N13	RCHE Dormitory			70	66	N/A	N/A	66	Yes
	1F_N14	RCHE Dormitory			70	65	N/A	N/A	65	Yes
	1F_N15	RCHE Dormitory			70	65	N/A	N/A	65	Yes
	1F_N16	RCHE Dormitory			70	65	N/A	N/A	65	Yes
	1F_N17	RCHE Dormitory			70	65	N/A	N/A	65	Yes
	1F_N18	RCHE Dormitory			70	64	N/A	N/A	64	Yes
	1F_N19	RCHE Dormitory			70	64	N/A	N/A	64	Yes
	1F_N20	RCHE Dormitory			70	64	N/A	N/A	64	Yes
	1F_N21	RCHE Dormitory			70	64	N/A	N/A	64	Yes
	1F_N22	RCHE Dormitory			70	64	N/A	N/A	64	Yes
	1F_N23	RCHE Dormitory			70	63	N/A	N/A	63	Yes
	1F_N24	RCHE Dormitory			70	65	N/A	N/A	65	Yes
	2/F	2F_N01			RCHE Dormitory	+16.00	+17.2	70	77	Type 2
2F_N02		RCHE Dormitory	70	77	Type 2			7	70	Yes
2F_N03		RCHE Dormitory	70	76	Type 2			7	69	Yes
2F_N04		RCHE Dormitory	70	77	Type 2			7	70	Yes
2F_N05		RCHE Dormitory	70	75	Type 2			7	68	Yes
2F_N06		RCHE Dormitory	70	77	Type 2			7	70	Yes
2F_N07		RCHE Dormitory	70	75	Type 2			7	68	Yes
2F_N08		RCHE Dormitory	70	77	Type 2			7	70	Yes
2F_N09		RCHE Dormitory	70	74	Type 2			7	67	Yes
2F_N10		RCHE Dormitory	70	77	Type 2			7	70	Yes
2F_N14		RCHE Dormitory	70	67	N/A			N/A	67	Yes
2F_N15		RCHE Dormitory	70	67	N/A			N/A	67	Yes
2F_N16		RCHE Dormitory	70	67	N/A			N/A	67	Yes
2F_N17		RCHE Dormitory	70	66	N/A			N/A	66	Yes
2F_N18		RCHE Dormitory	70	66	N/A			N/A	66	Yes
2F_N19		RCHE Dormitory	70	66	N/A			N/A	66	Yes
2F_N20		RCHE Dormitory	70	66	N/A			N/A	66	Yes
2F_N21		RCHE Dormitory	70	65	N/A			N/A	65	Yes
2F_N22		RCHE Dormitory	70	65	N/A			N/A	65	Yes
2F_N23		RCHE Dormitory	70	65	N/A			N/A	65	Yes
2F_N24		RCHE Dormitory	70	65	N/A			N/A	65	Yes
2F_N25		RCHE Dormitory	70	65	N/A			N/A	65	Yes
2F_N26		RCHE Dormitory	70	64	N/A			N/A	64	Yes
2F_N27		RCHE Dormitory	70	64	N/A			N/A	64	Yes
2F_N28		RCHE Dormitory	70	64	N/A			N/A	64	Yes
2F_N29		RCHE Dormitory	70	66	N/A			N/A	66	Yes

Results Summary	
Total No. of NAPs	68
Total No. of NAPs with exceedance	0
Compliance Rate	100%

## **APPENDIX 3.3 FIXED NOISE SITE SURVEY RECORD**

Title:

Inventory of Major Fixed Noise Sources

Source Location	Source Description	Source ID	Avg. Measured SPL, dB(A)	Measurement Dist. from Source (d), m	Distance Correction, dB(A)	SWL adopted in Fixed Noise Assessment, dB(A)	Remarks
祥發五金貿易有限公司	Open Storage	S01	65.8	15	31.5	97.3	
Hung Kee Metal Recycling Int'l Ltd.	Open Storage	S02	-	-	-	97.3	No operation was observed during site survey. SWL reference to S01
Dorfield Ltd.	Open Storage	S03	68.9	7	24.9	93.8	

# Site Survey Record (conducted 23 July 2025 14:00 – 17:00)



Photo 1: 祥發五金貿易有限公司 (S01)



Photo 2: Hung Kee Metal Recycling Int'l Ltd. (S02)



Photo 3: Dorfield Ltd. (S03)

# **APPENDIX 3.4 DETAILED CALCULATION FOR FIXED NOISE IMPACT ASSESSMENT**

Project:	Proposed Residential Care Home for the Elderly (RCHE) in Nam Sang Wai, Yuen Long
Title:	Assessment for Noise from Fixed Sources
Subtitle:	Calculation of SPL at Assessment Points
NSR ID:	2F_N01
NSR x coord:	823476.7
NSR y coord:	836538.3
NSR floor (/F)	2
NSR height (mPD)	17.2
ASR	B

Noise Source ID	Description	Activities/Equipment	Operation		SWL, dB(A)		Horizontal Distance from NSR, m	Correction, dB(A)			Day-time Corrected Noise Level, Leq dB(A)	Night-time Corrected Noise Level, Leq dB(A)	Remark
			Daytime	Night-time	Daytime	Night-time		Distance	Barrier	Façade			
S01	祥發五金貿易有限公司	Lorry Crane	Y	Y	97.3	97.3	172	-53	0	3	48	48	Night time operation is assumed as worst case scenario
S02	Hung Kee Metal Recycling Int'l Ltd.	Lorry Crane	Y	Y	97.3	97.3	200	-54	0	3	46	46	
S03	Dorfield Ltd.	Fork Lift	Y	Y	93.8	93.8	234	-55	0	3	41	41	
<b>Total SPL</b>											51	51	
<b>Criteria ANL</b>											65	55	
<b>Exceedance</b>											-	-	

# **APPENDIX 3.5 MODIFICATION PLAN OF EXISTING NOISE BARRIER**

12. Please provide a plan showing the pedestrian routing to the nearby franchised bus stop (both Yuen Long and Sheung Shui bound). Please specify the corresponding walking distance as well;	Noted. Please refer to Figure 2.7 in the revised TIA for the pedestrian route to the nearby franchised bus stops.
13. Para. 4.8: traffic trips specified here does not tally with the number in Table 4.4.;	Noted. Please refer to section 4.8 in revised TIA
14. Appendix 2: please specify the vehicular dimension (i.e. length and width) and driving speed adopted in the swept path analysis. Please adopt the largest possible vehicle that would enter the subject site in the swept path analysis;	Noted. Please refer to the Appendix 2 in the revised TIA.
15. Please provide a plan to demonstrate sufficient sightline could be maintained at the proposed site access;	The measured length of visibility splay for the motorists leaving the Proposed RCHD is 60m to the left and 60m to the right, which is illustrated in Figure 3.3 in the revised TIA.
16. There are noise barriers positioned at the proposed site access. Please provide details on the site access arrangement;	Portion of the existing noise barriers and related street furniture (planter) will be demolished for the proposed site access. Please refer to Appendix 3 for the proposed alterations.
17. From the planning statement, noted there is a separate planning application by the same applicant at the adjoining site for an RCHE. Please explore the feasibility of having a shared site access for the RCHD and RCHE site as well as the car ramp to the basement carpark; and	Please note that the proposed RCHD and RCHE are structurally independent and self-contained. Site access and car ramp to the basement carpark will not be shared.
18. Noted only two loading/ unloading spaces are provided in the subject site and given the loading/unloading activities for persons with disabilities would take extra time, please critically review the site layout to ensure the loading/unloading activities would not block the site entrance or causing queuing back problem.	Based on survey of RCHDs with similar characteristics, it is expected there are no more than 2 goods deliveries a day and these vehicles stay for less than 20 minutes. If required by Transport Department, the Applicant is willing to arrange for goods delivery to be conducted during the non-peak hours and for these deliveries not to be conducted concurrently.

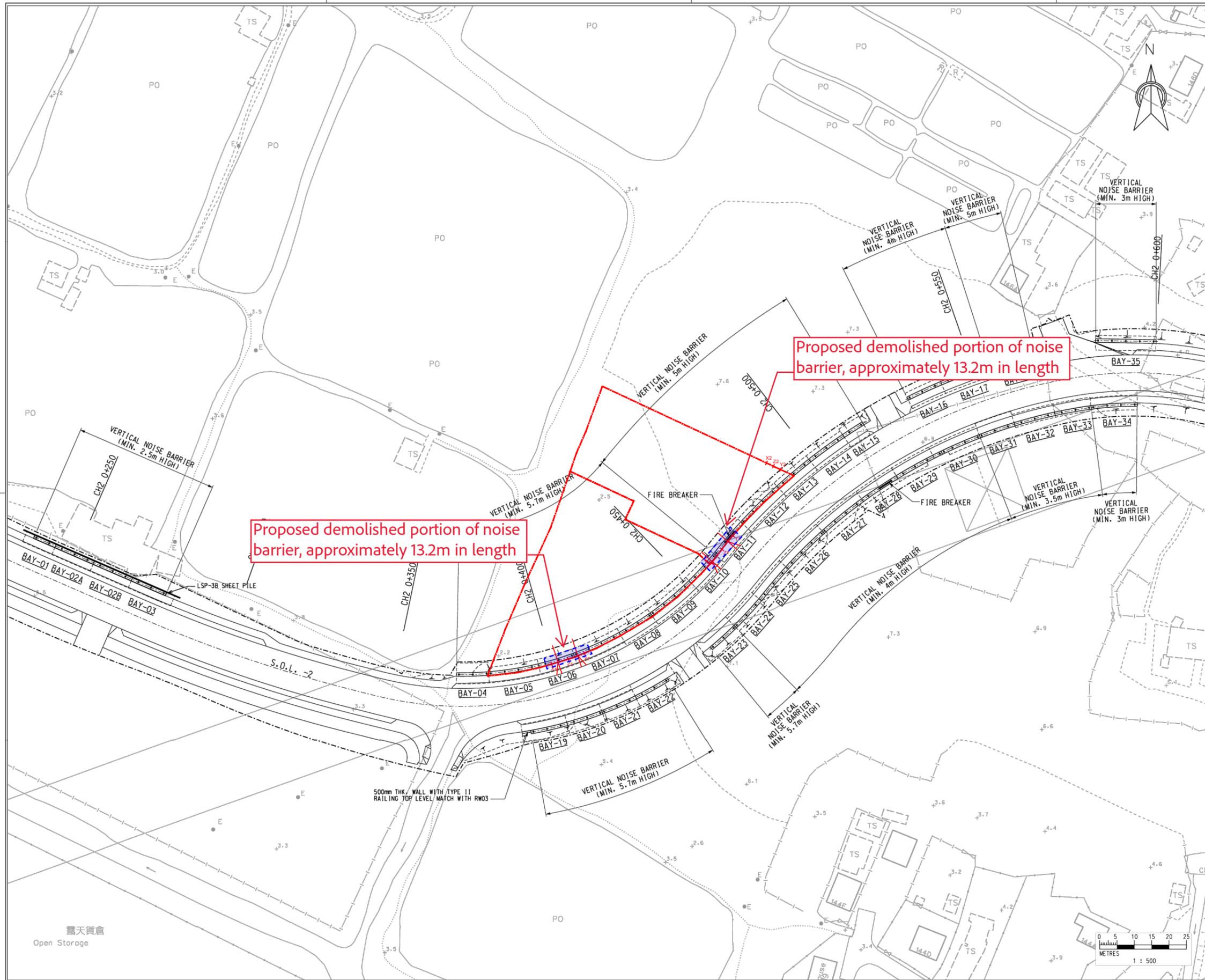
**Email dated 4<sup>th</sup> July 2025 refers:**

**Comments of the Chief Highway Engineer/New Territories West, Highways Department:**

1. The applicant should ensure the run-in/out at Kam Pok Road East is constructed in accordance with the latest version of HyD Standard Drawings no. H1113 and H1114, or H5133, H5134 and H5135, whichever set if appropriate to match with the existing adjacent pavement;	Noted.
2. It is noted that there are existing noise barriers under HyD's maintenance purview at the south-east boundary of the site, adjoining Kam Pok Road East. Please advise if there are any modification or alteration of the noise barriers among other road features (e.g. the existing footpath/ carriageway adjoining the site) be required arising from the proposed development.	Please refer to Appendix 3 for the Modification Plans of Noise Barrier and Street Furniture.

## **Appendix 3**

### Modification Plans of Noise Barrier and Street Furniture



**NOTES :**  
 1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED.  
 2. ALL LEVELS ARE IN MPD (METRE ABOVE HONG KONG PRINCIPAL DATUM).

**LEGEND :**  
 [Symbol] SITE BOUNDARY  
 [Symbol] NOISE BARRIER  
 [Symbol] FIRE BREAKER  
 [Symbol] LSP-3B SHEET PILE



Proposed demolished portion of noise barrier, approximately 13.2m in length

Proposed demolished portion of noise barrier, approximately 13.2m in length

Rev.	Description of Revision	Date	Ckd.
Z	AS BUILT	OCT 13	SIGNED
E	SHEET PILE ADDED	DEC 12	SIGNED
D	GENERAL REVISION	JUN 12	SIGNED
C	GENERAL REVISION	JAN 12	SIGNED
B	GENERAL REVISION	JAN 12	SIGNED
A	GENERAL REVISION	NOV 11	JM

Client  
 路政署 (工程部)  
 HIGHWAYS DEPARTMENT  
 WORKS DIVISION

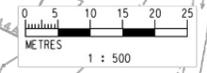
Consultants  
**MANNINGS**  
 (Asia) Consultants Limited

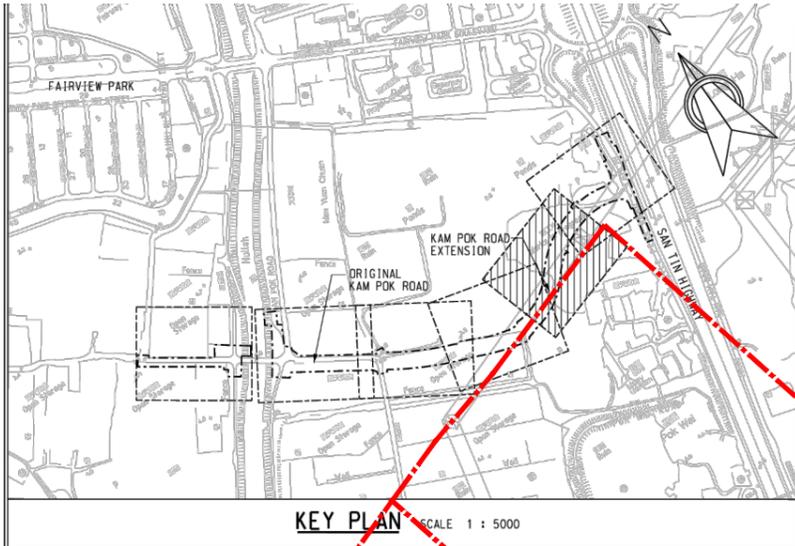
Scale in A1 1 : 500	Date DEC 2010	
Designed FT	Drawn TWN	Checked JM
Design Team Leader SNG	Date DEC 2010	
Approved KTC	Date DEC 2010	

Project  
 Contract No. HY/2010/09  
 Improvement and Extension of  
 Kam Pok Road

Title  
 NOISE BARRIER  
 LAYOUT PLAN

Drawing No. D1199/KP/NB/011	Stage Z	Rev. Z
--------------------------------	------------	-----------





KEY	BOTANICAL NAME	CHINESE NAME	SIZE (HT x SPD)	SPACING	TOTAL QUANTITY	REMARKS
<b>GROUNDCOVERS:</b>						
Adu	Arachis duranensis	蔓花生	100 x 150	100 o.c.	45063	-
Oj	Ophiopogon japonicus	山麥冬	200 x 200	150 o.c.	30042	-
<b>SHRUBS:</b>						
Is	Ixora stricta	細葉紅花 龍船花	300 x 400	400 o.c.	400	-
Ch	Calliandra haematocephala	紅絨球	600 x 450	400 o.c.	3605	flowering, shaped to form
Jc	Juniperus chinensis	洋白柏	1500 x 600	2000 o.c.	169	-

- NOTES :**
- ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED.
  - ALL LEVELS ARE IN MPD (METRE ABOVE HONG KONG PRINCIPAL DATUM).
  - ALL DRAWINGS SHALL BE READ IN CONJUNCTION WITH THE SPECIFICATION FOR LANDSCAPE AND ALL RELEVANT DRAWINGS AND SPECIFICATIONS.
  - ALL PLANTS TO BE TRUE TO SPECIES; PLANTS TO BE HEALTHY AND WITH THE HABIT AND SIZE OF THE PLANT SPECIFIED. PLANTS TO BE FREE FROM PESTS, DISEASE, PARASITES, DISCOLORATION AND DAMAGE AND SHALL HAVE A VIGOROUS FIBROUS ROOT SYSTEM WITH WELL DEVELOPED SHAPE FOR THE SPECIES AS SPECIFIED.
  - ALL PLANTS AND TREES SHALL BE PLANTED ON GRADE AND OPEN-BOTTOM PLANTERS. TREE LOCATIONS SHALL BE REFERRED TO RELEVANT APPROVED TREE REMOVAL APPLICATION.
  - SOIL LEVEL SHALL BE LOWERED BY 50MM FROM THE FINISHED LEVEL AND SLIGHTLY MOUND TO CENTRE.
  - SOIL MIX TO BE BACKFILLED TO A DEPTH OF 600MM WHERE SHRUB AND GROUND COVER PLANTINGS SHALL BE LOCATED AND 1200MM WHERE TREES SHALL BE LOCATED.
  - ORIGINAL SUB-SOIL SHALL BE BROKEN UP TO FACILITATE NATURAL DRAINAGE.

- LEGEND :**
- SITE BOUNDARY
  - C/W CARRIAGEWAY
  - F/P FOOTPATH
  - C/T CYCLE TRACK
  - RUN-IN
  - VERTICAL NOISE BARRIER
  - RETAINING WALL
  - PEDESTRIAN CROSSING
  - PLANTING
  - TRANSPLANTED TREES
  - COMPENSATORY TREES
  - ⊗ WATER POINT @ 40M INTERVAL

Z	AS BUILT	APR 15	SIGNED
A	GENERAL REVISION	AUG 13	SIGNED
Rev.	Description of Revision	Date	Ckd.

Client  
 路政署 (工程部)  
 HIGHWAYS DEPARTMENT  
 WORKS DIVISION

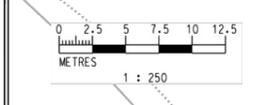
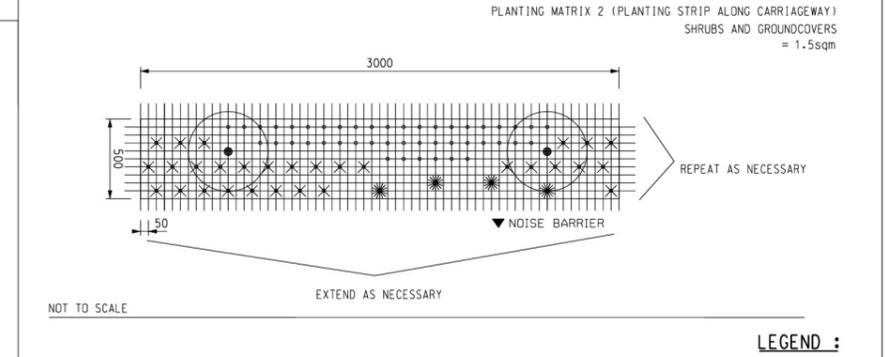
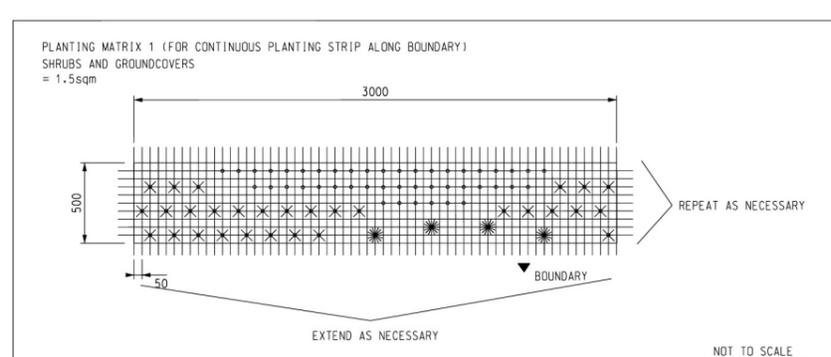
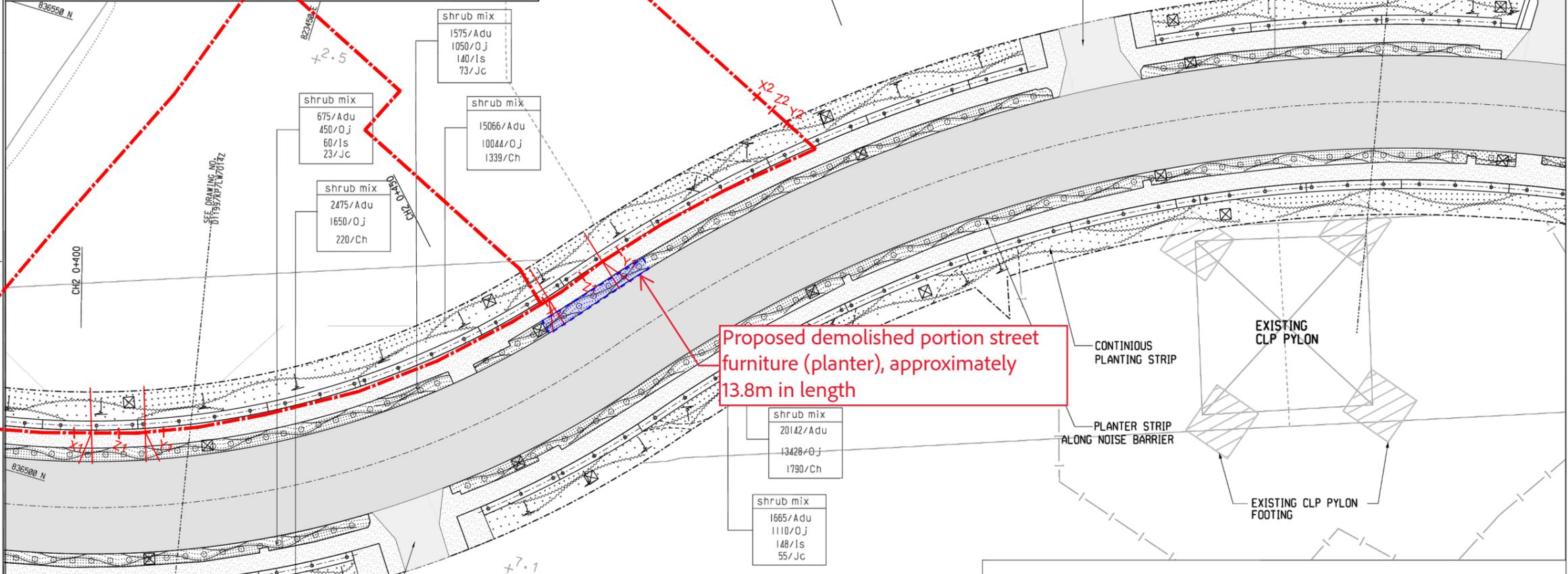
Consultants  
**MANNINGS**  
 (Asia) Consultants Limited

Scale In At	Date	
1 : 250	FEB 2011	
Designed GK	Drawn SAN	Checked JM
Design Team Leader	Date	FEB 2011
Approved KTC	Date	FEB 2011

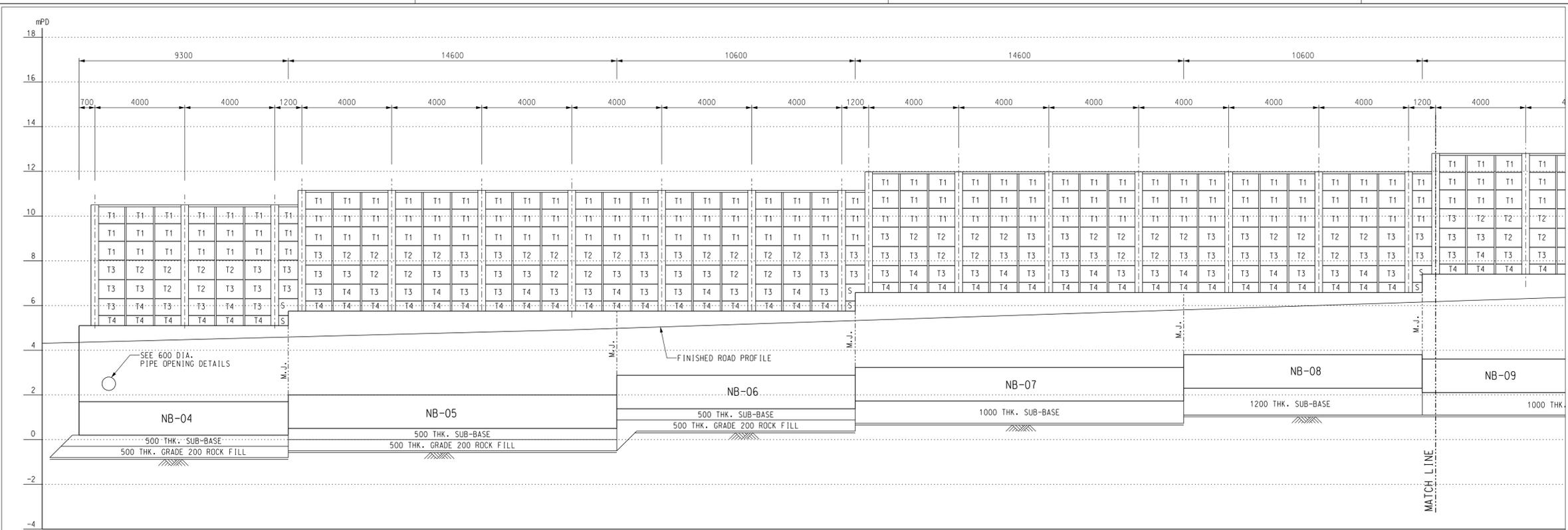
Project  
**Contract No. HY/2010/09**  
**Improvement and Extension of Kam Pok Road**

Title  
**LANDSCAPE LAYOUT PLAN**

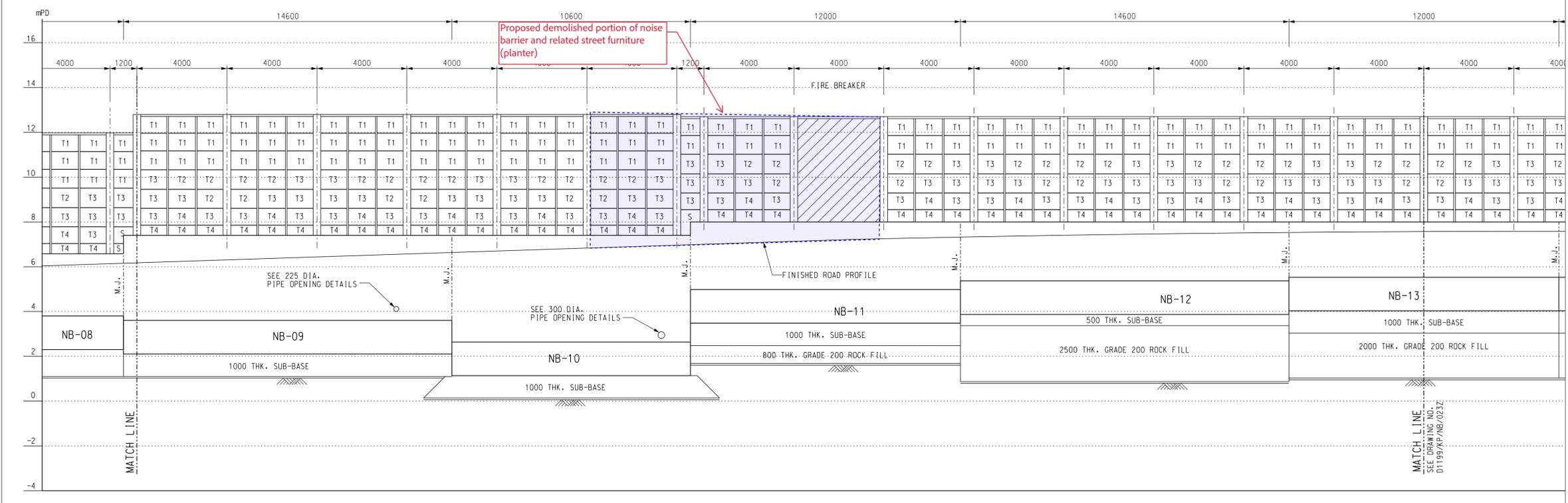
Drawing No.	Stage	Rev.
D1199/KP/LW/015		Z



- LEGEND :**
- ARACHIS DURANENSIS (APPROX. 45NDS.)
  - OPHIOPOGON JAPONICUS (APPROX. 30NDS.)
  - IXORA STRICTA (APPROX. 4NDS.)
  - JUNIPERUS CHINENSIS (APPROX. 2NDS. ; PLANTED IN SINGLE ROW IRRELEVANT OF PLANTER WIDTH)



ELEVATION FROM NB-04 TO NB-15



ELEVATION FROM NB-04 TO NB-15

- NOTES :**
- FOR NOTES & LEGEND REFER TO DRAWING NO. D1199/KP/NB/021Z.
  - FOR ALL PIPE OPENING DETAILS REFER TO DRAWING NO. D1199/KP/NB/018Z.
  - ALL PIPES ARE SHOWN FOR INDICATIVE ONLY.

Rev.	AS BUILT	OCT 13	SIGNED M.S. FONG RE/NT1-53
Rev.	Description of Revision	Date	Ckd.

Client  
 路政署 (工程部)  
 HIGHWAYS DEPARTMENT  
 WORKS DIVISION

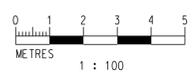
Consultants  
**MANNINGS**  
 (Asia) Consultants Limited

Scale in A1 1 : 100	Date DEC 2010	
Designed GK	Drawn TWN	Checked JM
Design Team Leader SNG	Date DEC 2010	
Approved KTC	Date DEC 2010	

Project  
 Contract No. HY/2010/09  
 Improvement and Extension of  
 Kam Pok Road

Title  
 NOISE BARRIER  
 ELEVATIONS

Drawing No. D1199/KP/NB/022	Stage	Rev. Z
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# **APPENDIX 6.1**

## **ENQUIRIES TO GOVERNMENTAL AUTHORITY**

本署檔案  
OUR REF :  
來函檔案  
YOUR REF : W25185/RCHE-0002  
電話  
TEL NO : 3162 8418  
圖文傳真  
FAX NO : 3162 8584  
網址  
HOMEPAGE : <http://www.epd.gov.hk/>

**Environmental Protection Department**  
**Environmental Compliance Division**  
**Regional Office (North)**  
10/F., Shatin Government Offices,  
1 Sheung Wo Che Road,  
Sha Tin, New Territories,  
Hong Kong.

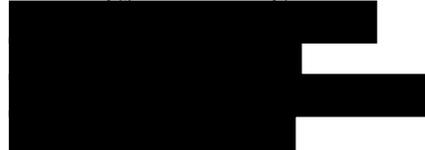


環境保護署  
環保法規管理科  
區域辦事處(北)  
香港新界沙田  
上禾輦路一號  
沙田政府合署 10 樓

By email only ( [REDACTED] )

3 July 2025

BeeXergy Consulting Limited



(Attn: Mr. Leo YU)

Dear Mr. YU,

**Proposed Social Welfare Facilities (Residential Care Home for the Elderly (RCHE)) in  
“Village Type Development” Zone, Various Lots in D.D. 104 and Adjoining Government  
Land, Nam Sang Wai, Yuen Long**

**RE: Request for Information of Registered Chemical Waste Producer Records and Historical  
Records of Chemical Spillage / Leakage**

Regarding your enquiries in the letter under reference dated 30 June 2025, this Regional Office has no record of spillage or leakage of chemicals within the site boundary in the past ten years.

Concerning the records of registered chemical waste producers, a register of chemical waste producers is available for inspection in the Territorial Control Office of the department. If you would like to inspect, please contact Mr. Tim H. T. CHAN at 2835 1017 for making an appointment to view the records.

Should you have any query on the matter, please contact the undersigned at 3162 8418.

Yours sincerely,

(Ken NG)

For Director of Environmental Protection

---

**Re: Request for Information of Registered Dangerous Goods Records and Historical Records of Chemical Spillage / Leakage**

---

From ado\_lea\_cs@hkfsd.gov.hk <ado\_lea\_cs@hkfsd.gov.hk>

Date Thu 7/24/2025 12:12 PM

To Leo Yu <[REDACTED]>

Cc OE8 CS/FSD <oe\_cs\_8@hkfsd.gov.hk>

*Our reference: (19) in FSD GR 6-5/4 R Pt. 59*

*Your reference: W25185/RCHE-0001, W25185/RCHD-0001*

Dear Mr. YU,

**Proposed Social Welfare Facilities (Residential Care Home for the Elderly (RCHE) and Residential Care Home for Persons with Disabilities (RCHD)) in “Village Type Development” Zone, Various Lots in D.D. 104 and Adjoining Government Land, Nam Sang Wai, Yuen Long**  
**Request for Information of Dangerous Goods & Incident Records**

I refer to your email of 27.6.2025 regarding the captioned request and reply below in response to your questions:-

Please be advised that neither records of dangerous goods license, fire incidents nor incidents of spillage / leakage of dangerous goods were found in connection with the given conditions of your request at the subject location.

If you have further questions, please feel free to contact the undersigned.

Best regards,

TSANG Chun-hei Jason  
Assistant Divisional Officer (Legal Affairs) (Acting)  
Corporate Services Division  
Fire Services Department

Tel.: 2733 7896

Remark:

Lift incidents are excluded unless otherwise required.

Disclaimer:

\*Fire Services Department uses its best endeavor to ensure the accuracy and reliability of the information provided, but cannot guarantee its accuracy and reliability and accepts no liability of any nature for any loss or damage arising from any inaccuracies or omissions that may from the information provided.

---

**From:** Leo Yu <[REDACTED]>

**Sent:** Friday, July 4, 2025 16:01

**To:** ADO LEA CS/FSD

**Cc:** OE8 CS/FSD

**Subject:** Re: Fw: Request for Information of Registered Dangerous Goods Records and Historical Records of Chemical Spillage / Leakage

Dear Mr. Chow,

Thank you for the prompt response. Please find enclosed the appointment letters for your record as requested.

Best regards,

**Leo Yu**

*BeeXergy Consulting Limited* | [REDACTED]  
[REDACTED]  
[REDACTED]

---

Virus-

free.[www.avast.com](http://www.avast.com)

On Fri, 4 Jul 2025 at 08:29, <[ado\\_lea\\_cs@hkfsd.gov.hk](mailto:ado_lea_cs@hkfsd.gov.hk)> wrote:

*Our reference: (19) in FSD GR 6-5/4 R Pt. 59*

*Your reference: W25185/RCHE-0001, W25185/RCHD-0001*

Dear Mr. YU,

**Proposed Social Welfare Facilities (Residential Care Home for the Elderly (RCHE) and Residential Care Home for Persons with Disabilities (RCHD)) in "Village Type Development" Zone, Various Lots in D.D. 104 and Adjoining Government Land, Nam Sang Wai, Yuen Long**  
**Request for Information of Dangerous Goods & Incident Records**

I refer to your email on 27.6.2025 regarding the captioned subject.

Your case is being handled, and a reply will be furnished to you as soon as possible. Please be advised that due to time lapse, this Department can only provide the following information for your requested information:

- (i) Dangerous Goods Licence Record: from the year of 1990 to present moment.
- (ii) Incident Record: Past three years of fire and special services incidents. Lift incidents will be excluded unless otherwise required.

**Please also submit the appointment letter from your client for record.**

Should you have further questions, please feel free to contact the undersigned.

Best regards,

CHOW Yin-hei  
Assistant Divisional Officer (Legal Affairs)  
Corporate Services Division  
Fire Services Department

Tel.: 2733 7896

---

From: "Leo Yu" <[REDACTED]>  
To: [hkfsdenq@hkfsd.gov.hk](mailto:hkfsdenq@hkfsd.gov.hk)  
Date: 27/06/2025 17:42  
Subject: Request for Information of Registered Dangerous Goods Records and Historical Records of Chemical Spillage / Leakage

---

Dear Sir/Madam,

We are commissioned to conduct Environmental Assessment to support the Planning Application No. A/YL-NSW/348 and A/YL-NSW/349 at Kam Pok Road East.

We would like to request information for our assessment, please find enclosed the cover letter for your follow up. Thank you.

Please contact the undersigned if you have any queries.

Best regards,  
**Leo Yu**

*BeeXergy Consulting Limited* | [REDACTED]

[REDACTED]  
[REDACTED] [attachment "RCHE-0001 Letter\_FSD.pdf" deleted by yin\_hei CHOW/FSD/HKSARG] [attachment "RCHD-0001 Letter\_FSD.pdf" deleted by yin\_hei CHOW/FSD/HKSARG]

## **APPENDIX 6.2 SITE WALKOVER CHECKLIST**

## Site Walkover Checklist (24 July 2025)

### GENERAL SITE DETAILS

SITE OWNER/CLIENT Right Top Limited

PROPERTY ADDRESS Various lots in D.D. 104 and adjoining government land, Nam Sang Wai, Yuen Long

### PERSON CONDUCTING THE QUESTIONNAIRE

NAME Leo Yu

POSITION Consultant (Beexergy Consulting Limited)

### AUTHORIZED OWNER/CLIENT REPRESENTATIVE (IF APPLICABLE)

NAME Law Yau Hung

POSITION Director

TELEPHONE ██████████

### SITE ACTIVITIES

Briefly describe activities carried out on site, including types of products/chemicals/materials handled.

**Obtain a flow schematic if possible.**

Number of employees: Full-time: Not applicable

Part-time: Not applicable

Temporary/Seasonal: Not applicable

Maximum no. of people on site at any time: Not applicable

Typical hours of operation: Not applicable

Number of shifts: Not applicable

Days per week: Not applicable

Weeks per year: Not applicable

Scheduled plant shut-down: Not applicable

Detail the main sources of energy at the site:

Gas	Yes/No
Electricity	Yes/No
Coal	Yes/No
Oil	Yes/No
Other	Yes/No

### **SITE DESCRIPTION**

This section is intended to gather information on site setting and environmental receptors on, adjacent or close to the site.

What is the total site area: Approximately 1,845sqm

What area of the site is covered by buildings (%): 0

Please list all current and previous owners/occupiers if possible. Right Top Limited

---

Is a site plan available? If yes, please attach. Yes/No

Are there any other parties on site as tenants or sub-tenants? Yes/No

If yes, identify those parties: \_\_\_\_\_

Describe surrounding land use (residential, industrial, rural, etc.) and identify neighbouring facilities and types of industry.

North: Residential development

---

South: Kam Pok Road East and temporary storage

---

East: Kam Pok Road East and temporary storage

---

West: Ponds (to be redevelop as residential development according to A/YL-NSW/314)

---

Describe the topography of the area (flat terrain, rolling hills, mountains, by a large body of water, vegetation, etc.).

The site is a flat terrain in general.

State the size and location of the nearest residential communities.

The proposed residential development at the north and west is around 3 to 5 storeys.

Are there any sensitive habitats nearby, such as nature reserves, parks, wetlands or sites of special scientific interest?

Ponds is found at the west, to be redevelop as residential development according to A/YL-NSW/314.

### **Questionnaire with Existing/Previous Site Owner or Occupier**

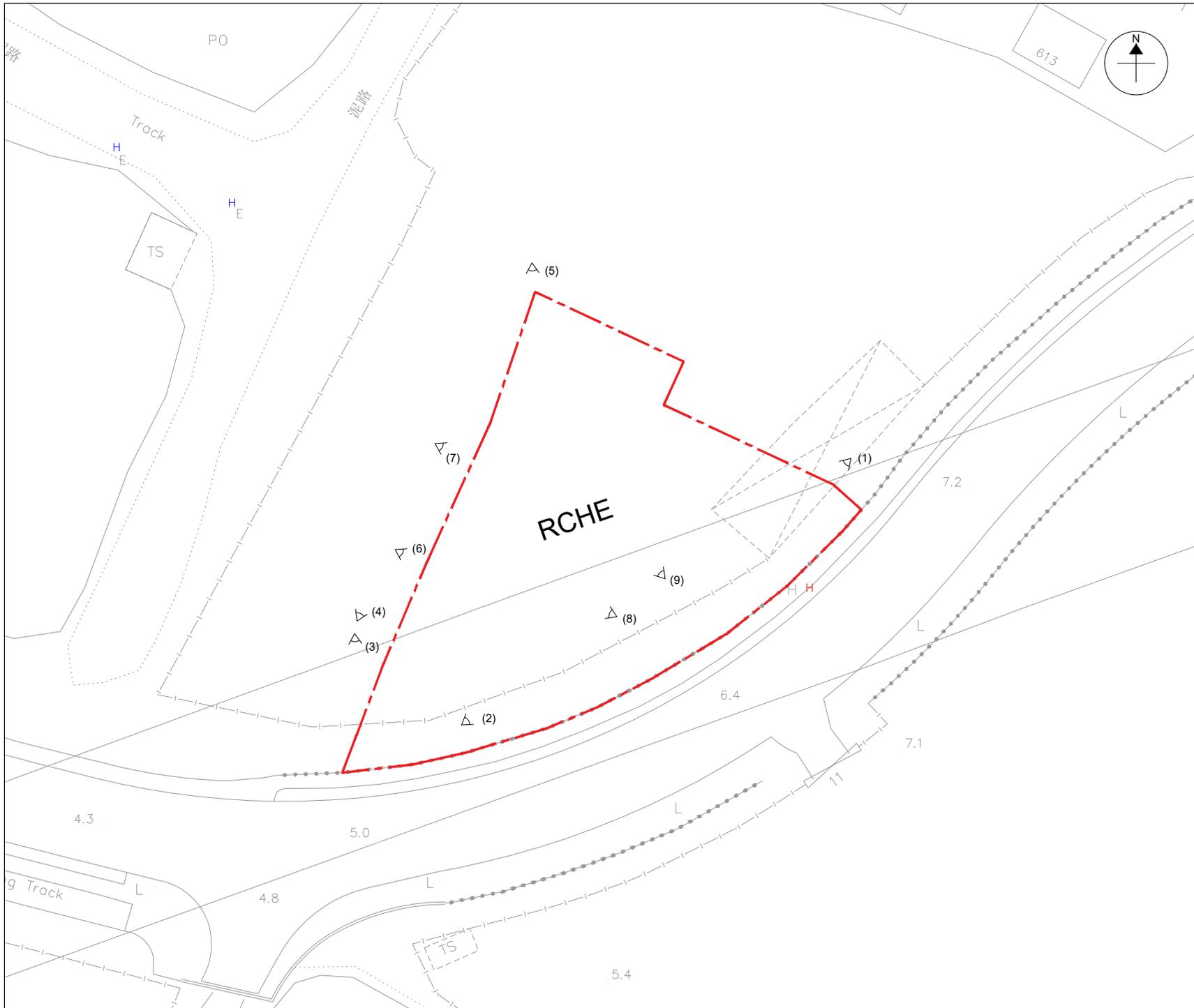
Ref.		Yes/No	Notes
1.	What are the main activities/operations at the above address?	No	
2.	How long have you been occupying the site?	No	
3.	Were you the first occupant on site? (If yes, what was the usage of the site prior to occupancy?)	No	
4.	Prior to your occupancy, who occupied the site?	No	
5.	What were the main activities/operations during their occupancy?	No	
6.	Have there been any major changes in operations carried out at the site in the last 10 years?	No	
7.	Have any polluting activities been carried out in the vicinity of the site in the past?	-	
8.	To the best of your knowledge, has the site ever been used as a petrol filling station/car service garage?	-	
9.	Are there any boreholes/wells or natural springs either on the site or in the surrounding area?	-	
10.	Do you have any registered hazardous installations as defined under relevant ordinances? (If yes, please provide details.)	No	
11.	Are any chemicals used in your daily operations? (If yes, please provide details.)	No	
	• Where do you store these chemicals?	-	Not applicable
12.	Material inventory lists, including quantities and locations available? (If yes, how often are these inventories updated?)	-	Not applicable
13.	Has the facility produced a separate hazardous substance inventory?	No	
14.	Have there ever been any incidents or accidents (e.g. spills, fires, injuries, etc.) involving any of these materials? (If yes, please provide details.)	No	
15.	How are materials received (e.g. rail, truck, etc.) and stored on site (e.g. drums, tanks, carboys, bags, silos, cisterns,	No	

	vaults and cylinders)?		
16.	Do you have any underground storage tanks? (If yes, please provide details.)	No	
	<ul style="list-style-type: none"> <li>▪ How many underground storage tanks do you have on site?</li> </ul>	No	
	<ul style="list-style-type: none"> <li>▪ What are the tanks constructed of?</li> </ul>	No	
	<ul style="list-style-type: none"> <li>▪ What are the contents of these tanks?</li> </ul>	No	
	<ul style="list-style-type: none"> <li>▪ Are the pipelines above or below ground?</li> </ul>	No	
	<ul style="list-style-type: none"> <li>▪ If the pipelines are below ground, has any leak and integrity testing been performed?</li> </ul>	No	
	<ul style="list-style-type: none"> <li>▪ Have there been any spills associated with these tanks?</li> </ul>	No	
17.	Are there any disused underground storage tanks?	No	
18.	Do you have regular check for any spillage and monitoring of chemicals handled? (If yes, please provide details.)	-	Not applicable
19.	How are the wastes disposed of?	-	Not applicable
20.	Have you ever received any notices of violation of environmental regulations or received public complaints? (If yes, please provide details.)	No	
21.	Have any spills occurred on site? (If yes, please provide details.)	No	
	<ul style="list-style-type: none"> <li>• When did the spill occur?</li> </ul>	-	
	<ul style="list-style-type: none"> <li>• What were the substances spilled?</li> </ul>	-	
	<ul style="list-style-type: none"> <li>• What was the quantity of material spilled?</li> </ul>	-	
	<ul style="list-style-type: none"> <li>• Did you notify the relevant departments of the spill?</li> </ul>	-	
	<ul style="list-style-type: none"> <li>• What were the actions taken to clean up the spill?</li> </ul>	-	
	<ul style="list-style-type: none"> <li>• What were the areas affected?</li> </ul>	-	
22.	Do you have any records of major renovation of your site or rearrangement of underground utilities, pipe work/underground tanks (If yes, please provide details.)	No	
23.	Have disused underground tanks been removed or otherwise secured (e.g. concrete, sand, etc.)?	-	Not applicable
24.	Are there any known contaminations on site? (If yes, please provide details.)	-	
25.	Has the site ever been remediated? (If yes, please provide details.)	-	

### Observations

1.	Are chemical storage areas provided with secondary containment (i.e. bund walls and floors)?	N/A	No chemical storage area
2.	What are the conditions of the bund walls and floors?	N/A	No chemical storage area
3.	Are any surface water drains located near to drum storage and unloading areas?	No	
4.	Are any solid or liquid waste (other than wastewater) generated at the site? (If yes, please provide details.)	No	
5.	Is there a storage site for the wastes?	No	
6.	Is there an on-site landfill?	No	
7.	Were any stressed vegetation noted on site during the site reconnaissance? (If yes, please indicate location and approximate size.)	No	
8.	Were any stained surfaces noted on-site during the site reconnaissance? (If yes, please provide details.)	No	
9.	Are there any potential off-site sources of contamination?	No	
10.	Does the site have any equipment which might contain polychlorinated biphenyls (PCBs)?	No	
11.	Are there any sumps, effluent pits, interceptors or lagoons on site?	No	
12.	Any noticeable odours during site walkover?	No	
13.	Are any of the following chemicals used on site: fuels, lubricating oils, hydraulic fluids, cleaning solvents, used chemical solutions, acids, anti-corrosive paints, thinners, coal, ash, oily tanks and bilge sludge, metal wastes, wood preservatives and polyurethane foam?	No	

## **APPENDIX 6.3 SITE PHOTO**



**LEGEND:**

 Project Site

 Viewpoint

	Prepared	Checked	Approved
Initial	Various	Various	HM
Date	20250926	20250926	20250926

**Project Title**  
 PROPOSED SOCIAL WELFARE FACILITIES (RESIDENTIAL CARE HOME FOR THE ELDERLY (RCHE)) IN "VILLAGE TYPE DEVELOPMENT" ZONE, VARIOUS LOTS IN D.D. 104 AND ADJOINING GOVERNMENT LAND, NAM SANG WAI, YUEN LONG

**Figure Title**  
 Viewpoint of photo record

<b>Figure No.</b>	<b>Rev.</b>
Appendix 6.3	0

**Photo Record of Site Survey (24/07/2025)**



Photo 1: Site perimeter at northeast of the site



Photo 2: Site perimeter at southeast of the site



Photo 3: Site perimeter at southwest of the site



Photo 4: Site perimeter at southwest of the site



Photo 5: Site perimeter at northwest of the site



Photo 6: General view of the site



Photo 7: The site was vacant and unpaved



Photo 8: No oil stain is observed on the ground



Photo 9: No oil stain is observed on the ground

## Appendix 5

### Revised Sewerage Impact Assessment

**PROPOSED SOCIAL WELFARE FACILITIES  
(RESIDENTIAL CARE HOME FOR THE  
ELDERLY (RCHE)) IN “VILLAGE TYPE  
DEVELOPMENT” ZONE, VARIOUS LOTS IN  
D.D. 104 AND ADJOINING GOVERNMENT  
LAND, NAM SANG WAI, YUEN LONG**

**SEWERAGE IMPACT ASSESSMENT**

14 Nov 2025

Report No: RT25285-SIA-01C

*Prepared By:*



**BeeXergy Consulting Limited (BXG)**

Phone:

Address:

Email:

Project:	PROPOSED SOCIAL WELFARE FACILITIES (RESIDENTIAL CARE HOME FOR THE ELDERLY (RCHE)) IN "VILLAGE TYPE DEVELOPMENT" ZONE, VARIOUS LOTS IN D.D. 104 AND ADJOINING GOVERNMENT LAND, NAM SANG WAI, YUEN LONG SEWERAGE IMPACT ASSESSMENT				
Report No.:	Ref: RT25285-SIA-01C				
Revision	Issue Date	Description	Author	Checker	Approver
0	20/05/2025	Issued for Comment	LY	YS	HM
A	08/07/2025	Issued for Comment	LY	YS	HM
B	14/10/2025	Issued for Comment	VS	LY	HM
C	14/11/2025	Issued for Comment	VS	LY	HM

Prepared By:

Checked by

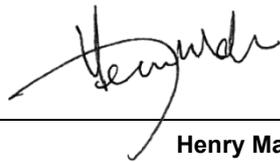


Various

Leo Yu

Consultant

Approved by:



Henry Mak

Director

Disclaimer:

- This report is prepared and submitted by Beexergy Consulting Limited with all reasonable skill to the best of our knowledge, incorporating our Terms and Conditions and taking account of the resources devoted to it by agreement with the client.
- We disclaim any responsibility to the client and others in respect of any matters outside the project scope.
- This report is confidential to the client and we accept no responsibility of whatsoever nature to third parties to whom this report, or any part thereof, is made known. Any such party relies upon the report at their own risk.

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APPENDIX B	SEWAGE CALCULATION AND HYDRAULIC CAPACITY CHECK
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APPENDIX D	PLANNED COMMUNAL GRAVITY SEWERS UNDER OTHER APPROVED APPLICATION

## **1 INTRODUCTION**

### **1.1 PROJECT BACKGROUND**

1.1.1. The Project Proponent proposes to develop a 3-storey Residential Care Home for the Elderly (RCHE) in various lots in D.D. 104, Nam Sang Wai (hereafter called “the Proposed Development”).

1.1.2. BeeXergy Consulting Limited was appointed by DeSPACE (International) Limited (the Town Planner) to conduct a Sewerage Impact Assessment (SIA) for the Proposed Development to support the application under Section 16 of the Town Planning Ordinance. The latest architectural drawings and technical information on the Project Site were largely provided by the Project Architect.

### **1.2 PROJECT LOCATION**

1.2.1. The Project Site is approximately 1844m<sup>2</sup>, currently bounded by abandoned fishponds to the north and west, Kam Pok Road East to the south. **Figure 1** shows the location of the Project Site and its surrounding area.

### **1.3 DESCRIPTION OF THE SUBJECT SITE AND PROPOSED DEVELOPMENT**

1.3.1. The Project Site area is approximately 1,844m<sup>2</sup>. The Proposed Development is an 3-storey building consisting of RCHE dormitory and communal area. The master layout plan provided by the Project Architect is enclosed in **Appendix A**. The tentative population intake year is 2030.

## **2 SEWERAGE IMPACT ASSESSMENT**

### **2.1 SCOPE OF WORKS**

2.1.1. The objective of this SIA is to assess whether the capacity of the sewerage networking is sufficient to cope with the peak sewage flow arising from the Proposed Development during its operation stage or not and to recommend appropriate mitigation measures to alleviate unacceptable sewerage impact, if any.

### **2.2 EXISTING SEWERAGE FACILITIES**

2.2.1. The existing sewerage record from the Lands Department (LandsD) and Drainage Service Department (DSD) are obtained for this SIA and attached in **Figure 2**. There are no existing manholes identified in the sewerage plan. The public sewerage facility located closest to the Project Site is Nam Sang Wai Sewage Pumping Station which is located approximately 800m away from the boundary of the Project Site. Reference

was made to the approved planning application (A/YL-NSW/314), a set of existing 225mm public sewerage system (from feature no. MH540 to MH235) is identified along Kam Pok Road East, which is currently not in use, the relevant information is extracted in **Appendix C**.

## 2.3 OTHER PLANNED SEWERAGE FACILITIES

2.3.1. Reference was made to the approved planning application (A/YL-NSW/314), newly proposed sewers (P1 to P15) and upgrading works of the existing sewers identified along Kam Pok Road East (MH540 to MH235) were proposed to serve its own development and planned development sites in vicinity. The proposed communal sewers will also become public sewers and maintained by relevant government department such as DSD. The location of the proposed connection are shown in **Figure 3**.

2.3.2. It is noted that downstream sections of the communal gravity sewer, from manhole at the junction with Kam Pok Road connecting proposed manhole P3 to existing manhole FSH1001886, which connect along Pok Wai South Road to Nam Sang Wai Sewage Pumping Station (NSWSPS), have been proposed by several approved planning applications (No.: A/YL-NSW/314, Y/YL-NSW/7 and Y/YL-MP/10). The proposed alignment of this downstream section of the communal gravity sewer of different planning applications are shown in **Appendix D**. The proposed communal sewers ranged from **623mm, twin 675 mm and twin 750 mm** for sewer P3 to FSH1001886 along the Pok Wai South Road which will be sufficient to cater the additional sewage due to other nearby developments. **For conservative approach, where utilising the proposed communal gravity sewer from other developments is required, the smallest pipe diameter shall be assumed in hydraulic assessment.**

## 2.4 PROPOSED SEWERAGE FACILITIES

2.4.1. **New terminal manhole (namely S1) and manholes MH660, MH620 and MH580 will be constructed to collect** the sewage generated from the Proposed Development and **connect to manhole MH540** via a new 225mm diameter sewer pipe. The location of the proposed connection are shown in **Figure 3**. The cover level of proposed terminal manhole should be higher than that of the downstream public manhole(s). The proposed new terminal manhole and 225mm sewer pipe within site boundary will be implemented and maintained by the Project Proponent, other proposed manhole and sewer outside site boundary will become a public sewage system serving multiple users and will be handed over to government for future maintenance. The capacity check of the sewer will start from the proposed terminal manhole S1. The proposed

development would not have population intake before the sewerage infrastructure of the project is functionally connected to the public sewerage system by other development mentioned in Section 2.3.

2.4.2. For other proposed sewers and upgrading works from MH540 to FSH100188, the Project Proponent will be responsible for the liaison and coordination with the other interfacing projects for the implementation of the required sewerage works in later stage. In case these planned sewers are not available at the time of completion of the Proposed Development, the Project Proponent will, after liaison with DSD and the other future developments near the Proposed Site, construct the sewers in order to cater the sewage discharge during operation of the Proposed Development should a population intake be required. Otherwise, there will be no population intake until proposed sewerage system becomes available.

2.4.3. The party responsible for construction of sewers from manhole S1 to FSH1001886 is summarized in **Table 2.1**.

**Table 2.1 Construction Responsibilities**

Location	Manhole Section	Construction Responsibility
Within Development Boundary	S1 to MH660	The Developer
Outside Development Boundary	MH660 to MH540	The Developer
Outside Development Boundary	MH540 to FSH1001886	The Developer of other Developments

## 2.5 MAINTENANCE RESPONSIBILITY

2.5.1. All sewers and sewerage facilities within the proposed development will be constructed, operated, and maintained by the Proposed Development.

2.5.2. For downstream sections of the communal gravity sewer that are proposed along Kam Pok East and Pok Wai South Rod to NSWSPS will become public sewers and handed over to the DSD for future maintenance.

2.5.3. The party responsible for maintenance of sewers from manhole S1 to FSH1001886 is summarized in **Table 2.2**.

**Table 2.2 Maintenance Responsibilities**

Location	Manhole Section	Maintenance Responsibility
Within Development Boundary	S1 to MH660	The Developer
Outside Development Boundary	MH660 to FSH1001886	DSD

## 2.6 ASSESSMENT CRITERIA, METHODOLOGY, AND ASSUMPTIONS

2.6.1. The Unit Flow Factors and Global Peaking Factor are adopted from the figures in the Guidelines for Estimating Sewage Flows for Sewage Infrastructure Planning (Version

1.0)<sup>1</sup> (GESF) issued by the Environmental Protection Department (EPD) in March 2005 to estimate the sewage flows generated from the Project Site.

2.6.2. The Unit Flow Factors and Catchment Inflow Factors as shown in **Table 2.3** below are adopted in the assessment and the surrounding catchments are shown in **Figure 3**.

**Table 2.3 Unit Flow Factors and Catchment Inflow Factors Extracted from GESF**

Parameter	Value	Justification
<i>Population</i>		
Residents in Proposed Development	208 people	208 beds
Employees in Proposed Development	90 people	Advised by Project Proponent
<i>Unit Flow Factors</i>		
Residents and Visitors in Proposed Development	0.19m <sup>3</sup> /day	“Institutional and special class” based on EPD’s GESF Table T-1.
Employees in Proposed Development	0.28m <sup>3</sup> /day	J11 “Community, Social & Personal Services” based on EPD’s GESF Table T-2.
<i>Catchment Inflow Factor (P<sub>CIF</sub>)</i>		
Discharge from the Project Site and all Catchments	1.0	Yuen Long Catchment based on EPD’s GESF Table T-4.

2.6.3. With reference to Table T-5 of GESF, a global peaking factor of 8 and 6 (including stormwater allowance) are adopted according to the contributing population.

2.6.4. With reference to Table 5 in the Sewerage Manual (Part 1)<sup>2</sup> issued by the DSD in May 2013, slimed sewer of  $k_s$  of 0.6mm under “Poor” condition is assumed for both the sewers from the Subject Site and existing sewerage system in the worst-case scenario. The Colebrook-White Equation will be used to analyse the flow conditions. Equation (ii) for circular pipes flowing partially full is adopted to estimate the sewage flow for the Subject Site and following sewers.

## 2.7 RESULTS AND DISCUSSION

2.7.1. The estimated average flow rate and total peak flow of the Proposed Development are approximately 64.7m<sup>3</sup>/day and 5.99L/s.

<sup>1</sup> [http://www.epd.gov.hk/epd/sites/default/files/epd/english/environmentinhk/water/guide\\_ref/files/gesf.pdf](http://www.epd.gov.hk/epd/sites/default/files/epd/english/environmentinhk/water/guide_ref/files/gesf.pdf)

<sup>2</sup> [http://www.dsd.gov.hk/EN/Files/Technical\\_Manual/technical\\_manuals/Sewerage\\_Manual\\_1\\_Eurocodes.pdf](http://www.dsd.gov.hk/EN/Files/Technical_Manual/technical_manuals/Sewerage_Manual_1_Eurocodes.pdf)

2.7.2. Sewage generated from the Proposed Development and surrounding catchment areas will be connected at the downstream of sewage network. The cumulative flow is not exceeded sewer capacity and no adverse sewerage impacts to the sewerage system are identified. Details of the sewage calculation are included in **Appendix B**.

### **3 CONCLUSION**

3.2.1. A Social Welfare Facility (Residential Care Home for the Elderly) is proposed to develop at various lots in D.D. 104, Nam Sang Wai. This is the SIA to support the application under Section 16 of the Town Planning Ordinance. Based on the SIA results, it is found that the **proposed** sewerage system serving the area has sufficient capacity to cater for the sewage generation from the proposed development and the surrounding **planned developments**. Adverse sewerage impacts are not anticipated.

**FIGURE 1**  
**LOCATION OF THE PROJECT SITE AND ITS**  
**SURROUNDING AREA**

---

LEGEND:

 Site Boundary



	Prepared	Checked	Approved
Initial	LY	YS	HM
Date	20250530	20250530	20250530

Project Title  
 Proposed Social Welfare Facilities (Residential Care Home for the Elderly (RCHE)) in "Village Type Development" Zone, Various Lots in D.D. 104 and Adjoining Government Land, Nam Sang Wai, Yuen Long

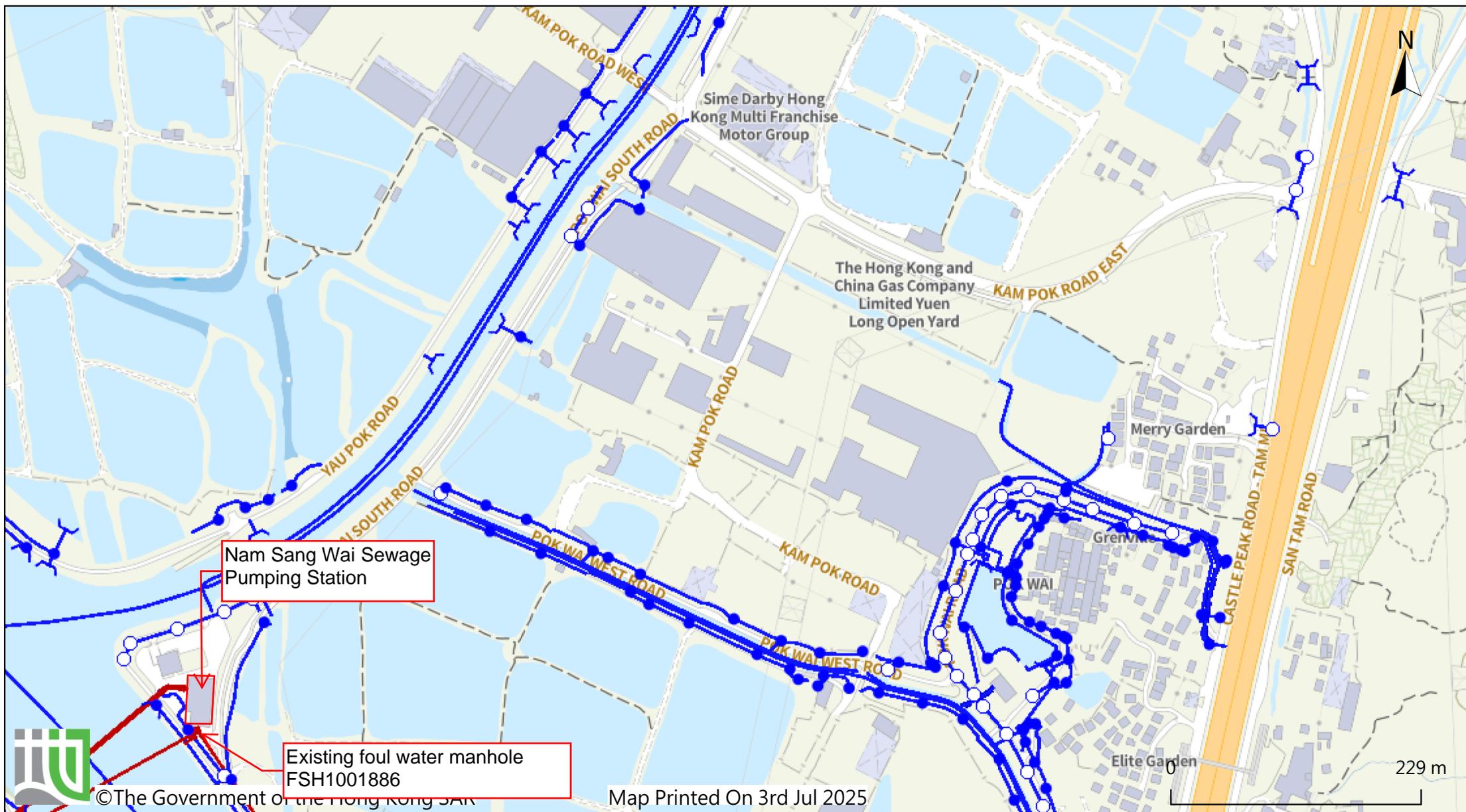
Drawing Title  
 PROPOSED DEVELOPMENT LOCATION

Drawing No. FIGURE 1	Rev. 0
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Scale:  
 A4 - 1:5500

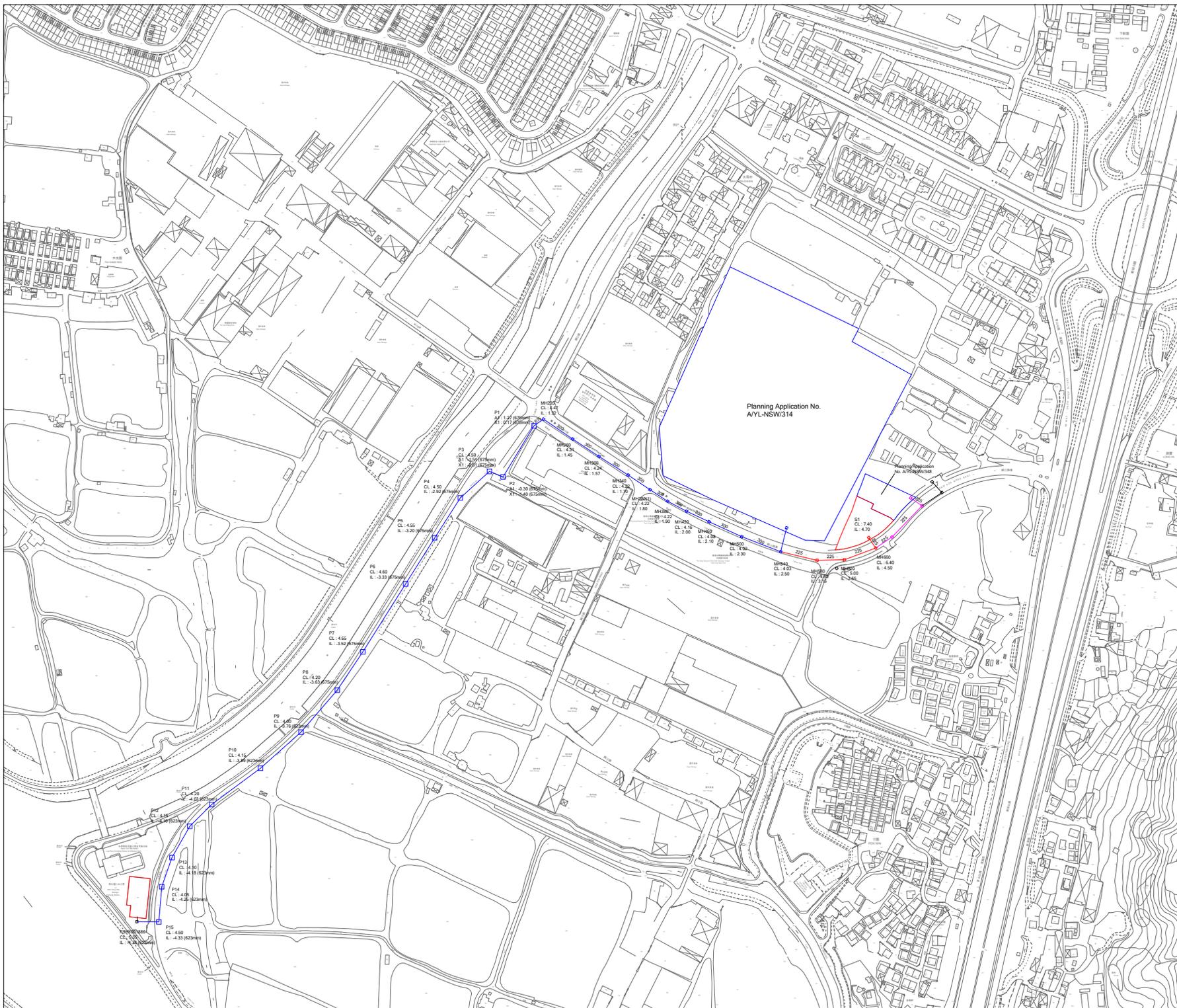
**FIGURE 2**  
**EXISTING SEWERAGE SYSTEM**

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**FIGURE 3**  
**PROPOSED TERMINAL MANHOLE AND**  
**CONNECTION**

---



**LEGEND:**

- Site Boundary
- Proposed Manhole
- Proposed Sewer
- Existing Manhole
- Existing Sewer
- Proposed Manhole (by App. No. A/YL-NSW/314)
- Proposed Sewer (by App. No. A/YL-NSW/314)
- Proposed Manhole (by App. No. A/YL-NSW/348)
- Proposed Sewer (by App. No. A/YL-NSW/348)

	Prepared	Checked	Approved
Initial	VS	LY	HM
Date	20251114	20251114	20251114

**Project Title**

Proposed Social Welfare Facilities (Residential Care Home for the Elderly(RCHE)) in "Village Type Development" Zone, Various Lots in D.D. 104 and Adjoining Government Land, Nam Sang Wai, Yuen Long

**Drawing Title**

PROPOSED TERMINAL MANHOLE AND CONNECTION

Drawing No.	Rev.
FIGURE 3	0

Scale: A4 - 1:5500

# **APPENDIX A**

# **MASTER LAYOUT PLAN**

---

NOTES:

LEGEND:

- THE SITE
- EVA
- GOVERNMENT LAND
- OVERHEAD LINES
- EXISTING NOISE BARRIER

REV	DATE	DESCRIPTION	BY	CHKD
A	22.9.2025	CONCEPT DESIGN	KC	PC
-	5.5.2025	CONCEPT DESIGN	KC	PC

Do not scale from drawings. All dimensions must be checked and verified on site before any works are undertaken. Any discrepancies must be reported in writing to Architect.

CLIENT

TOWN PLANNER

DeSPACE (International) Limited

ARCHITECT

Vessel International Limited  
Syn Plus Design Limited



PROJECT : Proposed Social Welfare Facilities (Residential Care Home for the Elderly (RCHE)) in "Village Type Development" Zone, Various Lots in D.D. 104 and Adjoining Government Land, Nam Sang Wai, Yuen Long

DRAWING : EVA PLAN

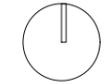
SCALE : 1:400 @A3

PROJECT NO : 25001\_KPR

Drawing No. : Date:

**FIGURE 2** MAY 2025





NOTES:

REV	DATE	DESCRIPTION	BY	CHKD
A	9.7.2025	CONCEPT DESIGN	KC	PC
-	5.5.2025	CONCEPT DESIGN	KC	PC

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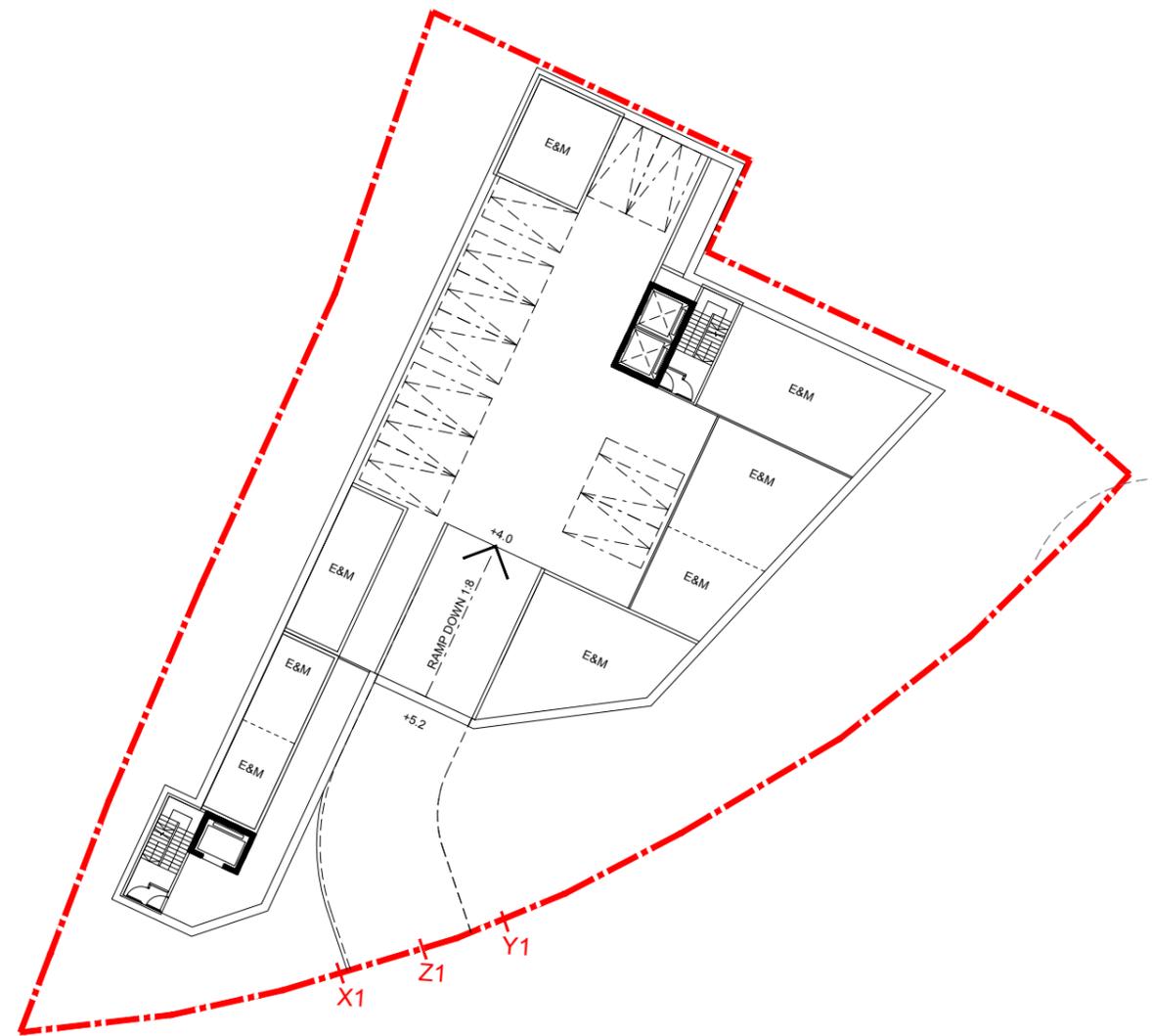
DRAWING : BASEMENT FLOOR PLAN

SCALE : 1:400 @A3 Rev: —

PROJECT NO: 25001\_KPR

Drawing No. : Date:

CP-B102 MAY 2025



**BASEMENT FLOOR PLAN**  
KAM POK ROAD E RCHE 1:400 @ A3

NOTES:

LEGEND:

 PROPOSED PEDESTRIAN ACCESS

REV	DATE	DESCRIPTION	BY	CHKD
B	22.9.2025	CONCEPT DESIGN	KC	PC
A	9.7.2025	CONCEPT DESIGN	KC	PC
-	5.5.2025	CONCEPT DESIGN	KC	PC

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TOWN PLANNER

DeSPACE (International) Limited



ARCHITECT

Vessel International Limited  
Syn Plus Design Limited



PROJECT : Proposed Social Welfare Facilities (Residential Care Home for the Elderly (RCHE)) in "Village Type Development" Zone, Various Lots in D.D. 104 and Adjoining Government Land, Nam Sang Wai, Yuen Long

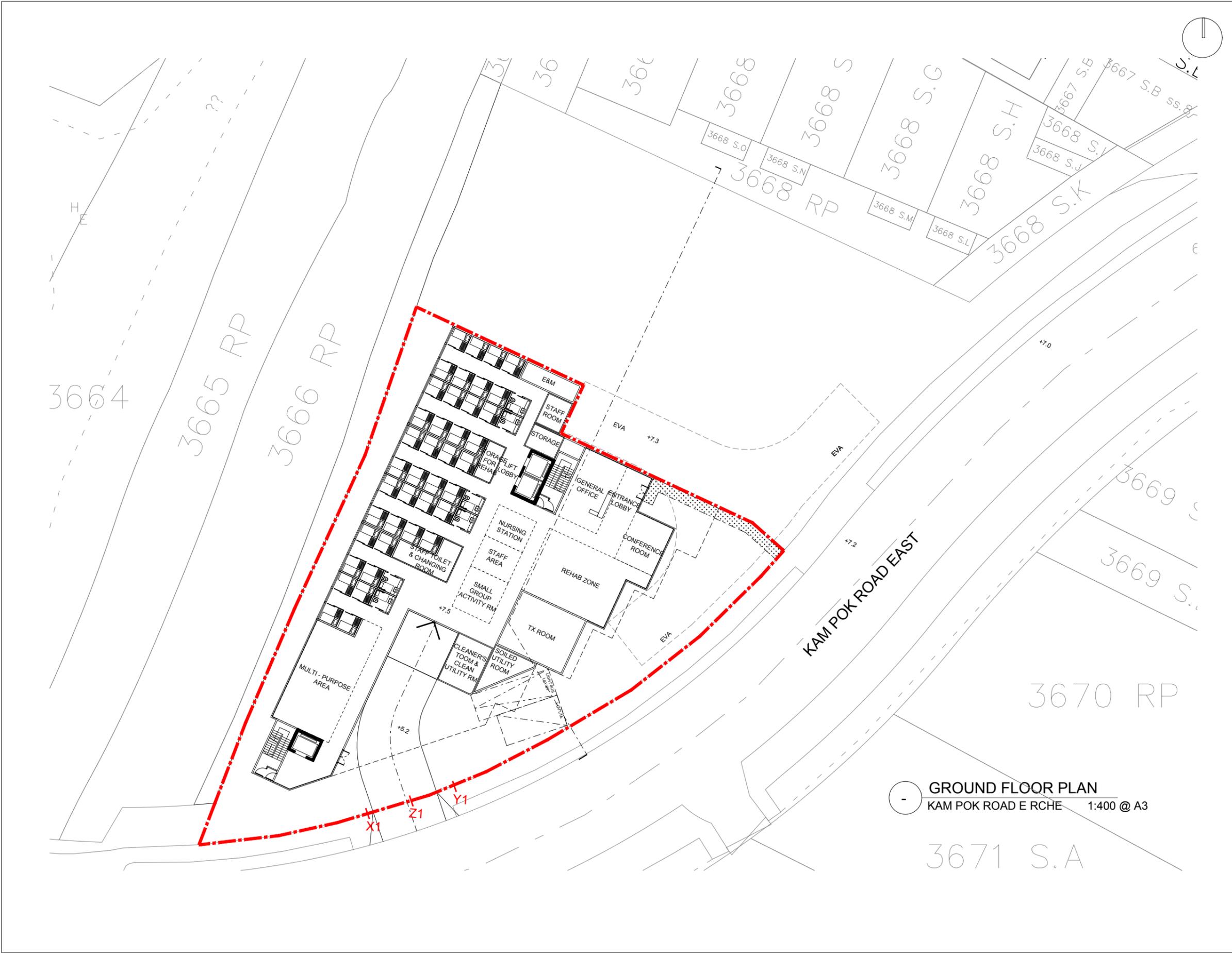
DRAWING : GROUND FLOOR PLAN

SCALE : 1:400 @A3

PROJECT NO: 25001\_KPR

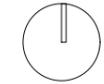
Drawing No. : Date:

CP-B103 MAY 2025



**GROUND FLOOR PLAN**  
KAM POK ROAD E RCHE 1:400 @ A3

3671 S.A



NOTES:

 PROPOSED BALCONIES

REV	DATE	DESCRIPTION	BY	CHKD
A	9.7.2025	CONCEPT DESIGN	KC	PC
-	5.5.2025	CONCEPT DESIGN	KC	PC

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TOWN PLANNER

DeSPACE (International) Limited



ARCHITECT

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PROJECT : Proposed Social Welfare Facilities (Residential Care Home for the Elderly (RCHE)) in "Village Type Development" Zone, Various Lots in D.D. 104 and Adjoining Government Land, Nam Sang Wai, Yuen Long

DRAWING : FIRST FLOOR PLAN

SCALE : 1:400 @A3 Rev: -

PROJECT NO : 25001\_KPR

Drawing No. : Date:

CP-B104 MAY 2025



 **1ST FLOOR PLAN**  
KAM POK ROAD E RCHE 1:400 @ A3



NOTES:

 PROPOSED BALCONIES

REV	DATE	DESCRIPTION	BY	CHKD
A	9.7.2025	CONCEPT DESIGN	KC	PC
-	5.5.2025	CONCEPT DESIGN	KC	PC

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PROJECT : Proposed Social Welfare Facilities (Residential Care Home for the Elderly (RCHE)) in "Village Type Development" Zone, Various Lots in D.D. 104 and Adjoining Government Land, Nam Sang Wai, Yuen Long

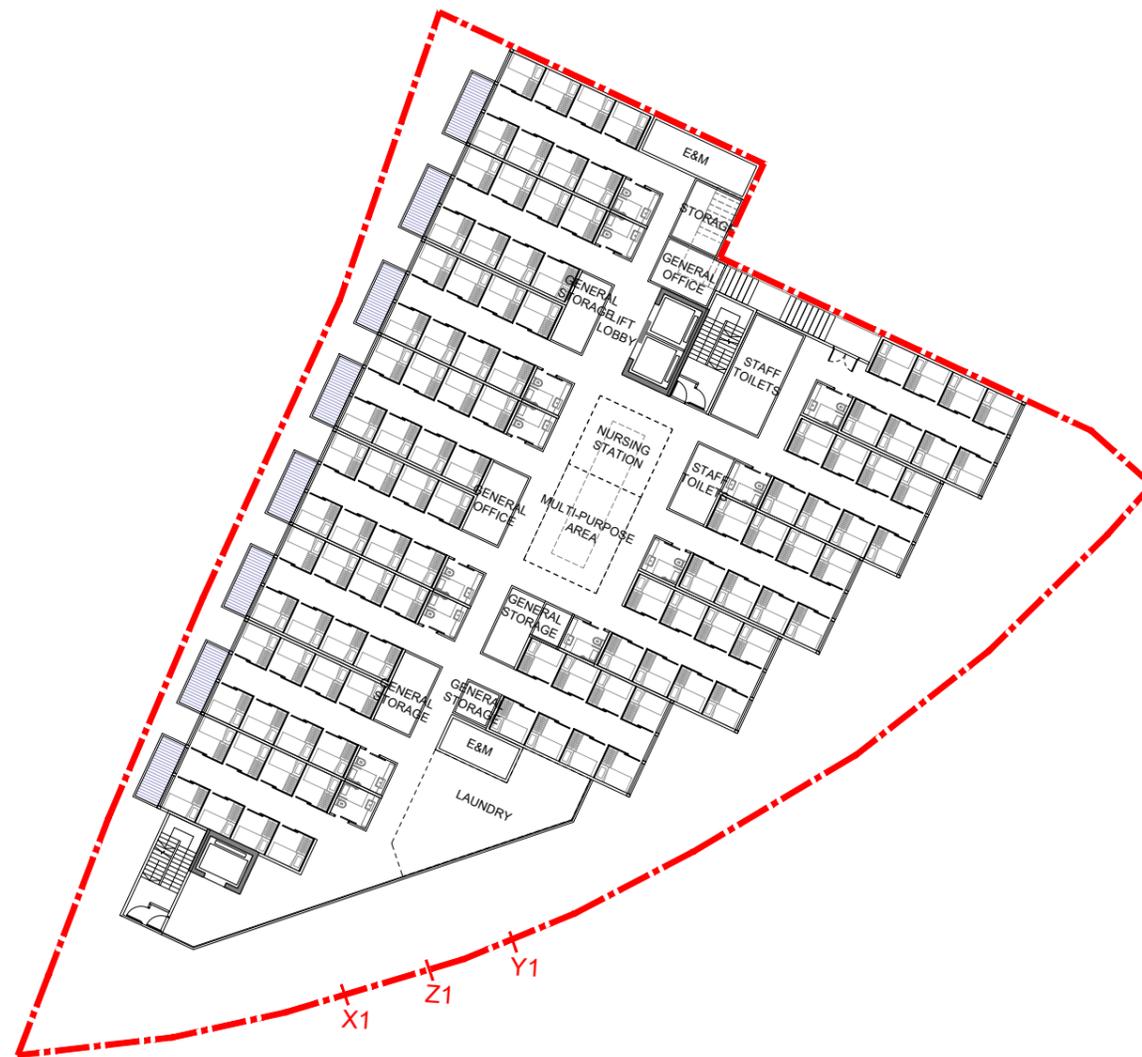
DRAWING : SECOND FLOOR PLAN

SCALE : 1:400 @A3 Rev: -

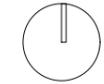
PROJECT NO : 25001\_KPR

Drawing No. : Date:

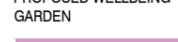
CP-B105 MAY 2025



 2ND FLOOR PLAN  
KAM POK ROAD E RCHE 1:400 @ A3



NOTES:

	
PROPOSED PLANTERS	PROPOSED LAWN
	
PROPOSED SKYLIGHT	PROPOSED WELLBEING GARDEN
	
PROPOSED VIEWING DECK	PROPOSED INTERACTIVE CONNECTION ZONE

REV	DATE	DESCRIPTION	BY	CHKD
-	5.5.2025	CONCEPT DESIGN	KC	PC

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Syn Plus Design Limited



PROJECT : Proposed Social Welfare Facilities (Residential Care Home for the Elderly (RCHE)) in "Village Type Development" Zone, Various Lots in D.D. 104 and Adjoining Government Land, Nam Sang Wai, Yuen Long

DRAWING : ROOF PLAN

SCALE : 1:400 @A3 Rev: -

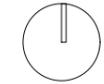
PROJECT NO : 25001\_KPR

Drawing No. : Date:

CP-B106 MAY 2025



ROOF PLAN  
KAM POK ROAD E RCHE 1:400 @ A3



NOTES:

REV	DATE	DESCRIPTION	BY	CHKD
-	5.5.2025	CONCEPT DESIGN	KC	PC

Do not scale from drawings. All dimensions must be checked and verified on site before any works are undertaken. Any discrepancies must be reported in writing to Architect.

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ARCHITECT

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Syn Plus Design Limited



PROJECT : Proposed Social Welfare Facilities (Residential Care Home for the Elderly (RCHE)) in "Village Type Development" Zone, Various Lots in D.D. 104 and Adjoining Government Land, Nam Sang Wai, Yuen Long

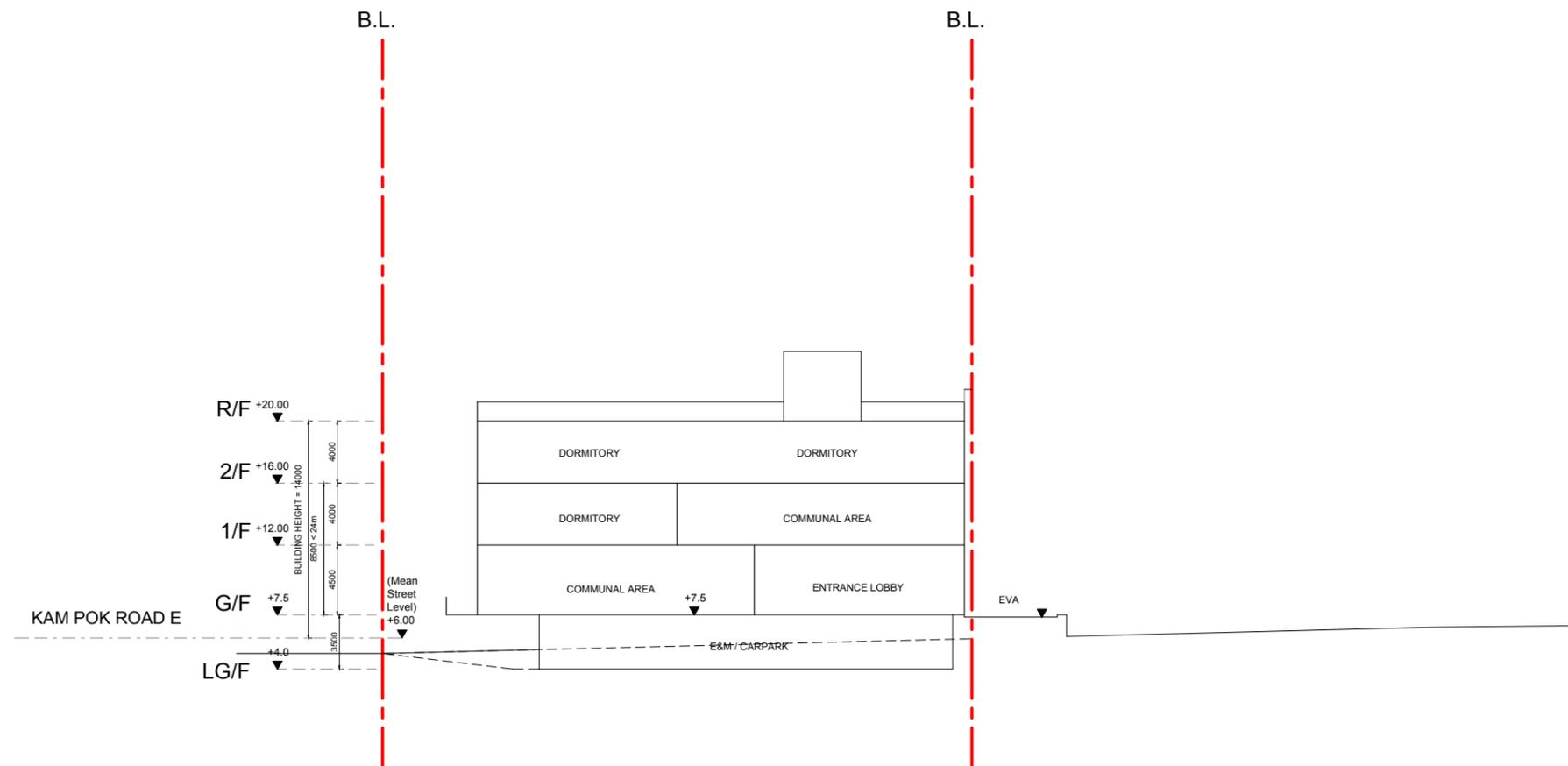
DRAWING : SCHEMATIC SECTION

SCALE : 1: 400 @A3 Rev: —

PROJECT NO: 25001\_KPR

Drawing No. : Date:

CP-B201 MAY 2025



SCHEMATIC SECTION  
KAM POK ROAD E RCHE 1:400 @ A3

**APPENDIX B**  
**SEWAGE CALCULATION AND HYDRAULIC**  
**CAPACITY CHECK**

---

**APPENDIX B - CALCULATION OF SEWAGE FLOW**

Development	GFA (m <sup>2</sup> )	No. of Flat	Occupancy Density <sup>(a), (b)</sup> (Number of Persons) (Workers per GFA in 100m <sup>2</sup> )	Estimated Population	Unit Flow Factor (m <sup>3</sup> /day)	Estimated Average Dry Weather Flow (m <sup>3</sup> /day)	Catchment Inflow Factor	Estimated Average Dry Weather Flow X Catchment Inflow Factor (m <sup>3</sup> /day)	Remarks
<b>1) Proposed Development</b>									
Residents in Proposed Development	3850	-	-	208	0.19	39.520	1.0	39.520	Estimated Population: The proposed development scheme will provide 178 bed spaces. Unit Flow Factor: 0.190m <sup>3</sup> /day for 'Institutional and special class' based on EPD's GESF Table T-1
Employees in Proposed Development		-	-	90	0.28	25.200		25.200	
<b>Total Average Daily Dry Weather Flow of Proposed Development (m<sup>3</sup>/day)</b>								<b>64.720</b>	

**Sewage Flow of Planned Development**

Planning Application No.	ADWF (m3/day)	Contributing Populatoin [1]
A/YL-NSW/348	59.02	219
A/YL-NSW/314	125.3	464
Y/YL-MP/7	1001.1	3708
Y/YL-MP/8	984.3	3646
Y/YL-MP/10	1972.76	7307
Y/YL-MP/11	1039.06	3848
Y/YL-NSW/7	1565	5796

Section	Contributing Development	Total ADWF (m3/day)	Total Contributing Population	Peaking Factor	Peak Flow (L/s)
MH660 to MH540	Proposed Development A/YL-NSW/348	123.740	517	8	11.46
MH540 to P3	Proposed Development A/YL-NSW/348 A/YL-NSW/314	249.040	981	8	23.06
P3 to P9	Proposed Development A/YL-NSW/348 A/YL-NSW/314 Y/YL-MP/7 Y/YL-MP/8 Y/YL-MP/10 Y/YL-MP/11	5246.260	19489	4	242.88
P9 to FSH1001886	Proposed Development A/YL-NSW/348 A/YL-NSW/314 Y/YL-MP/7 Y/YL-MP/8 Y/YL-MP/10 Y/YL-MP/11 Y/YL-NSW/7	6811.260	25285	4	315.34

Note:

[1] Contributing population = Project calculated total average flow (ADWF in m3/day) / 0.27 (m3/person/day)

**Appendix B - Hydraulic Capacity of the Proposed and Downstream Sewers**

Manhole Reference	Manhole Reference	Pipe Dia.	Pipe Length	Upstream Invert Level	Downstream Invert Level	g <sup>(1)</sup>	k <sub>s</sub> <sup>(1),(2)</sup>	s <sup>(1)</sup>	v <sup>(1)</sup>	v <sup>(1),(2)</sup>	A	Q <sup>(4)</sup>	Estimated Capacity	ADWF	Contributing Population	Peaking Factor	Peak Flow	Capacity	Compliance	Remarks
		mm	m	mPD	mPD	m/s <sup>2</sup>	m	m <sup>2</sup> /s	m/s	m <sup>2</sup>	m <sup>3</sup> /s	L/s	m <sup>3</sup> /day	L/s						
S1	MH660	225	27.0	4.700	4.500	9.81	0.0006	0.0074	1.306E-06	1.1196	0.0398	0.0445	44.52	64.72	298	8	5.99	13.5%	Yes	
MH660	MH620	225	42.0	4.500	3.650	9.81	0.0006	0.0202	1.306E-06	1.8611	0.0398	0.0740	74.00	123.74	517	8	11.46	15.5%	Yes	
MH620	MH580	225	31.0	3.650	3.150	9.81	0.0006	0.0161	1.306E-06	1.6597	0.0398	0.0660	65.99	123.74	517	8	11.46	17.4%	Yes	
MH580	MH540	225	38.0	3.150	2.500	9.81	0.0006	0.0171	1.306E-06	1.7097	0.0398	0.0680	67.98	123.74	517	8	11.46	16.9%	Yes	
MH540	MH500	300	46.0	2.500	2.300	9.81	0.0006	0.0043	1.306E-06	1.0286	0.0707	0.0727	72.71	249.04	981	8	23.06	31.7%	Yes	
MH500	MH460	300	40.0	2.300	2.100	9.81	0.0006	0.0050	1.306E-06	1.1042	0.0707	0.0781	78.05	249.04	981	8	23.06	29.5%	Yes	
MH460	MH420	300	27.0	2.100	2.000	9.81	0.0006	0.0037	1.306E-06	0.9482	0.0707	0.0670	67.02	249.04	981	8	23.06	34.4%	Yes	
MH420	MH380	300	24.0	2.000	1.900	9.81	0.0006	0.0042	1.306E-06	1.0066	0.0707	0.0712	71.16	249.04	981	8	23.06	32.4%	Yes	
MH380	MH380(1)	300	23.0	1.900	1.800	9.81	0.0006	0.0043	1.306E-06	1.0286	0.0707	0.0727	72.71	249.04	981	8	23.06	31.7%	Yes	
MH380(1)	MH340	300	29.0	1.800	1.700	9.81	0.0006	0.0034	1.306E-06	0.9144	0.0707	0.0646	64.63	249.04	981	8	23.06	35.7%	Yes	
MH340	MH300	300	38.0	1.700	1.570	9.81	0.0006	0.0034	1.306E-06	0.9107	0.0707	0.0644	64.37	249.04	981	8	23.06	35.8%	Yes	
MH300	MH260	300	35.0	1.570	1.450	9.81	0.0006	0.0034	1.306E-06	0.9117	0.0707	0.0644	64.44	249.04	981	8	23.06	35.8%	Yes	
MH260	MH235	300	39.0	1.450	1.320	9.81	0.0006	0.0033	1.306E-06	0.8987	0.0707	0.0635	63.53	249.04	981	8	23.06	36.3%	Yes	
MH235	P1	675	13.0	1.320	1.270	9.81	0.0006	0.0038	1.306E-06	1.6166	0.3578	0.5785	1157.03	249.04	981	8	23.06	2.0%	Yes	Twin pipe
P1	P2	675	66.0	0.170	-0.300	9.81	0.0006	0.0071	1.306E-06	2.2057	0.3578	0.7893	1578.57	249.04	981	8	23.06	1.5%	Yes	Twin pipe
P2	P3	675	16.0	-1.400	-1.510	9.81	0.0006	0.0069	1.306E-06	2.1669	0.3578	0.7754	1550.84	249.04	981	8	23.06	1.5%	Yes	Twin pipe
P3	P4	675	43.0	-2.610	-2.920	9.81	0.0006	0.0072	1.306E-06	2.2194	0.3578	0.7942	1588.38	5246.26	19489	4	242.88	15.3%	Yes	Twin pipe
P4	P5	675	52.0	-2.920	-3.200	9.81	0.0006	0.0054	1.306E-06	1.9158	0.3578	0.6856	1371.14	5246.26	19489	4	242.88	17.7%	Yes	Twin pipe
P5	P6	675	60.0	-3.200	-3.330	9.81	0.0006	0.0022	1.306E-06	1.2094	0.3578	0.4328	865.57	5246.26	19489	4	242.88	28.1%	Yes	Twin pipe
P6	P7	675	88.0	-3.330	-3.520	9.81	0.0006	0.0022	1.306E-06	1.2073	0.3578	0.4320	864.04	5246.26	19489	4	242.88	28.1%	Yes	Twin pipe
P7	P8	675	50.0	-3.520	-3.630	9.81	0.0006	0.0022	1.306E-06	1.2188	0.3578	0.4361	872.29	5246.26	19489	4	242.88	27.8%	Yes	Twin pipe
P8	P9	675	61.0	-3.630	-3.760	9.81	0.0006	0.0021	1.306E-06	1.1993	0.3578	0.4292	858.36	5246.26	19489	4	242.88	28.3%	Yes	Twin pipe
P9	P10	623	59.0	-3.760	-3.890	9.81	0.0006	0.0022	1.306E-06	1.1598	0.3048	0.3535	353.55	6811.26	25285	4	315.34	89.2%	Yes	
P10	P11	623	67.0	-3.890	-4.030	9.81	0.0006	0.0021	1.306E-06	1.1290	0.3048	0.3442	344.17	6811.26	25285	4	315.34	91.6%	Yes	
P11	P12	623	34.0	-4.030	-4.100	9.81	0.0006	0.0021	1.306E-06	1.1206	0.3048	0.3416	341.59	6811.26	25285	4	315.34	92.3%	Yes	
P12	P13	623	40.0	-4.100	-4.180	9.81	0.0006	0.0020	1.306E-06	1.1042	0.3048	0.3366	336.61	6811.26	25285	4	315.34	93.7%	Yes	
P13	P14	623	34.0	-4.180	-4.250	9.81	0.0006	0.0021	1.306E-06	1.1206	0.3048	0.3416	341.59	6811.26	25285	4	315.34	92.3%	Yes	
P14	P15	623	39.0	-4.250	-4.330	9.81	0.0006	0.0021	1.306E-06	1.1185	0.3048	0.3410	340.96	6811.26	25285	4	315.34	92.5%	Yes	
P15	FSH1001886	623	24.0	-4.330	-4.380	9.81	0.0006	0.0021	1.306E-06	1.1273	0.3048	0.3436	343.65	6811.26	25285	4	315.34	91.8%	Yes	

Note:

(1) g=gravitational acceleration; k<sub>s</sub>=equivalent sand roughness; s=gradient; v=kinematic viscosity of water; V=mean velocity

(2) The mean velocity (V) is calculated by the Colebrook-White Equation for circular pipes:

$$V = -\sqrt{(8gD^5) \log\left(\frac{k_s}{3.7D} + \frac{2.51v}{D\sqrt{(2gD^5)}}\right)}$$

where V = mean velocity (m/s)

g = gravitational acceleration (m/s<sup>2</sup>)

D = internal pipe diameter (m)

s = slope

k<sub>s</sub> = roughness coefficient(m)

v = kinematic viscosity of fluid (m<sup>2</sup>/s)

(3) The value of k<sub>s</sub> = 0.6mm is used for the calculation of existing pipe for conservative approach and 0.6mm for proposed new clayware pipe in poor condition based on DSD's "Sewerage Manual" Table 5: Recommended roughness values

(4) Peak flow (Q) is calculated by Q = V x A

**APPENDIX C**  
**EXISTING SEWERS IDENTIFIED UNDER**  
**APPROVED APPLICATION NO. A/YL-NSW/314**

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## 2. SEWERAGE IMPACT ASSESSMENT (“SIA”)

### 2.1 Introduction

2.1.1 The Proposed Development is a comprehensive development scheme to include wetland restoration proposal. This section gives a brief discussion on the current environmental legislation and standards and assess the impacts arising from the proposed development. Recommendations of mitigation measures have been made if there is any adverse effect induced by the proposed development.

### 2.2 Existing and Planned Sewerage Infrastructure

2.2.1 The site currently falls within the Yuen Long / Kam Tin sewerage catchment and is classified as an ~~unsewered area under the Yuen Long / Kam Tin Sewerage Master Plan (YLKT SMP)~~. A set of existing 225mm public sewerage system (from feature no. MH540 to MH235) is identified along Kam Pok Road East, which is currently not in use and could serve the Project Site.

2.2.2 The existing Yuen Long Sewage Treatment Works (YLSTW) serves Yuen Long Town, Yuen Long Industrial Estate and Kam Tin areas with a design capacity of 70,000m<sup>3</sup>/day (ADWF). It provides primary and secondary treatment of sewage collected from the Shan Pui River and then to Deep Bay.

2.2.3 The public sewerage facility located at the Project Site is a Sewerage Pumping Station (SPS), as shown in Figure 2-1.

Existing public sewers under Approved Planning Application No. A/YL-NSW/314

### 2.3 Assessment Methodology and Assumptions

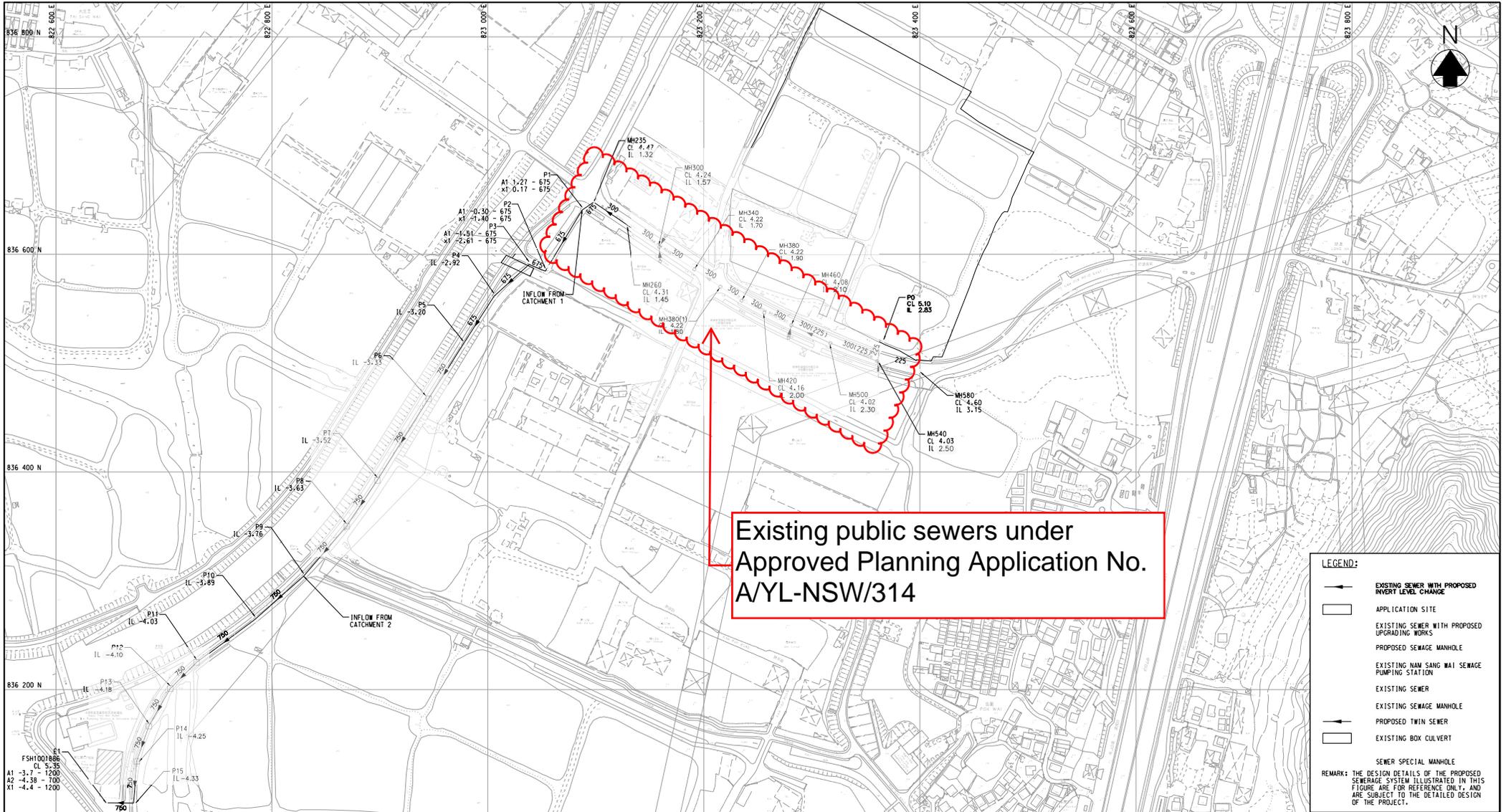
2.3.1 An analysis of the capacity of the sewage pipes and the SPS has been carried out to evaluate the adequacy of the proposed sewerage system. The design assumptions and basis are shown in **Table 2-1**.

**Table 2-1 Design Assumption and Basis**

Items	Values
Design Standard	DSD Sewerage Design Manual, Part 1 & 2
Flow Formula Used	Colebrook White Formula
Unit Flow Factor	EPD Guideline for Estimating Sewerage Flows for Sewerage Infrastructure Planning (GESF) 0.37 m <sup>3</sup> /d/head (Domestic, Private R3) for residents 0.28 m <sup>3</sup> /d/head (Commercial, J11) for clubhouse staff 1.58 m <sup>3</sup> /d/head (Restaurant, J10) for restaurant

### 2.4 Estimate of Sewage Flow

2.4.1 The sewage flow to be generated from the projected residential population, as well as activities at the clubhouse and the associated facilities has been estimated following “EPD Guideline for Estimating Sewerage Flows for Sewerage Infrastructure Planning”. Major contributions of sewage flow from the Proposed Development include projected 270 residents. The estimated sewage flow is shown in **Table 2-2**.



Existing public sewers under  
Approved Planning Application No.  
A/YL-NSW/314

**LEGEND:**

-  EXISTING SEWER WITH PROPOSED INVERT LEVEL CHANGE
-  APPLICATION SITE
-  EXISTING SEWER WITH PROPOSED UPGRADING WORKS
-  PROPOSED SEWAGE MANHOLE
-  EXISTING NAM SANG WAI SEWAGE PUMPING STATION
-  EXISTING SEWER
-  EXISTING SEWAGE MANHOLE
-  PROPOSED TWIN SEWER
-  EXISTING BOX CULVERT
-  SEWER SPECIAL MANHOLE

REMARK: THE DESIGN DETAILS OF THE PROPOSED SEWERAGE SYSTEM ILLUSTRATED IN THIS FIGURE ARE FOR REFERENCE ONLY, AND ARE SUBJECT TO THE DETAILED DESIGN OF THE PROJECT.

Figure: 2.1
Title: PROPOSED SEWERAGE SYSTEM FOR THE APPLICATION SITE
Project: PLANNING APPLICATION FOR PROPOSED COMPREHENSIVE DEVELOPMENT SCHEME TO INCLUDE WETLAND RESTORATION PROPOSAL AND PROPOSED FILLING OF PONDS/LAND AND EXCAVATION OF LAND IN "OU(CDWRA)" ZONE AT VARIOUS LOTS IN D.D. 104, NORTH OF KAM POK ROAD EAST, POK WAI, YUEN LONG, NEW TERRITORIES

<b>RAMBOLL</b>	
Drawn by:	CL
Checked by:	NH
Rev:	6.1
Date:	Aug 2023

User : Che15660  
Plot date : 2023/11/16

**APPENDIX D**  
**PLANNED COMMUNAL GRAVITY SEWERS**  
**UNDER OTHER APPROVED APPLICATION**

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<b>Total Flow from Proposed Development</b>			
Flow rate	=	125.3	m <sup>3</sup> /day
Contributing population *	=	464	People
Peaking factor	=	8	– (Table T-5 of GESF for population <1,000 incl. stormwater allowance)
Peak flow	=	11.60	litre/sec
<p>Note:</p> <ol style="list-style-type: none"> <li>1. According to the submitted planning statement for current proposed development, the concerned dwellings will comprise 2-storeys to 4-storeys housing units with an average household size is assumed to be 3 people.</li> <li>2. * according to the calculation method in GESF for the so-called “Contributing Population” for peaking factor selection.</li> </ol>			

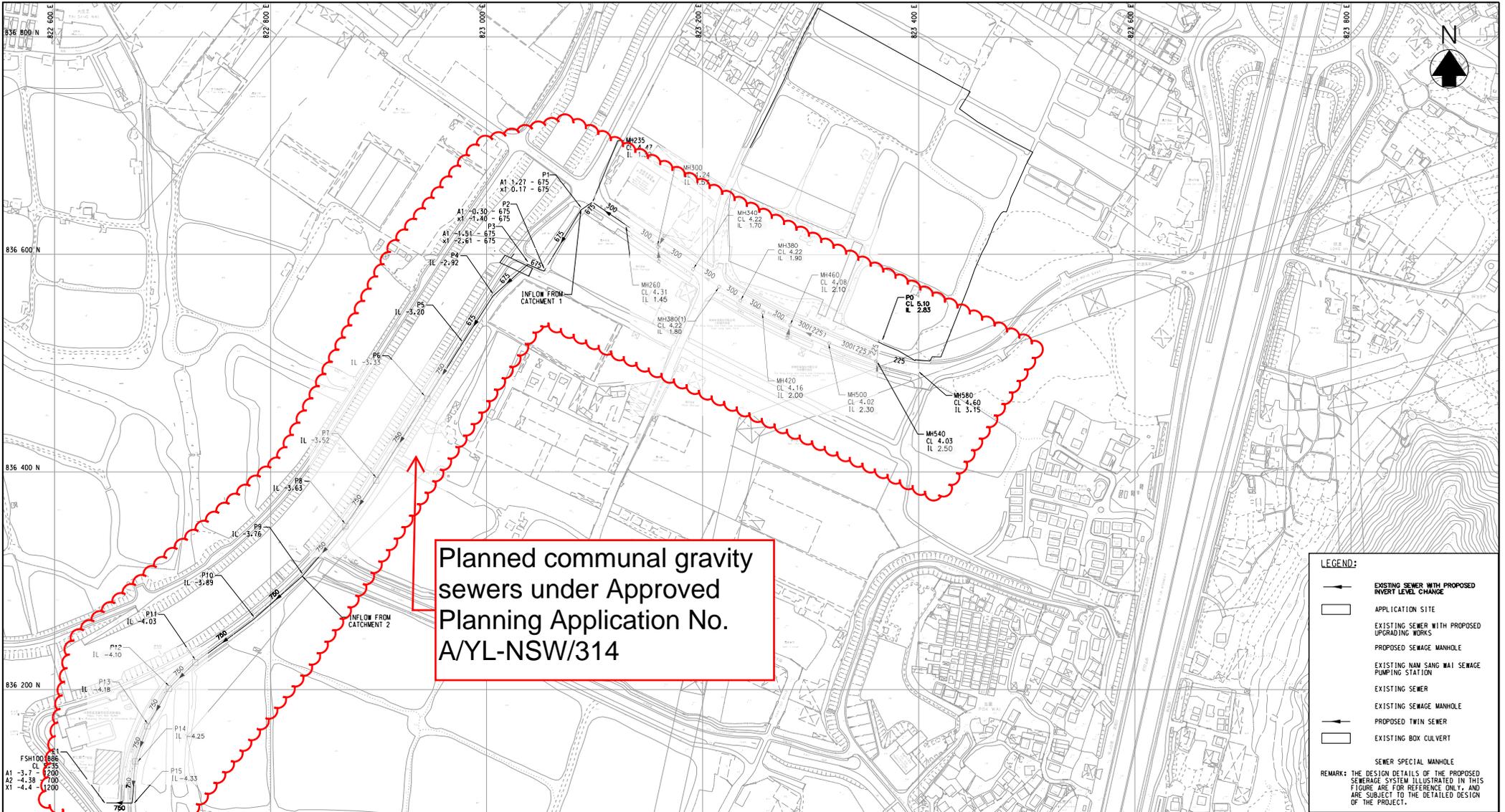
2.4.2 The average flow and the peak flow from the Application Site will be approximately 125.3 m<sup>3</sup>/day and 11.60 L/s, respectively.

**2.5 Sewerage Impact Assessment**

2.5.1 It is proposed that the sewage generated from the Proposed Development will be discharged into the existing 225mm diameter communal sewer at the south of the Application Site for disposal at YLSTW via Nam Sang Wai SPS (**Figure 2.1** refers). Relevant proposed upgrading works and proposed change in invert levels at some of the existing sewers, are also illustrated in **Figure 2.1** such as those between sewer MH540 to MH460, and between MH460 and MH235. The hydraulic checking of existing and proposed sewers starting from the discharge point to Nam Sang Wai SPS is provided in **Appendix 2.1** and it is found to be adequate to serve the Proposed Development with upgrading and modification works on several sewer segments.

2.5.2 There are existing stormwater pipe and box culvert along Pok Wai South Road, which are in vicinity of the proposed sewage system. **Planned communal gravity sewers under Approved Planning Application No. A/YL-NSW/314** drawings **2.3**.

2.5.3 It is understood there are other planned developments in the vicinity of the proposed sewer P1 to E1 as shown in **Figure 2.1**. However, none of these have a solid development schedule. The proposed sewer P1 to E1 should become public sewers. Manhole P1, P2 and P3 are designed as backdrop manhole to cater for the high velocity flow and to avoid the box culvert located at the outfall at Pok Wai South Road at the same time. In order to ensure there is sufficient capacity reserved, a sensitivity test has also been undertaken and provided in **Appendix 2.2**. It is understood that the gravity sewer P1 to E1 should have sufficient capacity to cater the additional sewage of around 15,000 m<sup>3</sup>/d due to other nearby developments (**Appendix 4.1** refers). This is considered to be a very conservative approach. It is therefore suggested to provide twin 675 mm to 750 mm gravity sewers for sewer P1 to E1 along the Pok Wai South Road. The design checking of proposed sewage system, considering a capacity of 15,000 m<sup>3</sup>/d from nearby developments, is provided in



Planned communal gravity  
sewers under Approved  
Planning Application No.  
A/YL-NSW/314

**LEGEND:**

- EXISTING SEWER WITH PROPOSED INVERT LEVEL CHANGE
- ▭ APPLICATION SITE
- EXISTING SEWER WITH PROPOSED UPGRADING WORKS
- PROPOSED SEWAGE MANHOLE
- ▭ EXISTING NAM SANG WAI SEWAGE PUMPING STATION
- EXISTING SEWER
- EXISTING SEWAGE MANHOLE
- PROPOSED TWIN SEWER
- ▭ EXISTING BOX CULVERT
- SEWER SPECIAL MANHOLE

REMARK: THE DESIGN DETAILS OF THE PROPOSED SEWERAGE SYSTEM ILLUSTRATED IN THIS FIGURE ARE FOR REFERENCE ONLY, AND ARE SUBJECT TO THE DETAILED DESIGN OF THE PROJECT.

Figure: 2.1
Title: PROPOSED SEWERAGE SYSTEM FOR THE APPLICATION SITE
Project: PLANNING APPLICATION FOR PROPOSED COMPREHENSIVE DEVELOPMENT SCHEME TO INCLUDE WETLAND RESTORATION PROPOSAL AND PROPOSED FILLING OF PONDS/LAND AND EXCAVATION OF LAND IN "OU(CDWRA)" ZONE AT VARIOUS LOTS IN D.D. 104, NORTH OF KAM POK ROAD EAST, POK WAI, YUEN LONG, NEW TERRITORIES

<b>RAMBOLL</b>	
Drawn by:	CL
Checked by:	NH
Rev:	6.1
Date:	Aug 2023

User : Che15660  
Plot date : 2023/11/16

**Appendix 2.2 Hydraulic Calculation of the Proposed Sewers for the Application Site (Sensitivity Analysis)**

**Note:**

- 1) Colebrook-White's equation is adopted for full-bore pipe velocity calculation.
- 2) Backwash Flowrate generated by swimming pool from developments, if any, has been included in the Design Peak Flowrate.
- 3) Catchment 1 is the planned development in the upstream
- 4) Catchment 2 is the application Y/YL-NSW/7, the ADFW is obtained from the approved SIA Report at October 2023

Catchment 1, ADFW = 13435 m<sup>3</sup>/day Proposed Deve. ADFW = 125.3 m<sup>3</sup>/day Catchment 2, ADFW = 1565 m<sup>3</sup>/day  
 = 13435/3600/24 = 125.3/3600/24 = 1565/3600/24  
 = 0.1555 m<sup>3</sup>/s = 0.0015 m<sup>3</sup>/s = 0.0181 m<sup>3</sup>/s

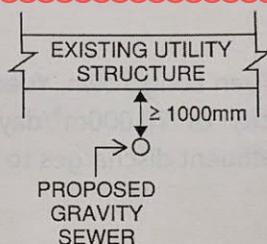
Pipe	Diameter (mm)	Diameter for calculation	Original Diameter	Upstream Invert Level (mPD)	Downstream Invert Level (mPD)	Pipe Length (m)	Gradient (1 in)	Roughness (mm)	No. of Pipes	Inflow	ADWF (m <sup>3</sup> /s)	Contributing Population	Peak Factor	Design Peak Flowrate (m <sup>3</sup> /s)	Full Bore Velocity (m/s)	Full Bore Capacity (m <sup>3</sup> /s)	Utilization (%)
P0 to MH540	225	225	225	2.83	2.50	18,910	57	3,000	1	Proposed Deve.	0.0015	464	8	0.012	1.354	0.054	21.6%
MH540 to MH500	300	300	300	2.50	2.30	46,020	230	3,000	1	Proposed Deve.	0.0015	464	8	0.012	0.819	0.058	20.0%
MH500 to MH460	300	300	300	2.30	2.10	39,640	198	3,000	1	Proposed Deve.	0.0015	464	8	0.012	0.882	0.062	18.6%
MH460 to MH420	300	300	300	2.10	2.00	27,370	274	3,000	1	Proposed Deve.	0.0015	464	8	0.012	0.751	0.053	21.9%
MH420 to MH380	300	300	300	2.00	1.90	23,630	236	3,000	1	Proposed Deve.	0.0015	464	8	0.012	0.808	0.057	20.3%
MH380 to MH300(1)	300	300	300	1.90	1.80	23,230	232	3,000	1	Proposed Deve.	0.0015	464	8	0.012	0.815	0.058	20.1%
MH380(1) to MH340	300	300	300	1.80	1.70	28,910	289	3,000	1	Proposed Deve.	0.0015	464	8	0.012	0.730	0.052	22.5%
MH340 to MH300	300	300	300	1.70	1.57	38,240	294	3,000	1	Proposed Deve.	0.0015	464	8	0.012	0.724	0.051	22.7%
MH300 to MH260	300	300	300	1.57	1.45	34,900	291	3,000	1	Proposed Deve.	0.0015	464	8	0.012	0.728	0.051	22.5%
MH260 to MH235	300	300	300	1.45	1.32	38,840	299	3,000	1	Proposed Deve.	0.0015	464	8	0.012	0.718	0.051	22.9%
MH235 to P1	300	300	300	1.32	1.27	12,590	252	3,000	1	Proposed Deve.	0.0015	464	8	0.012	0.783	0.055	21.0%
P1 to P2	675	675	675	0.17	-0.30	65,790	140	3,000	2	Catchment 1, Proposed Deve.	0.1569	50,223	4.05684	0.637	1.794	1.284	49.6%
P2 to P3	675	675	675	-1.40	-1.51	16,250	148	3,000	2	Catchment 1, Proposed Deve.	0.1569	50,223	4.05684	0.637	1.746	1.250	50.9%
P3 to P4	675	675	675	-2.61	-2.92	43,380	140	3,000	2	Catchment 1, Proposed Deve.	0.1569	50,223	4.05684	0.637	1.794	1.284	49.6%
P4 to P5	675	675	675	-2.92	-3.20	52,150	186	3,000	2	Catchment 1, Proposed Deve.	0.1569	50,223	4.05684	0.637	1.555	1.113	57.2%
P5 to P6	750	750	750	-3.20	-3.33	59,790	460	3,000	2	Catchment 1, Proposed Deve.	0.1569	50,223	4.05684	0.637	1.058	0.935	68.1%
P6 to P7	750	750	750	-3.33	-3.52	88,210	464	3,000	2	Catchment 1, Proposed Deve.	0.1569	50,223	4.05684	0.637	1.053	0.931	68.4%
P7 to P8	750	750	750	-3.52	-3.63	50,460	459	3,000	2	Catchment 1, Proposed Deve.	0.1569	50,223	4.05684	0.637	1.060	0.936	68.0%
P8 to P9	750	750	750	-3.63	-3.76	61,240	471	3,000	2	Catchment 1, Proposed Deve.	0.1569	50,223	4.05684	0.637	1.046	0.924	68.9%
P9 to P10	750	750	750	-3.76	-3.89	59,460	457	3,000	2	Catchment 1, Catchment 2, Proposed Deve.	0.1751	56,020	3.991	0.699	1.061	0.938	74.5%
P10 to P11	750	750	750	-3.89	-4.03	67,200	480	3,000	2	Catchment 1, Catchment 2, Proposed Deve.	0.1751	56,020	3.991	0.699	1.036	0.915	76.3%
P11 to P12	750	750	750	-4.03	-4.10	34,060	487	3,000	2	Catchment 1, Catchment 2, Proposed Deve.	0.1751	56,020	3.991	0.699	1.029	0.909	76.8%
P12 to P13	750	750	750	-4.10	-4.18	39,540	494	3,000	2	Catchment 1, Catchment 2, Proposed Deve.	0.1751	56,020	3.991	0.699	1.021	0.902	77.5%
P13 to P14	750	750	750	-4.18	-4.25	33,830	483	3,000	2	Catchment 1, Catchment 2, Proposed Deve.	0.1751	56,020	3.991	0.699	1.032	0.912	76.6%
P14 to P15	750	750	750	-4.25	-4.33	36,830	485	3,000	2	Catchment 1, Catchment 2, Proposed Deve.	0.1751	56,020	3.991	0.699	1.030	0.910	76.7%
P15 to E1	750	750	750	-4.33	-4.38	23,630	473	3,000	2	Catchment 1, Catchment 2, Proposed Deve.	0.1751	56,020	3.991	0.699	1.044	0.923	75.7%

Details of the planned communal gravity sewers under the Approved Application No. A/YL-NSW/314

with necessary manholes will be constructed from the Proposed Development and connect to the existing NSWSPS. No private land will be affected for making such connection.

4.1.3 As per EPD request, the proposed gravity sewers have taken account the sewage flow from other sites in the vicinity leading to NSWSPS via Pok Wai South Road. The proposed sewage disposal scheme, proposed sewer longitudinal profile and calculations of design flow and manhole schedule are shown in **Figure 2**, **Figure 3** and **Annex 4** respectively. Clearance of not less than 1000mm will be maintained between the proposed sewers and existing utility structures (i.e. 2 cells 4000x2950 Box Culvert at J/O Kam Pok Road and Pok Wai West Road and 4 cells 2500x2000 trunk box culvert at Pok Wai South Road near Pok Wai West Road).

planned communal gravity sewers under Approved Planning Application No. Y/YL-NSW/7



Section showing the interface between existing utility structure and proposed gravity sewer

4.1.4 The design capacity of NSWSPS is 42,921m<sup>3</sup>/day in ADWF and the average daily flow recorded in December 2021 is around 3,600m<sup>3</sup>/day (see **Annex 3**). Based on the calculations shown in **Table 2**, the estimated sewage to be generated from the Proposed Development is 1,565m<sup>3</sup>/day, which is only equivalent to 3.6% of existing NSWSPS design capacity and 2.2% of existing YLSTW design capacity. Therefore, it is considered that sewage generated by the Proposed Development would not overload NSWSPS and YLSTW.

4.1.5 A matrix for different type of proposed sewerage system is provided in **Table 3** to summarize the construction and maintenance responsibilities.

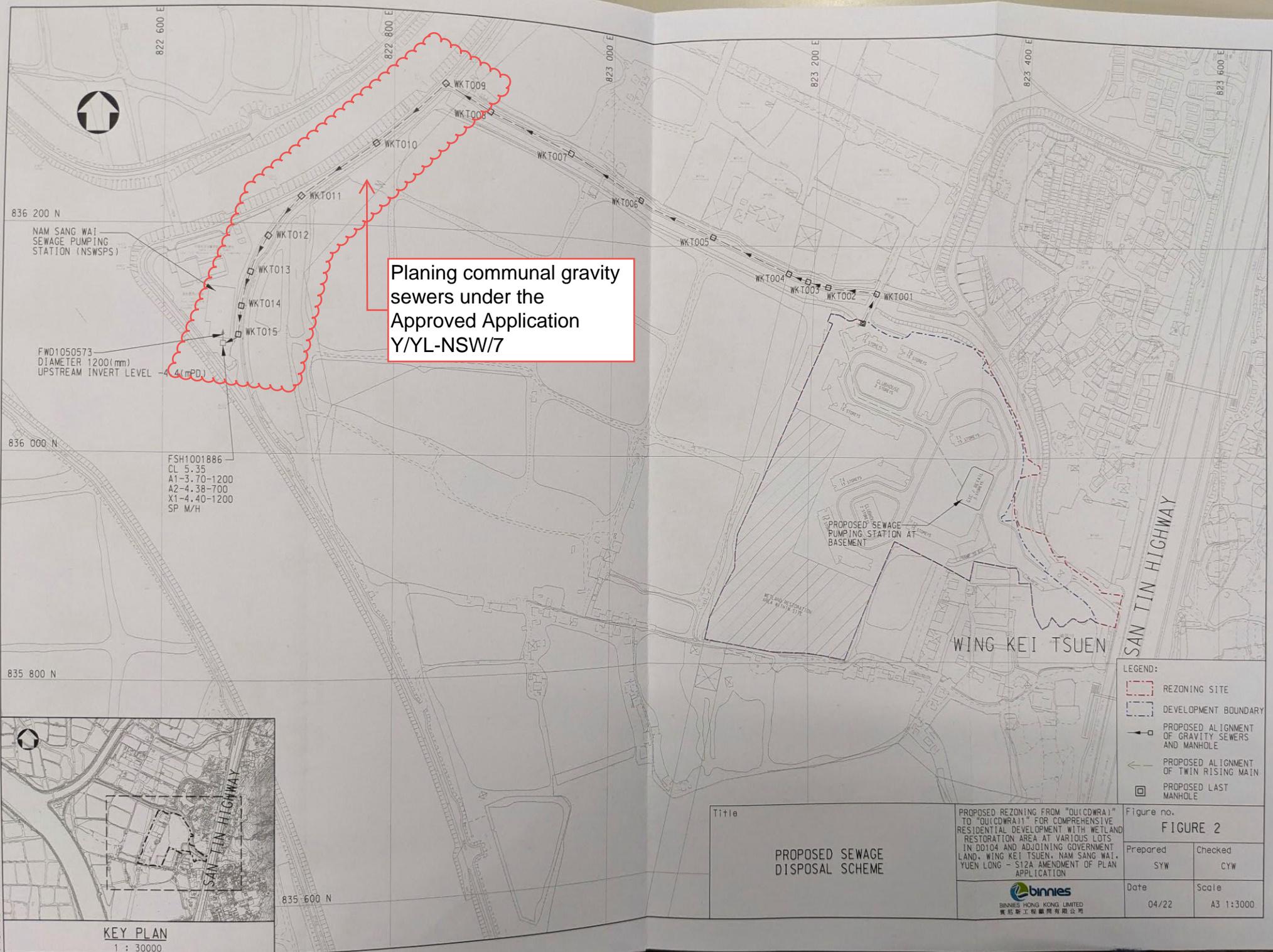
**Table 3 – Matrix of construction and maintenance responsibilities**

Element	Location	Construction Responsibility	Maintenance Responsibility
Proposed Sewage Pumping Station	Within Development Boundary	The Developer	The Developer
Proposed Rising Mains	Within Development Boundary	The Developer	The Developer
Proposed Terminal Manhole	Within Development Boundary	The Developer	The Developer
Proposed Sewers and Manholes	Outside Development Boundary	The Developer	DSD

## 5. EVALUATION OF THE STRATEGY AND RECOMMENDATIONS

### 5.1 Regional sewerage strategy

Matrix of construction and maintenance responsibilities under the Approved Application Y/YL-NSW/7



Planing communal gravity sewers under the Approved Application Y/YL-NSW/7

NAM SANG WAI SEWAGE PUMPING STATION (NSWSPS)

FWD1050573  
DIAMETER 1200(mm)  
UPSTREAM INVERT LEVEL -4.4(mPD)

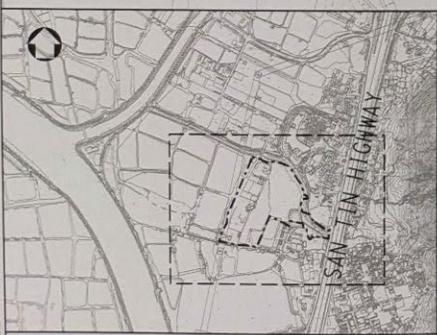
FSH1001886  
CL 5.35  
A1-3.70-1200  
A2-4.38-700  
X1-4.40-1200  
SP M/H

PROPOSED SEWAGE PUMPING STATION AT BASEMENT

WING KEI TSUEN

LEGEND:

- REZONING SITE
- DEVELOPMENT BOUNDARY
- PROPOSED ALIGNMENT OF GRAVITY SEWERS AND MANHOLE
- PROPOSED ALIGNMENT OF TWIN RISING MAIN
- PROPOSED LAST MANHOLE



KEY PLAN  
1 : 30000

Title  <b>PROPOSED SEWAGE DISPOSAL SCHEME</b>	Figure no. <b>FIGURE 2</b>	
	Prepared SYW	Checked CYW
Date 04/22		Scale A3 1:3000

PROPOSED REZONING FROM "QUICDWR1" TO "QUICDWR11" FOR COMPREHENSIVE RESIDENTIAL DEVELOPMENT WITH WETLAND RESTORATION AREA AT VARIOUS LOTS IN DD104 AND ADJOINING GOVERNMENT LAND, WING KEI TSUEN, NAM SANG WAI, YUEN LONG - S12A AMENDMENT OF PLAN APPLICATION



BINNIES HONG KONG LIMITED  
賓尼新工程顧問有限公司

Plot date : 8/3/2022

**PROPOSED REZONING FROM "OU(CDWRA)" TO "OU(CDWRA)1"  
FOR COMPREHENSIVE RESIDENTIAL DEVELOPMENT WITH WETLAND RESTORATION AREA  
AT VARIOUS LOTS IN DD104 AND ADJOINING GOVERNMENT LAND,  
WING KEI TSUEN, NAM SANG WAI, YUEN LONG – S12A AMENDMENT OF PLAN APPLICATION**

**Manhole Schedule - Wing Kei Tsuen**

Manhole No.	Manhole type	Backdrop manhole required	Manhole type (Combine)	To Manhole	From Manhole	Ground Level (mPD)	PIPE IN			PIPE OUT			
							Invert Level (mPD)	Pipe Size (mm) DN	Pipe Size (mm) OD	Invert Level (mPD)	IL Check	Pipe Size (mm) DN	Pipe Size (mm) OD
WKT000	L	-	L	WKT001	WKT000	4.70	-0.27	351.35	400.00	-0.36	OK	351.35	400.00
WKT001	L	No	L	WKT002	WKT001	4.60	-0.36	491.85	560.00	-0.50	OK	491.85	560.00
WKT002	L	No	L	WKT003	WKT002	4.90	-0.50	491.85	560.00	-0.56	OK	491.85	560.00
WKT003	L	No	L	WKT004	WKT003	4.85	-0.56	491.85	560.00	-0.63	OK	491.85	560.00
WKT004	L	No	L	WKT005	WKT004	4.80	-0.63	491.85	560.00	-0.90	OK	491.85	560.00
WKT005	L	No	L	WKT006	WKT005	4.75	-0.90	491.85	560.00	-1.16	OK	491.85	560.00
WKT006	L	No	L	WKT007	WKT006	4.70	-1.16	491.85	560.00	-1.43	OK	491.85	560.00
WKT007	L	No	L	WKT008	WKT007	4.50	-1.43	491.85	560.00	-1.70	OK	491.85	560.00
WKT008	Special Type 1	No	Special Type 1	WKT009	WKT008	4.70	-1.70	491.85	560.00	-1.85	OK	491.85	560.00
WKT009	L	No	L	WKT010	WKT009	4.20	-1.85	623.60	710.00	-2.11	OK	623.60	710.00
WKT010	L	No	L	WKT011	WKT010	4.00	-2.11	623.60	710.00	-2.38	OK	623.60	710.00
WKT011	Special Type 1	No	Special Type 1	WKT012	WKT011	4.15	-2.38	623.60	710.00	-2.53	OK	623.60	710.00
WKT012	Special Type 1	No	Special Type 1	WKT013	WKT012	4.20	-2.53	623.60	710.00	-2.65	OK	623.60	710.00
WKT013	Special Type 1	No	Special Type 1	WKT014	WKT013	4.15	-2.65	623.60	710.00	-2.75	OK	623.60	710.00
WKT014	Special Type 1	No	Special Type 1	WKT015	WKT014	4.10	-2.75	623.60	710.00	-2.83	OK	623.60	710.00
WKT015	Special Type 1	No	Special Type 1	Existing	WKT015	4.05	-2.83	623.60	710.00	-2.88	OK	623.60	710.00

Manhole No.	Material of pipe	Velocity (m/s)	Velocity check	Cumulative Design Flow (m3/s)	Full Bore Capacity (m3/s)	Full Bore Capacity with 10% reduction (m3/s)	Usage percentage (%)	Capacity check	TYPE OF BEDDING
WKT000	HDPE	1.22	OK	0.072	0.118	0.107	67.98	OK	TYPE B BEDDING
WKT001	HDPE	1.51	OK	0.166	0.287	0.258	64.46	OK	TYPE B BEDDING
WKT002	HDPE	1.51	OK	0.166	0.287	0.258	64.46	OK	TYPE B BEDDING
WKT003	HDPE	1.51	OK	0.166	0.287	0.258	64.46	OK	TYPE B BEDDING
WKT004	HDPE	1.51	OK	0.166	0.287	0.258	64.46	OK	TYPE B BEDDING
WKT005	HDPE	1.51	OK	0.166	0.287	0.258	64.46	OK	TYPE B BEDDING
WKT006	HDPE	1.51	OK	0.166	0.287	0.258	64.46	OK	TYPE B BEDDING
WKT007	HDPE	1.51	OK	0.166	0.287	0.258	64.46	OK	TYPE B BEDDING
WKT008	HDPE	1.51	OK	0.166	0.287	0.258	64.46	OK	TYPE B BEDDING
WKT009	HDPE	1.75	OK	0.320	0.535	0.481	66.56	OK	TYPE B BEDDING
WKT010	HDPE	1.75	OK	0.320	0.535	0.481	66.56	OK	TYPE B BEDDING
WKT011	HDPE	1.75	OK	0.320	0.535	0.481	66.56	OK	TYPE B BEDDING
WKT012	HDPE	1.75	OK	0.320	0.535	0.481	66.56	OK	TYPE B BEDDING
WKT013	HDPE	1.75	OK	0.320	0.535	0.481	66.56	OK	TYPE B BEDDING
WKT014	HDPE	1.75	OK	0.320	0.535	0.481	66.56	OK	TYPE B BEDDING
WKT015	HDPE	1.75	OK	0.320	0.535	0.481	66.56	OK	TYPE B BEDDING

Details of the planned communal gravity sewers under the Approved Application No. Y/YL-NSW/7

Manhole No.	Velocity (m/s)	Capacity (m3/s)
WKT008	45.00	300
WKT009	80.00	300
WKT010	45.00	300
WKT011	35.00	300
WKT012	30.00	300
WKT013	25.00	300
WKT014	15.00	300

**Table 4-2: Comparison of Additional Sewage Flow with Capacity of Public Sewerage**

Sewerage Facilities	Design Capacity (m <sup>3</sup> /day) <sup>(1)</sup>	Current Average Daily Flow (m <sup>3</sup> /day)	Estimated Future Flow <sup>(2)</sup> (m <sup>3</sup> /day)	Total Future Flow (m <sup>3</sup> /day)	Spare Capacity (m <sup>3</sup> /day)
<b>NSWSPS</b>	42,921	3,900	16,561	20,461	22,460

Notes:

- 1) For NSWSPS and YLEPP, the design capacity and current average daily flow comparison refer to ADWF.
- 2) The estimated future flow includes the EPD initial estimation for the communal gravity sewers (i.e., 15,500 m<sup>3</sup>/d) and the estimated sewage flow from light public housing (i.e., 1,061 m<sup>3</sup>/d). The estimated sewage flow from light public housing is based on the technical schedule of "Light Public Housing at Yau Pok Road, Yuen Long - Project Profile". **Appendix 3 and 4** refers.

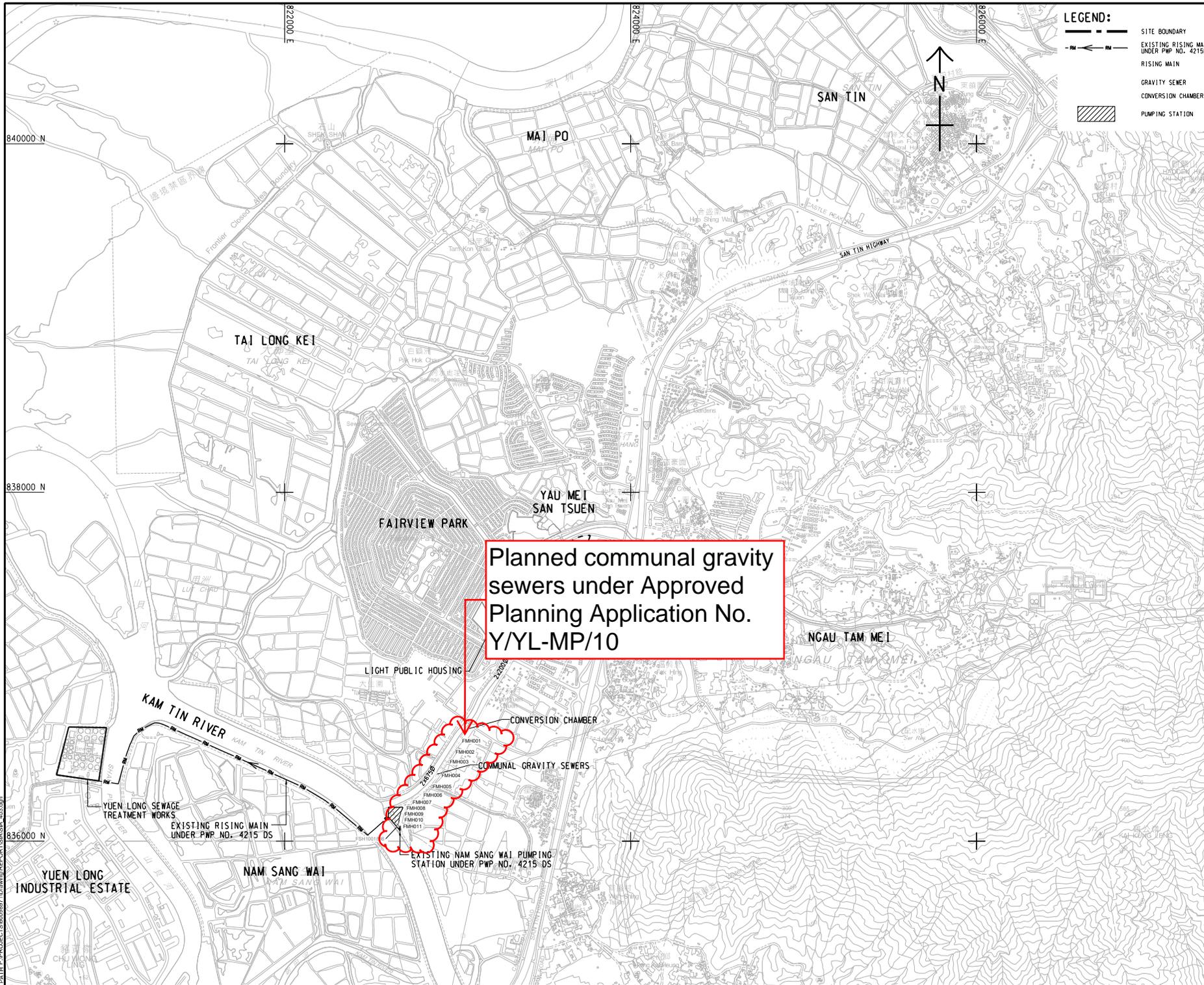
4.2.2. The sewage from the Development (i.e. 1,973m<sup>3</sup>/day) merely occupies 5% of the design capacity of existing NSWSPS, 2% of the design capacity of existing YLEPP (phase I) and 1% of the design capacity of planned YLEPP (Phase II). Hence no adverse impact on the existing NSWSPS, existing YLEPP (Phase I) and planned YLEPP (Phase II) is envisaged. The assessment also shows that the existing and planned sewerage system would be sufficient to cater for the proposed development.

4.2.3. It is noted a light public housing site is located within the vicinity. The location of the light public housing site is as shown in **Figure 3**. The sewage (i.e. ADWF=1,061m<sup>3</sup>/day) generated will be conveyed to NSWSPS via exclusive sewage rising mains from the site only.

**4.3. Proposed Planned communal gravity sewers under Approved Planning Application No.**

4.3.1. The sewage from the proposed development will be conveyed to a private underground sewage pumping station (SPS) located at the western boundary of the site. It is proposed that twin 200mm dia. rising mains will lay along Kam Pok Road to convey the sewage to a proposed common conversion chamber at Pok Wai South Road. The conversion chamber connected to proposed communal gravity sewers downstream is designed to cater for other existing and planned developments within the area. The proposed communal gravity sewers and manholes also facilitate future discharge of sewage from other development in the vicinity. The proposed downstream communal gravity sewers and manholes are proposed public sewerage system serving multiple users. The sewer will be constructed to discharge the sewage from the proposed development to the existing NSWSPS and ultimately discharge to YLEPP. The proposed alignment of the rising mains and the gravity sewers is shown in **Figure 3**. The tentative location of the proposed private SPS is shown in **Figure 4**.

4.3.2. Hydraulic checking of the proposed rising mains has been conducted. It is found to be adequate to serve the proposed development, **Appendix 2** refers.



**LEGEND:**

- SITE BOUNDARY
- EXISTING RISING MAIN UNDER P/WP NO. 4215DS
- RISING MAIN
- GRAVITY SEWER
- CONVERSION CHAMBER
- ▨ PUMPING STATION



**PROJECT**  
 S.12A PLANNING APPLICATION ON THE DRAFT MAI PO & FAIRVIEW PARK OZP NO. S/YL-MP/7  
 REZONING FROM "RESIDENTIAL (GROUP D)" TO "RESIDENTIAL (GROUP C) 1" ZONE FOR A PROPOSED RESIDENTIAL DEVELOPMENT AT VARIOUS LOTS IN D.D. 104 AND THE ADJOINING GOVERNMENT LAND IN YUEN LONG, N.T.

**CLIENT**

**CONSULTANT**  
 AECOM Asia Company Ltd.  
 www.aecom.com

**SUB-CONSULTANTS**

**ISSUE/REVISION**

NO.	DATE	DESCRIPTION	CHK.

**STATUS**

SCALE	DIMENSION UNIT
A3 1:20000	METRES

**KEY PLAN**

<b>PROJECT NO.</b> 60098971	<b>AGREEMENT NO.</b> 60098971
<b>SHEET TITLE</b> EXISTING AND PLANNED SEWERAGE NETWORK PLAN	
<b>SHEET NUMBER</b> 60098971/SIA/FIGURE 3	

V of water = 0.000001 m<sup>3</sup>/s 20 °C

Manhole No.		Cover Level				Invert Level				Pipe											Remark
U/S	D/S	U/S	D/S	U/S	D/S	Nominal Outside Diameter (OD) mm	Nominal Diameter (DN) mm	Length m	Flow Area m <sup>2</sup>	Pipe Gradient (1 in )	Pipe Velocity m/s	Capacity (Twin Pipe) m <sup>3</sup> /s	Roughness <sup>(4)</sup> mm	Accumulated ADWF <sup>(5)</sup> m <sup>3</sup> /d	Contributing Population	Peaking Factor <sup>(6)</sup>	Estimated Peak Discharge m <sup>3</sup> /s	Capacity Check %			
		mPD	mPD	mPD	mPD																
Conversion Chamber	FMH001	4.50	4.50	-2.68	-2.87	800	675	75.0	0.36	400	1.09	0.78	1.5	15,500	57,408	3.98	0.713	91			
FMH001	FMH002	4.50	4.55	-2.87	-3.04	800	675	70.0	0.36	400	1.09	0.78	1.5	15,500	57,408	3.98	0.713	91			
FMH002	FMH003	4.55	4.60	-3.04	-3.22	800	675	70.0	0.36	400	1.09	0.78	1.5	15,500	57,408	3.98	0.713	91			
FMH003	FMH004	4.60	4.65	-3.22	-3.41	800	675	75.0	0.36	400	1.09	0.78	1.5	15,500	57,408	3.98	0.713	91			
FMH004	FMH005	4.65	4.20	-3.41	-3.61	800	675	80.0	0.36	400	1.09	0.78	1.5	15,500	57,408	3.98	0.713	91			
FMH005	FMH006	4.20	4.00	-3.61	-3.81	800	675	80.0	0.36	400	1.09	0.78	1.5	15,500	57,408	3.98	0.713	91			
FMH006	FMH007	4.00	4.15	-3.81	-4.01	800	675	80.0	0.36	400	1.09	0.78	1.5	15,500	57,408	3.98	0.713	91			
FMH007	FMH008	4.15	4.20	-4.01	-4.12	800	675	45.0	0.36	400	1.09	0.78	1.5	15,500	57,408	3.98	0.713	91			
FMH008	FMH009	4.20	4.15	-4.12	-4.21	800	675	35.0	0.36	400	1.09	0.78	1.5	15,500	57,408	3.98	0.713	91			
FMH009	FMH010	4.15	4.10	-4.21	-4.28	800	675	30.0	0.36	400	1.09	0.78	1.5	15,500	57,408	3.98	0.713	91			
FMH010	FMH011	4.10	4.05	-4.28	-4.34	800	675	25.0	0.36	400	1.09	0.78	1.5	15,500	57,408	3.98	0.713	91			
FMH011	FSH1001886	4.05	5.35	-4.34	-4.38	800	675	15.0	0.36	400	1.09	0.78	1.5	15,500	57,408	3.98	0.713	91			

Note:

1. Contributing population = Projected Flow + Flow from Development (ADWF in m<sup>3</sup>/day) / 0.27 (m<sup>3</sup>/person/day).
2. Peaking factor with stormwater allowance is adopted.
3. The proposed gravity sewer shall be constructed to discharge the sewage to from the both R(D) and REC Development and other residential development which has similar sewerage arrangement in the vicinity to the existing NSWSPS and ultimately to YLEPP.
4. Concrete sewers slied to about half depth; velocity, when flowing half full, approximately 1.2 m/s, normal condition is as
5. Base on EPD initial estimation, the communal gravity sewer need to cater for design sewage flow of at least 15,500 m<sup>3</sup>/d.
6. The communal gravity sewer is subject to detailed design, the hydraulic calculation demonstrate the feasibility in terms of

Details of the planned communal gravity sewers under the Approved Application No. Y/YL-MP/10