PLANNING LIMITED
規劃顧問有限公司

[redacted]

By Email & Hand

Our Ref: S3040b/WYSE/21/003Lg

10 July 2026

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

Dear Sir/Madam,

Proposed Flat with Shop and Services, Eating Place and Social Welfare Facility Uses and Minor Relaxation of Plot Ratio and Building Height Restrictions at 21-35 Wang Yip Street East in Yuen Long (Planning Application No. A/YL/332)

- Further Information No. 1 -

This supersedes the Further Information submitted on 3 July 2026 vide our letter ref.: S3040b/WYSE/21/002Lg

Reference is made to the captioned S16 Planning Application submitted to the Town Planning Board ("TPB") on 15 May 2026 and the comments received from the Tuen Mun and Yuen Long West District Planning Office between 15 June 2026 and 18 June 2026.

In response to the departmental comments received, please find attached the Further Information ("F.I.") submission. The submission document consists of:

- Response-to-Comment Table
- Revised Supporting Planning Statement
- Revised pages of the Application Form

Please be kindly confirmed that the attached revised Supporting Planning Statement contains a revised development scheme that has the following major development parameters:

Major Development Parameters of the Proposed Development Scheme (rev)			
Total Site Area	7,271m^2 (approx.)		
	Domestic	Non-domestic	Total
Maximum Plot Ratio	6.0	0.22*	6.22
GFA (approx.)	43,626m^2	1,600m^{2*}	45,226m^2

FS 579819

Our Ref: S3040b/WYSE/21/003Lg
Date: 10 July 2026

Major Development Parameters of the Proposed Development Scheme (rev)	
No. of Blocks	2
No. of Units	1,068
Average Flat Size	About 40.8m^2
Building Height	29 – 31 storeys/ 105.7 – 112.7mPD
Domestic Site Coverage	Not more than 33%
Non-domestic Site Coverage	Not more than 92%
Anticipated Population	2,777
Private Open Space	Not less than 2,777m^2
Internal Transport Provision – Residential and Commercial Portion	
Private Car Parking Spaces	150
Motorcycle Parking Spaces	13
L/UL Bay	3 HGV and 1 LGV
Bicycle parking spaces	143
Internal Transport Provision – Proposed Welfare Facilities**	
Light Bus Parking Spaces	1 space for Home Care Services (HCS) for Frail Elderly Persons
Ambulance / Private Light Bus Lay-by	1
L/UL Bay (for shared use)	1 HGV

* GFA that is constructed or intended for use solely as GIC facilities (about 422.1m^2), as required by the Government, has been disregarded

** Required by Social Welfare Department for operational needs

Meanwhile, should you have any queries in relation to the attached, please do not hesitate to contact Mr Kenneth To or the undersigned at [redacted].

Thank you for your kind attention.

Yours faithfully
For and on behalf of
KTA PLANNING LIMITED

Gladys Ng

Encl. (4 hard copies)

cc. TM&YLW DPO – Ms Zoe Lau/ Ms Carmen Cheung (By Email)
the Applicant & Team

KT/GN/vy

Comments	Response
Comments of Director of Lands: **(Contact Person: Ms Ida WONG, Tel.: 2155 2443)**	
General Comments i. The Site falls within Yuen Long Town Lot No. 362 ("the Lot"), which has an area of 7,271m2 (about). The Lot is held under New Grant No. 3121 dated 27.11.1981 as varied and modified by a Modification Letter dated 22.1.1987 and a Modification Letter dated 11.6.2026 (collectively referred to as "the New Grant"). Under the New Grant, the Lot is permitted to be used for non-industrial (excluding godown, hotel and petrol filling station) purposes and is subject to a maximum total gross floor area of 45,226m^2, of which the total gross floor area for private residential purpose shall not exceed 43,626m^2.	Noted.
ii. According to the subject planning application, the owner of the Site (i.e. the applicant) has applied for relaxation of domestic plot ratio from 5.0 under the Outline Zoning ("OZP") to 6.5 (involving domestic gross floor area of 47,262m^2) and building height restriction from 85mPD under the OZP to 114.8mPD to facilitate the development of a commercial-cum-residential development with social welfare facilities on the Site. The proposed development prarameters are in contravention of the development restrictions under the New Grant.	Noted.
Advisory Comments i. Should the planning application be approved by the TPB, the	Noted.

Comments	Response
applicant is required to apply for a lease application of the Lot for the proposed development. Such application will be considered by LandsD acting in its capacity as the landlord at its sole discretion and there is no guarantee that such application will be approved. If such application is approved, it will be subject to such terms and conditions including among others, the payment of such appropriate fees and premium, as may be imposed by LandsD.	
ii. The proposed schematic design would only be examined in detail during the building plan submission stage upon completion of the lease modification in taking forward the planning approval in the future (if any). There is no guarantee that the schematic design as presented in the planning application if reflected in future building plan submission(s) will be acceptable under lease.	Noted.
Comments of Chief Highway Engineer/New Territories West, Highways Department: **(Contact Person: Mr Stanley CHOI, Tel.: 2762 4905)**	
no in principle objection to the captioned planning application, please find the following comments from the highway maintenance point of view:	The no in principle objection is noted.
(a) It is noted that there are two vehicular access points, at Wang Yip Street East and Po Yip Streetrespectively, proposed by the applicant. The proposed access arrangement of the application site should be commented and approved by TD.	Noted.

Comments	Response
(b) If the proposed access points are approved by TD, the applicant should ensure a run-in/out 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.
(c) Adequate drainage measures shall be provided to prevent surface water running from the application site to the nearby public roads and drains.	Noted.
Comments of Director of Fire Services: **(Contact Person: Mr YUEN Tsz-fung, Tel.: 2733 7781)**	
i) Detailed fire safety requirements will be formulated upon receipt of a formal submission of Short Term Tenancy or Short Term Waiver, general building plans or referral of the application via the relevant licensing authority.	Noted.
ii) The provision of emergency vehicular access in the subject work shall comply with the requirements as stipulated in Section 6, Part D of the Code of Practice for Fire Safety in Buildings 2011.	Noted.

Comments	Response
Comments of the Head of the Geotechnical Engineering Office, Civil Engineering and Development Department: **(Contact Person: Ms Celia YANG, Tel.: 2762 5372)**	
3. Please remind the applicant of the requirements of making necessary submission(s) of the proposed building works to the Buildings Department for approval as required under the provision of the Building Ordinance if found applicable.	Noted.
4. Please remind the application that the subject site is located within Scheduled Area No.2 and may be underlain by cavernous marble. Depending on the nature of the proposed foundation, if necessary, of the new development at the subject site, extensive geotechnical investigation may be required. Such investigation may require a high level of involvement of an experienced geotechnical engineer both in the design and in the supervision of the geotechnical works rquired in the subject site.	Noted.
Comments of the Director of Food and Environmental Hygiene: **(Contact Person: Mr Raymond CHAN, Tel.: 3141 1231)**	
i) No Food and Environmental Hygiene Department's (FEHD) facilities should be affected.	Noted.

Comments	Response
ii) Proper licence / permit issued by this Department is required if there is any food business / catering service / activities regulated by the Director of Food and Environmental Hygiene (DFEH) under the Public Health and Municipal Services Ordinance (Cap. 132) and other relevant legislation for the public. In accordance with Section 4 of Food Business Regulation, Cap.132X, the expression 'food business' means any trade or business for the purpose of which any person engages in the handling of food or food is sold by means of a vending machine but does not include any canteen in work place (other than a factory canteen referred to in section 31) for the use exclusively of the persons employed in the work place. As such, a staff canteen that exclusively use by the staff members of that working place does not require a food business licence from this department. However, if the said canteen provided foods to the outsiders with payment, a food business licence is required.	Noted.
iii) Pursuant to section 4 of the Food Business Regulation (Cap. 132X), the expression of "food business" does not include any club.	Noted.
iv) Proper licence issued by this Department is required if related place of entertainment is involved. Any person who desires to keep or use any place of public entertainment for example a theatre and cinema or a place, building, erection or structure, whether temporary or permanent, on one occasion or more,	Noted.

Comments	Response
capable of accommodating the public presenting or carrying on public entertainment within Places of Public entertainment (PPE) Ordinance (Cap. 172) and its subsidiary legislation, such as a concert, opera, ballet, stage performance or other musical, dramatic or theatrical entertainment, cinematograph or laser projection display, a circus, a lecture or story-telling, an exhibition of any 1 or more of the following, namely, pictures, photographs, books, manuscripts or other documents or other things, a sporting exhibition or contest, a bazaar, a dance part or an amusement ride and mechanical device which is designed for amusement, a Place of Public Entertainment Licence (or Temporary Place of Public Entertainment Licence) should be obtained from FEHD whatever the general public is admitted with or without payment.	
v) A swimming pool licence must be obtained from FEHD for any artificially constructed pool used for swimming or bathing and to which the public have access (whether on payment or otherwise) or which is operated by any club, institution, association or other organization. A swimming pool licence is not required for any swimming pool which serves not more than 20 residential units and to which the public have no access.	Noted.
vi) There should be no encroachment on the public place and no environmental nuisance should be generated to the surroundings. Its state should not be a nuisance or injurious or dangerous to health and surrounding environment. Also, for any waste generated from such activities/ operation, the applicant should	Noted.

Comments	Response
arrange disposal properly at their own expenses.	
vii) If provision of cleansing service for new public roads, streets, cycle tracks, footpaths, paved areas etc, is required, FEHD should be separately consulted. Prior consent from FEHD must be obtained and sufficient amount of recurrent cost may have to be provided to us.	Noted.
viii) If domestic waste collection service of FEHD is required in future, prior comments from this Department on the waste collection plan, including the accessibility and maneuverability of RCV to RCP, should be sought.	Noted.
Comments of the Director of Electrical and Mechanical Services: **(Contact Person: Mr HT CHEUNG, Tel.: 2808 3113)**	
Electricity Safety	
Please be advised that we have no particular comment on the document from electricity supply safety aspect. However, in the interests of public safety and ensuring the continuity of electricity supply, the parties concerned with planning, designing, organising and supervising any activity near the underground cable (and overhead line, where applicable) under the mentioned document should approach the electricity supplier (i.e. CLP) for the requisition of cable plans (and overhea line alignment drawings, where applicable) to find out whether	The no particular comment from electricity supply safety aspect is noted.

Comments	Response
there is any underground cable and/or overhead line in the vicinity of the concerned site. They should also be reminded to observe the Electricity Supply Lines (Protection) Regulation and the "Code of Practice on Working near Electricity Supply Lines" established under the Regulation when carrying out works in the vicinity of the electricity supply lines. We have no particular comment on the document as far as electricity supply safety is concerned.	 Noted.
Comments of the Director of Environmental Protection: **(Contact Person: Mr William WONG, Tel.: 2835 1267)** **Air Quality** 1. Section 2.1.1 (a) The potential odour impact should be assessed. Please supplement. (b) Please revise "constraint" in line 1 to "impact". 2. Table 2.1 - Suggest to supplement the full name of pollutants (e.g. Sulphur Dioxide (SO2), etc.).	 *Appendix IV of the revised Supporting Planning Statement refers* Relevant information has been supplemented. Noted, corresponding text has been revised accordingly. Relevant information has been supplemented.

Comments	Response
3. Section 2.3.1 and Table 2.4 - there should be no exceedance of annual average of RSP, peak season O3 and CO, please revise Section 2.3.1 and update Table 2.4.	S.2.3.1 and Table 2.4 have been updated.
4. Section 2.3.2 and Table 2.4	
(a) Please delete "hourly" in line 2.	Noted, corresponding text has been deleted accordingly.
(b) The PATH grids should be (25,47) and (26,47) instead of (25,47) and (28,47), please revise.	S.2.3.2 and Table 2.4 have been revised accordingly.
(c) The PATH data shown in Table 2.4 and the exceedances presented in Section 2.3.2 are incorrect, please check and update.	Relevant data have been checked and updated.
5. Section 2.4.1	
(a) Please revise "Traffic Census" in line 3 to "latest Annual Traffic Census (ATC)".	Noted, corresponding text has been revised accordingly.
(b) Please add "while the road types of Po Yip Street, Keung Yip Street and Wang Yip Street East are not available in the latest ATC" after "Primary Distributor" in the last line.	Noted, text has been added accordingly.
6. Section 2.4.2	
(a) Please provide the previous reply from TD. According to Section 1.4.4, the previous advice from TD is contained in Appendix 3.1 but no	Reply from TD has been supplemented in Appendix 2.2.

Comments	Response
relevant information can be found.	
7. Section 2.4.4	
(a) Please confirm if "the residential towers of the proposed development" in lines 3-4 can be revised as "the nearest air sensitive uses of the Application Site".	Noted, relevant text has been updated accordingly.
(b) Please confirm if "the proposed development" in line 5 can be revised as "the nearest air sensitive uses of the Application Site".	Noted, relevant text has been updated accordingly.
(c) Please confirm if "the Proposed Development" in line 7 can be revised as "the nearest air sensitive uses of the Application Site".	Noted, relevant text has been updated accordingly.
(d) Please confirm if "and no opening will be located within the 5m buffer zone" in lines 9-10 can be revised as "such that no air sensitive uses of the Application Site including openable window, fresh air intake and recreational use in open space shall be located within the 5m buffer zone".	Noted, relevant text has been updated accordingly.
8. Section 2.4.6 - Please add "only" after "planters" in line 3.	Noted, relevant text has been added accordingly.

Comments	Response
9. Section 2.4.7	
(a) ProPECC PN 2/96 Control of Air Pollution in Car Parks should be observed and followed for the proposed carpark, please supplement and replace with the 2nd sentence.	Noted, the proposed car park will comply with the ProPECC PN 2/96. S.2.4.7 has been updated accordingly.
(b) Also please supplement more information of the proposed carpark (e.g. no. of parking space for private cars, motorcycles against heavy goods vehicles, etc.) to justify if the potential air quality impact is limited.	Noted, the no. of parking spaces for different vehicle classes have been provided in Table 2.6.
(c) Please revise "not considered significant" in line 6 to "expected to be limited".	Noted, relevant text has been updated accordingly.
(d) Please indicate the location and direction of the potential mechanical ventilation exhaust in a figure to support it will be located away from the nearby air sensitive uses as far as practicable, if the information is available.	The location and direction of the potential mechanical ventilation exhaust have been indicated in Figure 2.2.
10. Section 2.5.1	
(a) Suggest to delete "covering area around the Application Site (walking along public roads))," in lines 3-4.	The relevant text has been deleted accordingly.
(b) Please revise "from" in line 5 to "assessment area of".	Noted, relevant text has been updated accordingly.

Comments	Response
(c) Please confirm if there is no existing and planned chimney/industrial emission identified within the 500m assessment area. If affirmative, please add "and existing and planned chimney/industrial emission identified" after "designated industrial area" in line 4, and delete the 2nd sentence "There is also no industrial undertaking and chimney observed within 200m from the Application Site.".	Noted, relevant text has been updated accordingly.
(d) Based on the preliminary review, the Application Site is surrounded by some industrial buildings with some vehicle repair workshops. Please review and confirm if there is any heavy industrial operation or dusty use identified such that adverse I/R interface problem will be anticipated.	Noted. Discussion on I/R interface problem has been supplemented in S.2.5. It is confirmed that no heavy industrial operation or dusty use identified at the adjacent areas based on site surveys. Thus, no adverse I/R interface problem will be anticipated.
11. Section 2.5.2	
(a) Please add "chimney/industrial" before "emission" in line 1, and revise "at the vicinity" in line 1 to "within the 200m buffer distance". Also please supplement that the HKPSG buffer distance requirement can be fulfilled.	Noted, relevant text has been updated accordingly.
(b) We would like to remind the applicant that it should be the responsibility of the applicant and their consultant to ensure the validity of the chimney data. Should the information of industrial chimneys be subsequently found to be incorrect, the assessment results as presented in the submission would be invalidated.	Noted.

Comments	Response
12. Odour impact	
(a) The odour impact should be assessed. Please review if there is any potential odour emission source (e.g. Shan Pui River, nullahs, livestock farms, STW/SPS and temples with joss paper burning, etc.) within the 500m assessment area and assess their odour impacts by referring to the buffer distance requirements under Sections 3.3.5 to 3.3.9 of HKPSG Chapter 9 Environment.	Noted. Potential odour emission sources within 500m assessment area have been identified. Odour impact for identified sources within 200m buffer distance has been assessed in S.2.6.
(b) Please advise if there is any potential odour emission source (e.g. on-site SPS, refuse collection points, etc.) within the Application Site, their odour impacts should also be assessed accordingly.	It is confirmed that no potential odour emission source (e.g. on-site SPS, refuse collection points, etc.) has been proposed within the Application Site.
(c) Please supplement the odour impact in a new sub-section, e.g. Section 2.6.	Noted. Odour Impact Assessment has been supplemented in S.2.6.
13. Section 2.6.1 - Please revise "significant" in the 2nd last line to "adverse".	Noted, relevant text has been updated accordingly.
14. Section 6.1.1 - Please revise "dust" in line 2 to "air quality".	Noted, relevant text has been updated accordingly.
15. Section 6.2.2	
(a) Please supplement the estimated size of works area to support the scale of the construction works.	The estimated size of works area would be approximately 3100m^2.

Comments	Response
(b) Please revise "avoid adverse fugitive dust impact" in the last line to "control the construction air quality impact".	Noted, relevant text has been updated accordingly.
16. Section 6.2.3	
(a) For the concurrent projects, please identify all potential concurrent projects within the 500m assessment area and consider if close liaison with the contractors of concurrent projects to avoid overlapping of heavy or dusty construction works will also be implemented to minimize the cumulative construction air quality impact.	Potential concurrent projects within 500m assessment area have been identified and discussed in S.6.2.3. Locations of potential concurrent projects have been shown in Figure 6.2. Close liaison with the contractors of concurrent projects will be required.
(b) Please correct the typo "Regulations" in line 15 to "Regulation"	Noted, relevant text has been updated accordingly.
(c) Please correct the typo "adaptation" in line 16 to "adoption", and revise "good practices" to "the above measures".	Noted, relevant text has been updated accordingly.
(d) Please revise "can be kept at an acceptable level" in the last line to "can be controlled".	Noted, relevant text has been updated accordingly.
17. Section 6.2.4 - Please supplement the estimated no. of PME to be used at a time to support the scale of the construction works.	Noted. It is estimated that about 5 on-site diesel/ petroleum fuelled machineries will be used for construction works.
18. Section 6.3.1	
(a) Please correct the typo "Regulations" in line 5 to "Regulation", and	Noted, relevant text has been updated accordingly.

Comments	Response
revise "good practices" in lines 5-6 to "the above measures".	
(b) Please revise "can be kept at an acceptable level" in lines 6-7 to "can be controlled".	Noted, relevant text has been updated accordingly.
19. Figure 2.1a - Please add a remark "No air-sensitive use including openable window, fresh air intake and recreational use in open space shall be located within the buffer zone".	Noted, a remark has been added accordingly.
20. Figure 2.1b (a) Please add a remark "No air-sensitive use including openable window, fresh air intake and recreational use in open space shall be located within the buffer zone".	Noted, a remark has been added accordingly.
(b) Please add a remark in the zoom-in figure to specify that for the portions of the proposed development encroaching into the buffer zone, there shall be no air-sensitive use including openable window, fresh air intake and recreational use in open space.	Noted, a remark has been added accordingly.
Noise Impact	*Appendix IV of the revised Supporting Planning Statement refers*
1. Please obtain TD's endorsement on the traffic forecast.	Noted, TD's endorsement will be provided once available.
2. Appendix 3.3 - Please review and check the stated incident angle, for example for N2-73 and N2-74 stated 90 degree in the appendix. These	Noted, relevant text has been updated accordingly.

Comments	Response
two points do not appear to be perpendicular to either Long Yip Street or Po Yip Street. Kindly verify and correct as necessary to ensure accuracy.	
3. Fig. 3.2a – 3.2d and appendix 3.2 (mitigated case) - Please ensure consistency between the figures and appendix regarding the floor levels where noise mitigation measures are proposed. For instance, the floor numbers proposed at N2-44 and N2-45 differ between the figures and appendix 3.2.	Noted, relevant text has been updated accordingly.
4. Section 4.2.2 - Please state that the ASR is only for indicative and they are used for assessment only. It should be noted that the noise from fixed noise sources is controlled under section 13 of the Noise Control Ordinance. The assessment of noise impacts due to fixed noise sources in this report would not bind the Noise Control Authority in the context of law enforcement against any of the noise from fixed noise sources being assessed.	Noted, relevant text has been supplemented accordingly.
5. Section 4.4.1 - Please obtain an updated letter from MTRC to confirm the operational information regarding the Tuen Ma Line.	Request for information has been sent to MTRC and awaiting response. Relevant information will be supplemented once available and the railway noise impact assessment will be updated if necessary.
6. Completion Year Consistency - It has been noted that Year 2045 is projected as the worst-case peak-hour traffic scenario within the 15-year following the tentative project completion date. However, Section 1.1.4 indicates that the tentative completion year would be shifted, while	It is confirmed that the completion year is 2030. S1.1.4 has been revised accordingly.

Comments	Response
Section 1.3.3 continues to reference Year 2030 — same tentative completion year cited in the most recent NIA submitted under A/YL/304. Please review and confirm the intended project completion year, as it is related to whether Year 2045 remains the chosen reference for the worst-case traffic scenario.	
7. Section 4.8 - As there are fixed glazing along the side of the selected NAP for rail noise assessment at Tower 2 from N2-49 to N2-85, please supplement the thickness of the fixed glazing / auto-closed door to justify the noise criteria of the internal location of the building (i.e. ANL – 10) can also be meet.	Noted, relevant text has been updated accordingly.
8. Fig. 7.1a and appendix 7.1 - There is a discrepancy regarding the upper floor level for which mitigation measures are applied at N2-72: the figure indicates measures up to 31/F, while the appendix lists up to 28/F.	Noted, Fig7.1 has been revised.
Water Quality	*Appendix IV of the revised Supporting Planning Statement refers*
1. Section 6.5.4 - Please clarify "**Liquid spillage, e.g. oil, diesel, solvents etc.** Demolition and construction runoff…"	Formatting error. "Liquid spillage, e.g. oil, diesel, solvents etc." has been moved to **S6.5.3** as the last bullet.
2. Section 6.5.6 - Suggest revise as "…**negative adverse** water quality impact."	Noted, relevant text has been updated accordingly.

Comments	Response
3. Section 6.5.7 - Please clarify if it should be "… well maintained a**nd** good**s** site practice.."	Noted, relevant text has been updated accordingly.
4. Section 6.5.8 – part B 4th bullet - Suggest to remove "with backfill"	Noted, relevant text has been removed accordingly.
Waste Management	*Appendix IV of the revised Supporting Planning Statement refers*
1. Section 1.4.15 - Suggest to amend as "**With reference to Plate 2.7 of Based on** Waste Statistics for 2024, the per capita disposal rates of municipal solid waste, domestic waste, commercial & industrial waste **are assumed to be respectively** 1.40kg/person/day, 0.86kg/person/day and 0.53kg/person/day **respectively (Plate 2.7 of Waste Statistics for 2024)**."	Noted, relevant text has been updated accordingly.
2. Section 1.4.16 - The residential population and working population (i.e. 3,078 and 140) are inconsistent with Table 2.1 of the SIA. Please check and revise as appropriate.	Noted, relevant text has been updated accordingly.
3. Section 6.6.1 - Hong Kong Planning Standards and Guidelines was last updated in December 2025, please update this section accordingly. Please ensure that the waste impact assessment is conducted in accordance with the latest versions of all relevant legislation, standards, and guidelines.	Noted, relevant text has been updated accordingly.
4. Section 6.6.2, 6.6.6 & 6.6.7 - The estimated amounts of general refuse generated by the workforce and chemical waste mentioned in	Noted, relevant text has been updated accordingly.

Comments	Response
Section 6.6.2 are inconsistent with that stated in Section 6.6.6 and Section 6.6.7. Please check and revise accordingly.	
5. Table 6.3 – It is noted that the estimated generation of inert and non-inert C&D materials in the current submission is significantly larger than the estimates in the approved environmental assessment under the previous planning application (No. TPB/A/YL/304). For instance, the Inert C&D materials from demolition increased from ~11,000 m3 to ~24,970 m3. Please clarify the reasons for this difference and provide the calculations of both inert and non-inert C&D materials for our reference.	Table 6.3 has been revised which the Inert C&D materials from demolition would be similar to the previous planning application.
6. Apart from the inert and non-inert C&D materials identified during the demolition and superstructure stages, please clarify whether any inert and non-inert C&D materials would be generated from excavation works such as site clearance.	There is no plantation onsite and entire site is currently occupied by an existing building. The proposed scheme does not include basement floors. Therefore, inert and non-inert C&D materials generated from excavation works such as site clearance is negligible.
Sewerage	*Appendix V of the revised Supporting Planning Statement refers*
1. It is noted that a sewerage impact assessment (SIA) was conducted and approved under the previous planning application A/YL/304. Please briefly summarize and compare the key design parameters such as sewage estimates and sewer connection arrangements between the approved SIA and this current submission.	A summary table has been included in Section 1.1.3.
2. Section 1.3.4 & Appendix 1.1 - Appendix 1.1 is missing in the SIA. Please review and supplement as appropriate.	Noted, Appendix 1.1 has been added.

Comments	Response
3. Section 2.4.3 - Please delete "Error! Reference source not found".	Noted, relevant text has been deleted accordingly.
4. Table 2.1 - The assumed residential population is inconsistent with Appendix 2.1 Table 1b. Please check and revise.	The assumed residential population has been updated accordingly.
5. Appendix 2.1 (a) Table 1a - Typo of Lai Sun "Yeun" Long Centre. Please revised.	Noted, relevant text has been deleted accordingly.
(b) Table 2 - Ks of manhole S1-S2 & S2-S3 are inconsistent with Remark (2). Please check and revise.	Noted, relevant text has been deleted accordingly.
(c) Table 3 - Catchment A16, B1 & C3 (Public Toilet): Please check the total number of WC, single urinal with cistern and basin in the remarks.	Noted, relevant text has been deleted accordingly.
The following departments have no comment on the S.16 application: • District Officer (Yuen Long), Home Affairs Department • Chief Engineer/Construction, Water Supplies Department • Project Manager (West), Civil Engineering and Development Department • Chief Architect/Advisory and Statutory Compliance, Architectural Services Department • Director of Leisure and Cultural Services • Commissioner of Police	Noted.

Comments	Response
• Director-General of Trade and Industry • Director of Social Welfare	
Comments of the Chief Engineer/Mainland North, Drainage Services Department: **(Contact Person: Mr Terence TANG, Tel.: 3965 8927)**	
Specific Comment on SIA report	*Appendix V of the revised Supporting Planning Statement refers*
1. The sewage flow estimation and proposed sewerage connection should be agreed with Sewerage Infrastructure Group (SIG) of Environmental Protection Group, the planning authority of sewerage infrastructure.	Noted.
2. Figure 2.1 – Please indicate the gradient and state the pipe material for the proposed 300mm sewerage pipe. With reference to Sewerage Manuel Corrigendum No. 1/2024, PE pipes (PE100-RC) should be used for sewers with diameter not exceeding 375mm for corrosion protection.	Gradient and the pipe material have been indicated in the Figure 2.1.
3. Figure 2.1 – Please indicate the type of proposed Foul water manhole and provide relevant details (e.g. C.L., I.L. and D.T.L.) in the figure for the proposed and existing foul water manholes. Please be reminded that the cover level of terminal manhole should be higher than that of the downstream public manhole.	The type of the terminal manhole will be provided in detailed design stage. The cover level of 4.45mPD will be higher than the downstream public manhole.

Comments	Response
4. Standard details should be provided to indicate the sectional details of the proposed foul water manholes.	Standard details and sectional details will be provided in detailed design stage.
5. Please submit the pool water discharge proposal for approval. Relevant drainage and sewerage impact assessments shall also be submitted for approval. Reference should be made to DSD TC No.1/2023, EPD's ProPECC PN 5/93 and ProPECC PN 3/97 on discharge from swimming pool.	Noted. The pool water discharge proposal will be submitted in detailed design stage.
6. Cross sections showing the existing and proposed ground levels of the captioned site with respect to the adjacent areas should be given.	Cross section will be given in detailed design stage.
7. For the hydraulic assessment of existing sewer, please also incorporate the existing flow for assessment completeness.	The surrounding flow have been included in the Table 3 of the Appendix 2.1.
8. The SIA report needs to meet the satisfaction of SIG/EPD, the planning authority of sewerage infrastructure. Please seek EPD's comment in this regard.	Noted.
<u>General Comment on SIA report</u>	
1. The applicant is required to ensure that no construction debris, silt and sediments, or cementitious materials will be discharged to or deposited inside the public drains or sewers from the site. The applicant shall monitor the internal conditions of the existing	Noted.

Comments	Response
public drains/sewers running adjacent to the site with CCTV surveys (or other agreed alternatives) prior to commencement and upon completion of his/her works to our satisfaction. The applicant shall also provide details of all discharge point(s) in the discharge licence approved by EPD and make necessary arrangement/agreement with this Department for the scope of CCTV surveys (or other agreed alternatives). Nevertheless, such CCTV surveys (or other agreed alternatives) serve no intention to relieve the applicant's liabilities on other drains/sewers that are not included in these surveys. Any pipe blockage or damage arising from the construction works shall be made good at the cost of the developer and to our satisfaction.	
2. All proposed drainage connection may be carried out by the developer at the developer's cost. The applicant is reminded to submit a duly completed Form HBP1 together with a cheque to DSD for either a technical audit by DSD or self-certification by registered professional at the developer's cost on the completed connection works. All drainage/sewerage works to be handed over to this Department shall conform to the requirements stipulated in Stormwater Drainage Manual, Sewerage Manual, DSD Standard Drawings, DSD Technical Circulars, Practice Notes and Guidelines, etc.	Noted.
3. The applicant is reminded to submit a duly completed declaration form (Form HBP1_CC) and to provide latest approved and certified as-built drainage plans as well as relevant construction	Noted.

Comments	Response
records to DSD at least 9 days before each technical audit by DSD.	
4. The applicant shall refer to DSD Advice Note No.2 - How to make Drainage Connections which is available on DSD's homepage.	Noted.
5. For connection works involving special designs, features and/or materials such as couplings, rising mains, welded joints or the like, 2-staged technical audits would be required prior to backfilling and after completion of the connection works.	Noted.
6. This Department will only take over those public drainage facilities constructed on government land and located downstream of the terminal manhole.	Noted.
7. The applicant is required to liaise with relevant utility undertakers to obtain the latest records, plans and alignments of their utilities in order to ensure the feasibility of the proposed drainage works. The applicant is also required to excavate inspection pits and conduct utility detection to verify the alignments of utilities shown in such utility records if considered necessary.	Noted.
8. Under the Water Pollution Control Ordinance (Cap 358), discharge of wastewater into stormwater drains is not permitted.	Noted.

Comments	Response
The applicant shall ensure that the proposed sewerage works shall convey all wastewater, including but not limited to those wastes generated by the domestic use of toilets, water closets, baths, showers, sinks, basins and other sanitary and kitchen fitments, through the sewage terminal manhole(s) to the public sewers. Besides, to ensure the sustainability of the public sewerage network, the applicant shall ensure that the surface runoff within the development site will be collected and discharged via a stormwater drainage system and not be drained to the public sewerage network.	
General Comments	
Despite of the above, he has no objection in principle to the proposed development from the public drainage point of view. For any change of existing ground level and associated works proposed by the applicant that could affect adjacent land and cause other impacts and/or other issues to public, please consider to require the applicant to submit technical assessment(s) in other aspect(s) and seek comment from relevant departments as necessary. Should the Town Planning Board consider that the application is acceptable from the planning point of view, conditions should be stipulated in the approval letter requiring the applicant (i) the submission of a drainage proposal and SIA report and (ii) the implementation and maintenance of the drainage proposal and SIA report for the development to the satisfaction of the Director of Drainage Services or of the Town Planning Board.	The no objection in principle is noted.

Comments	Response
Comments of the Chief Building Surveyor/New Territories West, Buildings Department: **(Contact Person: Mr Connie WONG, Tel.: 2626 1440)**	
(i) The site is not a corner site that abuts on 2 specified streets of not less than 4.5m wide, i.e. Wang Yip Street East and Po Yip Street and could be classified as Class A sites under Regulation 18A of Building (Planning) Regulations [B(P)R]. Its development intensity shall not exceed the permissible as stipulated under the First Schedule of B(P)R;	Noted, this shall be confirmed upon GBP submission stage.
(ii) The proposed social welfare facility with Gross Floor Area (GFA) of about 422.1m2 shall be included in GFA calculation under Buildings Ordinance (BO). Otherwise GFA exemption may be granted in accordance with Joint Practice Note 4 at he building pan submission stage;	Noted.
(iii) The development intensity shall not exceed the permissible as stipulated under the First Schedule of Building (Planning) Regulations [B(P)R]. The proposed non-domestic S.C. is 65% which exceeds the max. permitted non-domestic S.C. for Class A site, i.e. 60%.	Noted, this shall be confirmed upon GBP submission stage.
(iv) The site shall be provided with means of obtaining access thereto from a street and emergency vehicular access in accordance with	Noted.

Comments	Response
Regulations 5 and 41D of the B(P)R respectively;	
(v) If the applicant applies for gross floor area (GFA) concession under Practice Notes for Authorized Persons, Registered Structural Engineers and Registered Geotechnical Engineers (PNAP) APP-151, compliance with the SBD guidelines on building separation, building setback and site coverage of greenery under PNAP APP-152, where applicable, is rquired. Particular attention is drawn to the compliance with building separation requirements for buildings in close proximity to site boundary;	Noted.
(vi) For any carparking spaces to be disregarded from GFA calculation under Regulation 23(3)(a) of B(P)R, the applicant shall comply with PNAP APP-2;	Noted.
(vii) The proposed social welfare facility with GFA of about 1,779.3m2 should be GFA accountable under Buildings Ordinance unless exempted;	Noted.
(viii) Presumably the roofs would be used as the refuge floor; otherwise, an additional refuge floor would be required and the building height might be affected;	Please kindly note that the proposed scheme has included a refuge floor.
(ix) The proposed noise barriers and vertical acoustic fins are	Noted, this shall be confirmed upon GBP submission stage.

Comments	Response
accountable for GFA and site coverage calculation under the BO unless exempted. Joint Practice Notes Nos. 1 & 2 refer.	
(x) Detailed checking under the BO will be carried out at building plan submission stage.	Noted.
Comments of the Chief Town Planner/Urban Design and Landscape, Planning Department: **(Contact Person: Ms May CHAN and Mr Jason KO, Tel.: N/A)**	
Urban Design and Visual	
(i) the application site (the Site) is located in the southeastern fringe of the Tung Tau Industrial Area (TTIA) which primarily consists of industrial/industrial-office and commercial/residential buildings with building heights (BHs) ranging from about 12mPD to 96mPD. While low-rise village settlements with BHs ranging from about 7mPD to 16mPD are located to the east of the Site, clusters of high-rise commercial/residential developments are found to the south and further east in the Yuen Long Town Centre area along Castle Peak Road – Yuen Long and around the Tuen Ma Line Long Ping Station and Yuen Long Station, with BHs ranging from about 100mPD to 175mPD;	Noted.
(ii) The Site is the subject of an approved application (No. A/YL/304) with BH of 100.75mPD. As compared to the approved scheme,	Noted.

Comments	Response
the proposed maximum BH of 114.8mPD will result in an increase in BH of 14.05m (+13.9%), and 29.8m (+35.1%) as compared to the OZP compliance scheme. As noted from the Planning Statement and Section Plan, the increase in BH is mainly due to the relocation of basement carpark in approved scheme to aboveground, special unit with FTFH of 3.5m on the top level, and refuge floor in current submission. A Visual Impact Assessment (VIA) has been submitted by the applicant which concludes that significant adverse visual impacts are not anticipated. While the proposed development is comparatively taller than those buildings in the immediate locality, it is considered not entirely incompatible with the building height profile in the wider context; and	
(iii) the proposed design/mitigation measures, including BH variation, 15m building separation, greening/landscaping measures, the terraced podium design and building setback, are considered to have urban design merits.	Noted.
Landscape Planning	
(i) according to the aerial photo taken in 2025, the Site was situated in an area of Industrial Urban Landscape characterised by industrial buildings, village houses and residential buildings;	Noted.
(ii) with reference to the site photos taken by DPO on 26.5.2026, the Site was entirely formed and occupied by an industrial building.	Noted.

Comments	Response
No existing trees were observed within the Site;	
(iii) the applicant has submitted a Landscape Proposal(LP) in support of the application. According to the LP, no less than 20% site coverage of greenery is proposed and 74 new trees are proposed to be planted within Site; and	Noted.
(iv) in view of the above, no significant adverse landscape impact arising from the proposed use is anticipated.	Noted.
Comments of the District Planning Officer/Tuen Mun and Yuen Long West, Planning Department: **(Contact Person: Ms Carmen CHEUNG, Tel.: N/A)**	
Comments on Supporting Planning Statement (SPS):	
(i) Please revise the application form, para. 3.1.2 and table 3.1 on the number of storeys, which should be 30 to 32 storeys (including refuge floor).	Noted, relevant sections have been updated accordingly.
(ii) Table 3.1 – Please also state the number of estimated population.	Noted, Table 3.1 has been updated accordingly.
(iii) Figure 3.5 – The annotation view from Po Yip Street appears to be incorrect. Please check.	Noted, relevant sections have been updated accordingly.

Comments	Response
(iv) Para. 3.4 – With reference to the advisory clause under previous application no. A/YL/304 on "to improve the building layout and design of the proposed development for better air ventilation, in particular at the Keung Yip Street Rest Garden, during the detailed design stage", please supplement if the proposal has incorporated such design.	A stepped podium design has been adopted along the Keung Yip Street Rest Garden frontage.
(v) Para. 4.7 – please clarify if the proposed relaxation of building height is (i) in response to Government's policy on GFA exemption for above ground car parks; and (ii) to cater for the extra GFA arising from proposed relaxation of plot ratio restriction. Please also elaborate on the increased headroom on G/F to 1/F (ranging from 4m to 6m), while the approved scheme under planning application no. A/YL/304 has headroom of 4.1m to 4.8m.	Please refer to para. 4.3.3 for more elaborations.
(vi) Appendix II – Communal Open Space Provision – please clarify if the private open space / communal open space provided is 2881m^2 or 3029m^2.	The communal open space would be not less than 2,777sqm.
Comments on Drawings:	
(i) It is observed that the ground floor plan indicated 1.6m of building setback from Wang Yip Street East, while the main text of the SPS stated 1.5m setback is provided. Please revise the drawing.	The relevant drawing has been updated accordingly.

Comments	Response
(ii) Please submit a drawing similar to Figure 3.3 of the SPS with all design merits indicated (i.e. including 15m building block separation and stepped building height design at Tower 2).	A new drawing has been prepared and supplemented in Appendix I of the revised Supporting Planning Statement.
(iii) Please submit additional section drawing on tower 2 to show the stepped building height as well as in number of storeys.	A new section drawing has been prepared and supplemented in Appendix I of the revised Supporting Planning Statement.
(iv) Photomontage - for Figure 6.1 (VP1), the proposed development should be taller and wider, extending to the top edge of the photomontage. For Figure 6.2 (VP2), the proposed development should be taller, extending beyond the top edge of the photomontage. Please consider reviewing the photomontages.	Please refer to the revised Visual Impact Assessment in Appendix IV for the montages of the revised scheme.
Comments of the Transport Department: **(Contact Person: Ms Sarita CHAN, Tel.: 2399 2191)**	
1. Table 2.1: Please specify the numbers of residential block and flat of different size types. Please advise what type of welfare facilities will be provided.	*Appendix III of the revised Supporting Planning Statement refers* Table 2.1 has been updated accordingly.
2. Table 2.3: Please confirm with relevant government department on the proposed parking provision for welfare facilities.	Please refer to Annex I.

Comments	Response
3. Figure 2.1 and 2.2: Please i) indicate/ label clearly the type of parking, L/UL spaces (better to include numbering for ease of reference), ii) provide swept path for critical parking locations and run-in/out, iii) advise how the bicycle parking spaces and MC parking spaces are accessed, iii) show clearly the pedestrian entrances on plan.	i) Figure 2.1 (Rev.A) and 2.2 (Rev.A) have been updated accordingly. ii) Figures SP-01 to 03 have been supplemented in the revised TIA report for your consideration. iii) The revised Figure 2.1 (Rev.A) indicates the entrance for bicycle parking spaces and the MC parking spaces have been relocated. iv) Figure 2.1 (Rev.A) has been updated to indicate the pedestrian entrances.
4. Para. 3.2.1: Please include junctions Fo Yip Street/ Wang Yip Street West, Castle Peak Road Yuen Long Section/ Long Lok Road/ Long Yip Street, Castle Peak Road Yuen Long Section/ Long Yut Road and Pok Oi Interchange in your assessment. Moreover, please include a section of road between Long Yip Street and Kwong Yip Street in the assessment.	Addition junction assessment has been provided in the revised TIA report. The assessment for section of road between Long Yip Street and Kwong Yip Street have also been included in the revised TIA report.
5. Para. 4.3.2: Please elaborate how the traffic flow generated Adjacent Developments are incorporated in the 2033 Reference Traffic Flows.	Please note that our traffic consultant has made reference to other TIA reports to generate the traffic flow of adjacent developments.
6. Para. 4.4.2: Our comments reserved until the type of welfare facilities are advised.	Noted.

Comments	Response
7. Table 4.6: Please provide details/ information showing how the flat number of different average flat size are derived.	Table 2.1 has been updated to show the details and information of how the flat number of different average flat size were derived.
8. Figure 4.1 to 4.3: Please include a section of road between Long Yip Street and Kwong Yip Street in the assessment. As there will be traffic flow from Long Yip Street through Kwong Yip to access the proposed development, please include the relevant road links and assess if there are any traffic flow through this path.	Figures 4.1(Rev.A) to 4.3 (Rev.A) have been updated and section of road between Long Yip Street and Kwong Yip Street have been considered in the assessment.
9. Section 4.6: Please include assessment of road link capacity.	Road link capacity has been demonstrated in Tables 3.3, 4.9 and 4.10 of the revised TIA report.
10. Para. 5.1.1: Figure number is wrongly numbered.	The figure number has been updated accordingly.
11. Section 5.1: Please indicate the desired line of movement of pedestrian to all entrances and extend your assessment to cover all involved footpath. Please include your assessment to cover paths from the direction of Po Yip Street/ Long Yip Street/ On Lok Road.	Figure 5.1 (Rev.A) has been updated to indicate the desired line of movement of pedestrian to all entrances and the addition assessment sections for your review and comments.
12. General: There are pillar boxes near the crossing at Po Yip Street. Please assess if they will affect the walkability of the development.	The pillar boxes will be relocated in the future (subject to detail design stage). The walkability of the development should be able to be maintained in the future.

Compiled by : KTA Planning Limited

Date : **10 July 2026**

For Official Use Only 請勿填寫此欄	Application No. 申請編號	
	Date Received 收到日期	

1. The completed form and supporting documents (if any) should be sent to the Secretary, Town Planning Board (the Board), 15/F, North Point Government Offices, 333 Java Road, North Point, Hong Kong.
申請人須把填妥的申請表格及其他支持申請的文件 (倘有)，送交香港北角渣華道 333 號北角政府合署 15 樓城市規劃委員會(下稱「委員會」)秘書收。

2. Please read the "Guidance Notes" carefully before you fill in this form. The document can be downloaded from the Board's website at http://www.info.gov.hk/tpb/. It can also be obtained from the Secretariat of the Board at 15/F, North Point Government Offices, 333 Java Road, North Point, Hong Kong (Tel: 2231 4810 or 2231 4835), and the Planning Enquiry Counters of the Planning Department (Hotline: 2231 5000) (17/F, North Point Government Offices, 333 Java Road, North Point, Hong Kong and 14/F, Sha Tin Government Offices, 1 Sheung Wo Che Road, Sha Tin, New Territories).
請先細閱《申請須知》的資料單張，然後填寫此表格。該份文件可從委員會的網頁下載 (網址：http://www.info.gov.hk/tpb/)，亦可向委員會秘書處 (香港北角渣華道 333 號北角政府合署 15 樓 – 電話：2231 4810 或 2231 4835)及規劃署的規劃資料查詢處(熱線：2231 5000) (香港北角渣華道 333 號北角政府合署 17 樓及新界沙田上禾輋路 1 號沙田政府合署 14 樓)索取。

3. This form can be downloaded from the Board's website, and obtained from the Secretariat of the Board and the Planning Enquiry Counters of the Planning Department. The form should be typed or completed in block letters. The processing of the application may be refused if the required information or the required copies are incomplete.
此表格可從委員會的網頁下載，亦可向委員會秘書處及規劃署的規劃資料查詢處索取。申請人須以打印方式或以正楷填寫表格。如果申請人所提交的資料或文件副本不齊全，委員會可拒絕處理有關申請。

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1. Name of Applicant 申請人姓名/名稱

(☐ Mr. 先生 / ☐ Mrs. 夫人 / ☐ Miss 小姐 / ☐ Ms. 女士 / ☐ Company 公司 / ☑ Organisation 機構)

Star Success International Limited

2. Name of Authorised Agent (if applicable) 獲授權代理人姓名/名稱（如適用）

(☐ Mr. 先生 / ☐ Mrs. 夫人 / ☐ Miss 小姐 / ☐ Ms. 女士 / ☑ Company 公司 / ☐ Organisation 機構)

KTA Planning Limited

3. Application Site 申請地點

(a) Full address / location / demarcation district and lot number (if applicable) 詳細地址／地點／丈量約份及地段號碼（如適用）	Nos. 21-35 Wang Yip Street East, Yuen Long (Yuen Long Town Lot 362)
(b) Site area and/or gross floor area involved 涉及的地盤面積及／或總樓面面積	☑ Site area 地盤面積 7,271 sq.m 平方米 ☑ About 約 ☑ Gross floor area 總樓面面積 45,226* sq.m 平方米 ☑ About 約
(c) Area of Government land included (if any) 所包括的政府土地面積（倘有）	Nil sq.m 平方米 ☐ About 約

* GFA that is constructed or intended for use solely as GIC facilities (about 442.1sqm) as required by the Government, has been disregarded

(iv) For Type (iv) application 供第(iv)類申請

(a) Please specify the proposed minor relaxation of stated development restriction(s) and **also fill in the proposed use/development and development particulars in part (v) below** –
請列明擬議略為放寬的發展限制**並填妥於第(v)部分的擬議用途/發展及發展細節** –

☑ Plot ratio restriction 地積比率限制	From 由 Domestic PR 5 to 至 Domestic PR 6.5
☐ Gross floor area restriction 總樓面面積限制	From 由 ……sq. m 平方米 to 至 ……sq. m 平方米
☐ Site coverage restriction 上蓋面積限制	From 由 ……% to 至 …… %
☑ Building height restriction 建築物高度限制	From 由 ……m 米 to 至 …… m 米 From 由 ……85…… mPD 米 (主水平基準上) to 至 ……112.7……mPD 米 (主水平基準上) From 由 …… storeys 層 to 至 …… storeys 層
☐ Non-building area restriction 非建築用地限制	From 由 ……m to 至 …… m
☐ Others (please specify) 其他（請註明）	…… ……

(v) For Type (v) application 供第(v)類申請

(a) Proposed use(s)/development 擬議用途/發展	'Flat', 'Shop and Services'/'Eating Place', 'Social Welfare Facility' (with minor relaxation of Plot Ratio and Building Height Restrictions) (Please illustrate the details of the proposal on a layout plan 請用平面圖說明建議詳情)

(b) Development Schedule 發展細節表

Proposed gross floor area (GFA) 擬議總樓面面積	……45,226*…… sq.m 平方米	☑About 約
Proposed plot ratio 擬議地積比率	Domestic: 6; Non-domestic: 0.22	☑About 約
Proposed site coverage 擬議上蓋面積	Domestic: Not more than 33% Non-domestic: Not more than 92%	☐About 約
Proposed no. of blocks 擬議座數	……2……	
Proposed no. of storeys of each block 每座建築物的擬議層數	……T1 & T2: 32…… storeys 層 ☐ include 包括……storeys of basements 層地庫 ☐ exclude 不包括……storeys of basements 層地庫	
Proposed building height of each block 每座建築物的擬議高度	T1: 112.7mPD / 108.25m (about) T2: 105.7-112.7mPD / 101.25-108.23m (about)	

* GFA that is constructed or intended for use solely as GIC facilities (about 442.1sqm) as required by the Government, has been disregarded

Gist of Application 申請摘要

(Please provide details in both English and Chinese as far as possible. This part will be circulated to relevant consultees, uploaded to the Town Planning Board's Website for browsing and free downloading by the public and available at the Planning Enquiry Counters of the Planning Department for general information.)
(請盡量以英文及中文填寫。此部分將會發送予相關諮詢人士、上載至城市規劃委員會網頁供公眾免費瀏覽及下載及於規劃署規劃資料查詢處供一般參閱。)

Application No. 申請編號	(For Official Use Only) (請勿填寫此欄)
Location/address 位置／地址	Nos. 21-35 Wang Yip Street East, Yuen Long (Yuen Long Town Lot 362)
Site area 地盤面積	7,271 sq. m 平方米 ☑ About 約 (includes Government land of 包括政府土地 sq. m 平方米 ☐ About 約)
Plan 圖則	Draft Yuen Long Outline Zoning Plan No. S/YL/29
Zoning 地帶	"Residential (Group E) 2"
Applied use/ development 申請用途/發展	'Flat', 'Shop and Services'/'Eating Place', 'Social Welfare Facility' (with minor relaxation of Plot Ratio and Building Height Restrictions)

		sq.m 平方米	Plot Ratio 地積比率
(i) Gross floor area and/or plot ratio 總樓面面積及／或地積比率	Domestic 住用	43,626 ☑ About 約 ☐ Not more than 不多於	6 ☑About 約 ☐Not more than 不多於
	Non-domestic 非住用	1,600* ☑ About 約 ☐ Not more than 不多於	0.22* ☑About 約 ☐Not more than 不多於
(ii) No. of block 幢數	Domestic 住用		
	Non-domestic 非住用		
	Composite 綜合用途	2	

* GFA that is constructed or intended for use solely as GIC facilities (about 422.1sqm) as required by the Government, has been disregarded

(iii)	Building height/No. of storeys 建築物高度／層數	Domestic 住用	m 米 ☐ (Not more than 不多於)
			mPD 米(主水平基準上) ☐ (Not more than 不多於)
			Storeys(s) 層 ☐ (Not more than 不多於) *(☐Include 包括/☐ Exclude 不包括* ☐ *Carport 停車間* ☐ *Basement 地庫* ☐ *Refuge Floor 防火層* ☐ *Podium 平台)*
		Non-domestic 非住用	m 米 ☐ (Not more than 不多於)
			mPD 米(主水平基準上) ☐ (Not more than 不多於)
			Storeys(s) 層 ☐ (Not more than 不多於) *(☐Include 包括/☐ Exclude 不包括* ☐ *Carport 停車間* ☐ *Basement 地庫* ☐ *Refuge Floor 防火層* ☐ *Podium 平台)*
		Composite 綜合用途	T1: 108.25m (about) T2: 101.25-108.25m (about) m 米 ☐ (Not more than 不多於)
			T1: 112.7mPD (about) T2: 105.7-112.7mPD (about) mPD 米(主水平基準上) ☐ (Not more than 不多於)
			31 (max.) Storeys(s) 層 ☐ (Not more than 不多於) *(☑Include 包括/☐ Exclude 不包括* ☐ *Carport 停車間* ☐ *Basement 地庫* ☑ *Refuge Floor 防火層* ☐ *Podium 平台)*
(iv)	Site coverage 上蓋面積	Domestic: Not more than 33% Non-domestic: Not more than 92%	☐ About 約
(v)	No. of units 單位數目	1,068	
(vi)	Open space 休憩用地	Private 私人	2,777 sq.m 平方米 ☑ Not less than 不少於
		Public 公眾	sq.m 平方米 ☐ Not less than 不少於

(vii) No. of parking spaces and loading / unloading spaces 停車位及上落客貨車位數目	Total no. of vehicle parking spaces 停車位總數	307
	Private Car Parking Spaces 私家車車位	150
	Motorcycle Parking Spaces 電單車車位	13
	Light Goods Vehicle Parking Spaces 輕型貨車泊車位	
	Medium Goods Vehicle Parking Spaces 中型貨車泊車位	
	Heavy Goods Vehicle Parking Spaces 重型貨車泊車位	
	Others (Please Specify) 其他 (請列明) Bicycle	143
	~~For GIC Facilities (as requested by SWD)~~: ~~Private Light Bus Parking Spaces~~	1
	Total no. of vehicle loading/unloading bays/lay-bys 上落客貨車位／停車處總數	6
	Taxi Spaces 的士車位	
	Coach Spaces 旅遊巴車位	
	Light Goods Vehicle Spaces 輕型貨車車位	1
	Medium Goods Vehicle Spaces 中型貨車位	
	Heavy Goods Vehicle Spaces 重型貨車車位	3
	Others (Please Specify) 其他 (請列明) For GIC Facilities (as requested by SWD):	
	~~Heavy Goods Vehicle Space~~	1
	~~Ambulance/Private Light Bus Lay-by~~	1

Submitted Plans, Drawings and Documents 提交的圖則、繪圖及文件

	Chinese 中文	**English** 英文
Plans and Drawings 圖則及繪圖		
Master layout plan(s)/Layout plan(s) 總綱發展藍圖／布局設計圖	☐	✔
Block plan(s) 樓宇位置圖	☐	☐
Floor plan(s) 樓宇平面圖	☐	✔
Sectional plan(s) 截視圖	☐	✔
Elevation(s) 立視圖	☐	☐
Photomontage(s) showing the proposed development 顯示擬議發展的合成照片	☐	✔
Master landscape plan(s)/Landscape plan(s) 園境設計總圖／園境設計圖	☐	✔
Others (please specify) 其他（請註明）	☐	☐
Reports 報告書		
Planning Statement/Justifications 規劃綱領/理據	☐	✔
Environmental assessment (noise, air and/or water pollutions) 環境評估（噪音、空氣及／或水的污染）	☐	✔
Traffic impact assessment (on vehicles) 就車輛的交通影響評估	☐	✔
Traffic impact assessment (on pedestrians) 就行人的交通影響評估	☐	✔
Visual impact assessment 視覺影響評估	☐	✔
Landscape impact assessment 景觀影響評估	☐	☐
Tree Survey 樹木調查	☐	☐
Geotechnical impact assessment 土力影響評估	☐	☐
Drainage impact assessment 排水影響評估	☐	☐
Sewerage impact assessment 排污影響評估	☐	✔
Risk Assessment 風險評估	☐	☐
Others (please specify) 其他（請註明）	☐	☐
Landscape Proposal		

Note: May insert more than one「✔」. 註：可在多於一個方格內加上「✔」號

☑ Domestic part 住用部分

GFA 總樓面面積 ……43,626…… sq. m 平方米 ☑About 約

number of Units 單位數目 ……1,068……

average unit size 單位平均面積 ……40.8……sq. m 平方米 ☑About 約

estimated number of residents 估計住客數目 ……2,777……

☑ Non-domestic part 非住用部分

GFA 總樓面面積

☑ eating place 食肆 / shop and services ……1,600*…… sq. m 平方米 ☑About 約

☐ hotel 酒店 …… sq. m 平方米 ☐About 約

(please specify the number of rooms 請註明房間數目) ……

☐ office 辦公室 …… sq. m 平方米 ☐About 約

☐ shop and services 商店及服務行業 …… sq. m 平方米 ☐About 約

* GFA that is constructed or intended for use solely as GIC facilities (about 422.1sqm) as required by the Government, has been disregarded

☑ Government, institution or community facilities 政府、機構或社區設施

(please specify the use(s) and concerned land area(s)/GFA(s) 請註明用途及有關的地面面積／總樓面面積)

- Main-base of Short-term Food Assistance Service Team;
- Home Care Services (HCS) for Frail Elderly Persons (2-team size non-kitchen based);

Total GFA: about 422.1sqm (as required by SWD; disregarded from non-domestic GFA calculation)

☐ other(s) 其他

(please specify the use(s) and concerned land area(s)/GFA(s) 請註明用途及有關的地面面積／總樓面面積)

……

……

……

☑ Open space 休憩用地

(please specify land area(s) 請註明地面面積)

☑ private open space 私人休憩用地 ..2,777…… sq. m 平方米 ☑ Not less than 不少於

☐ public open space 公眾休憩用地 …… sq. m 平方米 ☐ Not less than 不少於

(c) Use(s) of different floors (if applicable) 各樓層的用途 (如適用)

[Block number] [座數]	[Floor(s)] [層數]	[Proposed use(s)] [擬議用途]
……	G/F	Shop/F&B, Residential Lobby, GIC Lobby, Clubhouse, Internal Transport Facilities, E&M
……	1/F	GIC Uses, Internal Transport Facilities, E&M
……	2/F	Clubhouse, GIC Uses
T1, T2	Residential Floor 1 - 27	Flat (Refuge Floor located above Residential Floor 14)
……	……	……

(d) Proposed use(s) of uncovered area (if any) 露天地方（倘有）的擬議用途

Landscaped area, swimming pool, EVA

7. Anticipated Completion Time of the Development Proposal
擬議發展計劃的預計完成時間

Anticipated completion time (in month and year) of the development proposal (by phase (if any)) (e.g. June 2023)
擬議發展計劃預期完成的年份及月份 (分期 (倘有)) (例：2023 年 6 月)
(Separate anticipated completion times (in month and year) should be provided for the proposed public open space and Government, institution or community facilities (if any))
(申請人須就擬議的公眾休憩用地及政府、機構或社區設施 (倘有) 提供個別擬議完成的年份及月份)

December 2030 (tentative)

8. Vehicular Access Arrangement of the Development Proposal
擬議發展計劃的行車通道安排

Any vehicular access to the site/subject building? 是否有車路通往地盤／有關建築物？	Yes 是	☑ There is an existing access. (please indicate the street name, where appropriate) 有一條現有車路。(請註明車路名稱(如適用)) Wang Yip Street East ☐ There is a proposed access. (please illustrate on plan and specify the width) 有一條擬議車路。（請在圖則顯示，並註明車路的闊度）
	No 否	☐
Any provision of parking space for the proposed use(s)? 是否有為擬議用途提供停車位？	Yes 是	☑ (Please specify type(s) and number(s) and illustrate on plan) 請註明種類及數目並於圖則上顯示) Private Car Parking Spaces 私家車車位 150 Motorcycle Parking Spaces 電單車車位 13 Light Goods Vehicle Parking Spaces 輕型貨車泊車位 ____ Medium Goods Vehicle Parking Spaces 中型貨車泊車位 ____ Heavy Goods Vehicle Parking Spaces 重型貨車泊車位 ____ Others (Please Specify) 其他 (請列明) ____ Bicycle 143 For GIC Facilities (as requested by SWD): ____ Private Light Bus Parking Spaces 1
	No 否	☐
Any provision of loading/unloading space for the proposed use(s)? 是否有為擬議用途提供上落客貨車位？	Yes 是	☑ (Please specify type(s) and number(s) and illustrate on plan) 請註明種類及數目並於圖則上顯示) Taxi Spaces 的士車位 ____ Coach Spaces 旅遊巴車位 ____ Light Goods Vehicle Spaces 輕型貨車車位 1 Medium Goods Vehicle Spaces 中型貨車車位 ____ Heavy Goods Vehicle Spaces 重型貨車車位 3 Others (Please Specify) 其他 (請列明) ____ For GIC Facilities (as requested by SWD): ____ Heavy Goods Vehicle Space 1 Ambulance/Private Light Bus Lay-by 1
	No 否	☐

S16 PLANNING APPLICATION
DRAFT YUEN LONG OZP NO. S/YL/28

Proposed "Flat", "Shop and Services"/ "Eating Place" and "Social Welfare Facility" with Minor Relaxation of Plot Ratio and Building Height Restrictions at 21-35 Wang Yip Street East, Yuen Long

REVISED SUPPORTING PLANNING STATEMENT

July 2026

Applicant:
Star Success International Limited

Consultancy Team:
KTA Planning Limited
DLN Architects Ltd
Ramboll Hong Kong Limited
CTA Consultants Limited
Landes Limited

PLANNING LIMITED
規劃顧問有限公司

S3040b_PS_02

EXECUTIVE SUMMARY

This Supporting Planning Statement is prepared and submitted on behalf of the Applicant, Star Success International Limited, to seek approval from the Town Planning Board ("TPB") under section 16 of the Town Planning Ordinance for the proposed "Flat", "Shop and Services"/ "Eating Place" and "Social Welfare Facility" with minor relaxation of Plot Ratio and Building Height Restrictions at 21 – 35 Wang Yip Street East in Yuen Long ("Application Site"/"the Site"). The Application Site is zoned "Residential (Group E) 2" ("R(E)2") in the Draft Yuen Long Outline Zoning Plan No. S/YL/28 ("Draft OZP"). The Application Site takes up 7,271sqm of land and is located just 350m away from MTR Long Ping Station.

The same Applicant had previously submitted a S12A Amendment of Plan Application (TPB Ref.: Y/YL/16) and a S16 Planning Application (TPB Ref.: A/YL/304) to TPB and TPB agreed with and approved these applications on 27 August 2021 and 22 December 2023 respectively. The Applicant has subsequently started the lease modification application. In 2025, the Government has promulgated different measures to expedite developments, e.g. PNAP APP-2 which enhances gross floor area (GFA) exemption arrangements for carparks in private developments to reduce construction costs, shorten timelines, and boost residential flat provision without compromising overall development intensity.. The Applicant therefore puts forward the current revised development scheme, without jeopardising the provision of Government, Institution and Community ("GIC") facilities, in response to the latest circumstances. The development proposal also echoes with the Government's policy on developing the Northern Metropolis and ensuring steady supply of residential flats.

Based on a plot ratio of 6.22 (which is identical to the approved S16 Planning Application) and a site area of 7,271m^2, the total gross floor area (GFA) of the Proposed Development Scheme would be about 45,226m^2. It will produce a total of 1,068 units at an average flat size of about 40.8m^2. The Proposed Residential Development comprises 2 residential blocks, with 25 to 27 storeys, plus 1 refuge floor and over 1 level of clubhouse and 2 levels of carpark, retail and GIC facilities (with a total of not more than 31 storeys). The building height ranges from 105.7mPD to 112.7mPD. About 1,600m^2 of shop and services/eating places will be located on G/F fronting onto Keung Yip Street Rest Garden as well as Po Yip Street. Internal transport facilities will be provided on G/F and 1/F in response to PNAP APP-2. The Proposed Development Scheme will also include GIC facilities on G-2/F of Tower 2 with reference to the approved Planning Application No. A/YL/304 and as previously recommended by the Social Welfare Department.

The Proposed Development Scheme will also continue to provide a 15m-wide building separation between the proposed towers and a stepped building height profile. The Proposed Development Scheme will offer setback on 3 sides of the Site. Not least, there will be multi-level greenings at various locations and a recessed corner of about 120m^2 at the eastern corner on Wang Yip Street East. These design elements would help to create space for landscaping and bring enhancement to the streetscape.

Last but not least, various technical assessments conducted for the Proposed Residential Development have suggested no adverse impacts would be brought to the surrounding environment and traffic. Therefore, considering the above planning gains and technical supports, the Applicant seeks a favorable consideration from the Board in approving this S16 Planning Application.

申請摘要
（以英文版本為準）

申請人 Star Success International Limited，擬根據城市規劃條例第 16 條向城市規劃委員會（下稱「城規會」）申請擬議「分層住宅」、「商店及服務行業」/「食肆」及「社會福利設施」用途並略為放寬地積比及高度限制。申請地點位於元朗宏業東街 21-35 號（下稱「申請地點」），於元朗分區計劃大綱草圖編號 S/YL/28（下稱「大綱草圖」）內被劃為「住宅(戊類)2」用途。申請地點地盤面積為約 7,271 平方米，離開港鐵朗屏站約 350 米。

同一申請人先前已向城規會提交第 12A 條申請修訂圖則申請（申請編號：Y/YL/16）及第 16 條規劃申請（申請編號：A/YL/304），城規會分別於 2021 年 8 月 27 日及 2023 年 12 月 22 日批准了該等申請。申請人隨後啟動了契約修訂申請。 2025 年，政府頒布多項措施加速發展，例如修訂認可人士、註冊結構工程師及註冊岩土工程師作業備考 PNAP APP-2 以放寬私人發展項目中停車場總樓面面積的豁免安排，從而精簡發展程序、降低建築成本並在不降低整體發展密度的情況下增加房屋供應。因此，申請人根據最新的規劃狀況，在不會影響已承諾提供的政府、機構及社區設施的前提下，提出目前修訂後的發展方案。此發展方案同時亦符合政府發展北部都會區及確保住宅單位穩定供應的政策。

根據地積比率 6.22（跟已獲批准的第 16 條規劃申請一樣）及地盤面積 7,271 平方米計算，擬建發展方案的總建築面積約為 45,226 平方米，共提供 1,068 個平均面積約為 40.8 平方米的住宅單位。擬建住宅項目包括兩棟住宅大樓，樓高 25 至 27 層（加 1 層庇護層），另設 1 層會所及 2 層停車場、零售及公共設施（共不多於 31 層）。樓高介於主水平基準以上 105.7 米至主水平基準以上 112.7 米之間。在面向強業街休憩花園及寶業街的位置將提供約 1,600 平方米的商店及餐飲設施。申請人根據 PNAP APP-2 的建議於地下及一樓將提供內部運輸設施。擬議發展方案會繼續按照社會福利署對樓面面積、附屬設施及高度要求上的建議提供政府、機構和社區設施。

擬議發展方案將繼續保持擬建樓宇建築間距（15 米），並採用階梯式建築物高度。擬議發展方案將在申請地盤的三面提供後退。此外，擬議發展方案將設置多層綠化及於宏業東街提供約 120 平方米的後退。這些設計元素將有助於創造景觀空間，並提昇街景美感。

最後，不同為擬議發展而進行的技術評估有效地說明擬議發展不會為週邊地區帶來不良的環境及交通影響。考慮到以上的規劃及技術理據，申請人懇請城規會支持是次的規劃申請。

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S16 PLANNING APPLICATION
DRAFT YUEN LONG OZP NO. S/YL/28

Proposed "Flat", "Shop and Services"/ "Eating Place" and "Social Welfare Facility" with Minor Relaxation of Plot Ratio and Building Height Restrictions at 21-35 Wang Yip Street East, Yuen Long

Supporting Planning Statement

1 INTRODUCTION

1.1 Purpose

1.1.1 This Supporting Planning Statement is prepared and submitted on behalf of Star Success International Limited ("the Applicant") to the Town Planning Board ("TPB") in support of the S16 Planning Application for a proposed residential development at 21 – 35 Wang Yip Street East in Yuen Long ("Application Site"/ "the Site"). The same Applicant had previously submitted a S12A Amendment of Plan Application (TPB Ref.: Y/YL/16) and a S16 Planning Application (TPB Ref.: A/YL/304) to TPB and TPB agreed with and approved these applications on 27 August 2021 and 22 December 2023 respectively. The Applicant has subsequently started the lease modification application.

1.1.2 In 2025, the Government has promulgated different measures to expedite developments, including updating PNAP APP-2 which enhances gross floor area ("GFA") exemption arrangements for carparks in private developments to reduce construction costs, shorten timelines, and boost residential flat provision without compromising overall development intensity.. The Applicant therefore puts forward the current revised development scheme, with the same plot ratio as per the approved S16 Planning Application and without jeopardising the provision of Government, Institution and Community ("GIC") facilities, in response to the latest circumstances. Despite majority of the development parameters are similar to the approved S16 Planning Application, the increase in building height that exceeds the Building Height Restriction on extant Outline Zoning Plan triggers a fresh S16 Planning Application.

1.1.3 This Supporting Planning Statement is to provide relevant Government departments with the necessary information to facilitate consideration of the planning application.

1.2 Report Structure

1.2.1 Following this Introductory Section, the site and planning context is set out in Section 2 while the Proposed Development Scheme is described in Section 3. The planning merits and justifications of the Proposed Residential Development are included in Section 4. Section 5 concludes and summarizes this planning statement.

2 SITE AND PLANNING CONTEXT

2.1 Site Location and Existing Condition

2.1.1 The application site is located at 21-35 Wang Yip Street East, Yuen Long (**Figure 2.1** refers) at the periphery of Tung Tau Industrial Area. It is bounded by Wang Yip Street East to its northwest, Keung Yip Street to its northeast, Po Yip Street to its southeast and Long Yip Street to its south. The total site area is approximately 7,271m^2.

Figure 2.1 Site Location Plan

2.2 Existing Use

2.2.1 The site is currently occupied by a 12-storey industrial building (including ground floor) namely Lai Sun Yuen Long Centre, with some warehouses/storages, repair workshops and etc..

2.3 Accessibility

2.3.1 The Application Site is accessible by vehicles via Wang Yip Street East and by pedestrian on both Wang Yip Street East and Po Yip Street. It situates between MTR Long Ping and Yuen Long Stations, with the former is located approx. 350m away from the Site.

2.4 Surrounding Context

2.4.1 The Site is situated in an area known as Tung Tau Industrial Area, one of the former active industrial areas of Yuen Long. The Tung Tau Industrial Area is bounded by Po Yip Street to its southeast, Long Yip Street to its south and the Yuen Long Main

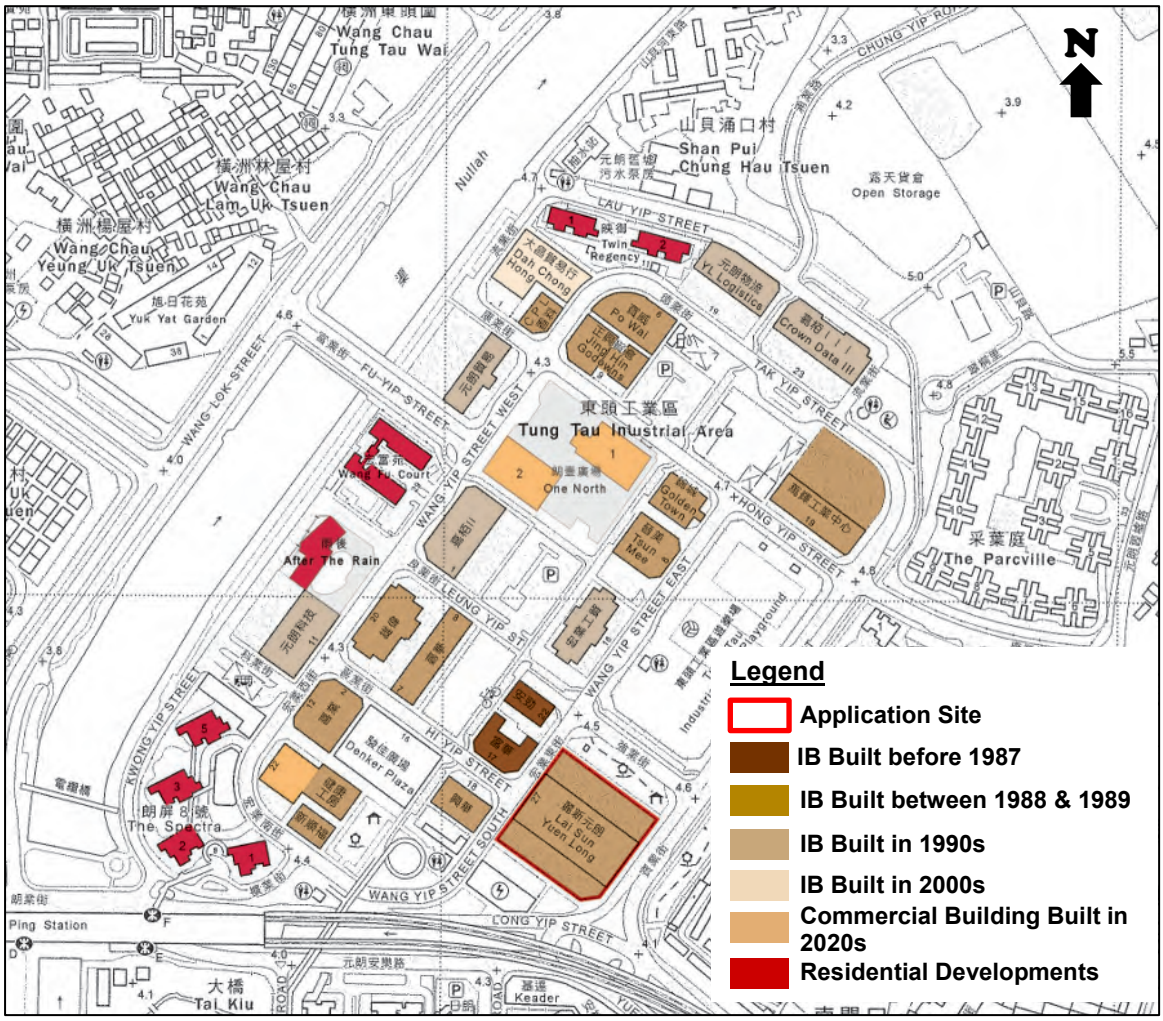


Figure 2.2 Surrounding Context

Nullah to its northwest. This forms part of the Yuen Long New Town development in the 80s to provide employment opportunities. Tung Tau Area is currently mainly occupied by low and medium rise industrial and warehouse buildings including industries/businesses of logistics, storage, trading, food production and car repair, etc (*Figure 2.2* refers). The area is low to medium rise with a lower density when compared to other major industrial areas in the territory.

2.4.2 A number of open spaces can be found in the area, such as, the Tung Tau Industrial Area Playground between Po Yip Street and Wang Yip Street East, and the children playground in Tak Yip Street, which together give the area a spacious and pleasant environment.

2.4.3 The western edge of Tung Tau Industrial Area is zoned "Residential (Group E) 1 and there are a few completed medium rise residential developments along the nullah in response to the recommendation of the 2009 Area Assessment. These include Twin Regency on Tak Yip Street, The Spectra adjacent to exit F of MTR Long Ping Station, Wang Fu Court (subsidized sales flat) and After the Rain.

2.4.4 To the east of Tung Tau Industrial Area is a cluster of villages and residential developments, namely Kwan Lok San Tsuen, Sai Pin Wai, Nam Pin Wai, One Regent Place and The Parcville.

2.4.5 There is currently very limited retail and dining facilities in the area. The Rainbow, to the opposite of The Spectra, offers a few dining outlets. Apart from those, only several scattered vending machines are observed, for example, at the Tung Tau Industrial Area Playground.

2.4.6 The residential cluster at the south end of Long Ping Station, including a public rental estate and a private residential development namely Long Ching Estate and SOL City respectively, which are both highly accessible from the Site, provide some retail and dining facilities for the Site and TTIA.

2.4.7 Yuen Long Town Centre and Castle Peak Road – Yuen Long (also known as Yuen Long Main Road 元朗大馬路) that accommodate the district's most vibrant retail activities and vast amount of residential developments are just about 500 meters to the south of Tung Tau Area. More residential developments, retail shops, GIC facilities, schools, social welfare facilities and job opportunities can all be found in this area.

2.5 Statutory Planning Context

2.5.1 The Application Site falls within an area zoned "Residential (Group E) 2" ("R(E)2") under the Draft Yuen Long Outline Zoning Plan No. S/YL/28 ("the Draft OZP) (*Figure 2.3* refers). According to the Statutory Notes of the Draft OZP, the planning intention of "R(E)" zone is as follows:

"*This zone is primarily intended for phasing out of existing industrial uses through redevelopment (or conversion) for residential use on application to the Town Planning Board. Whilst existing industrial uses will be tolerated, new industrial developments are not permitted in order to avoid perpetuation of industrial/residential interface problem.*"

2.5.2 No new development/redevelopment at the Site should result in a total development in excess of a maximum domestic plot ratio of 5 and non-domestic plot ratio of 0.22, in which floor space that is constructed or intended for use solely as GIC facilities

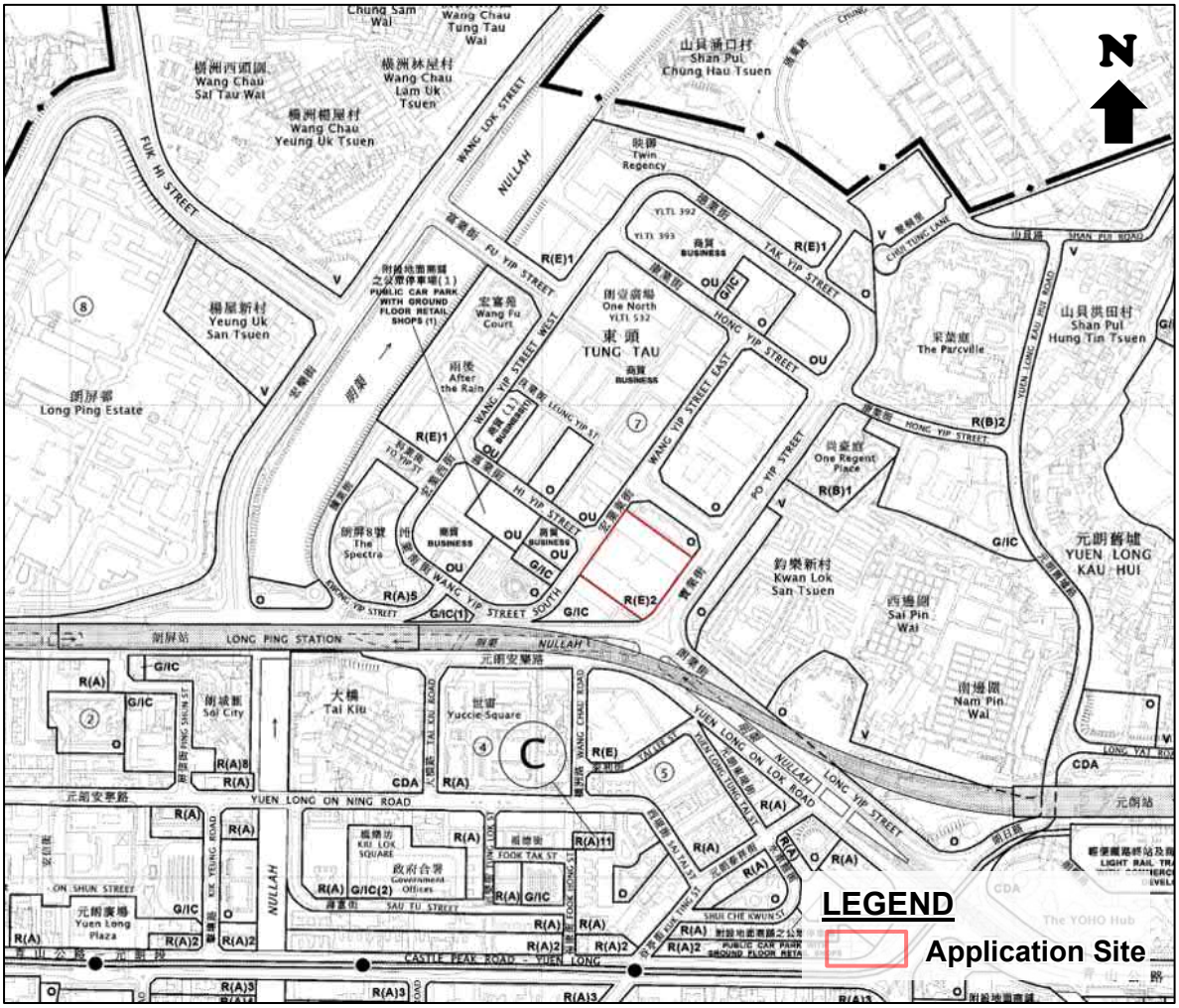


Figure 2.3 Zoning Context Plan

as required by the Government may be disregarded. Furthermore, the Site is also subject to a Building Height Restriction of 85mPD.

2.6 Planning History of the Site

2.6.1 The Applicant lodged a S12A Amendment of Plan Application in 2020 (application no. Y/YL/16) to rezone the Site from "Other Specified Uses" annotated "Business" ("OU(B)") for residential use. TPB agreed with the application and subsequently gazetted the Draft Yuen Long OZP No. S/YL/26 on 6 January 2023 to rezone the Site to "R(E)2" zone.

2.6.2 The same Applicant then submitted a S16 Planning Application for a proposed residential development with relaxation of plot ratio and building height restrictions under application no. A/YL/304, which TPB approved the application with conditions. The major development parameters of the Approved Development Scheme are as follows:

Site Area	About 7,271m²
Total Gross Floor Area	About 45,226m^2
- *Domestic* - *Non-domestic*	*About 43,626m^2* *About 1,600m^2*
Total PR	6.22
- *Domestic* - *Non-domestic*	*6* *0.22*
No. of Blocks	3 - 2 for residential with lobbies, shop and services/ eating places, residents' club house and social welfare facilities - 1 for shop and services and plant rooms
Max. BH	<u>Non-domestic block:</u> 3 storeys/19.45mPD <u>Residential blocks:</u> 27 storeys above 2-storey podium / 100.75mPD (excluding 2 basement levels)
No. of Flats	1,019
GIC Facilities [1]	- Sub-base/premises for: - Short Term Food Assistance Service Team (STFAST) - Home Care Services (HCS) for Frail Elderly Persons (2-team size non-kitchen based)
Private Open Space	Not less than 2,854m^2
Greenery Coverage	About 21%

Remarks:
[1] According to the applicant, the estimated total net operating floor area of the proposed facilities are 234.5m^2 (i.e. about 422.1m^2 GFA at the assumed factor of 1.8) and these floor space dedicated for Government, Institution and Community facilities (GIC), as required by the Government, has been disregarded in the calculation. Detailed design, layout and floor area of the proposed GIC facilities will be subject to review by the Social Welfare Department (SWD) in future.

2.7 Government Accelerates the Development of the Northern Metropolis

2.7.1 The Northern Metropolis ("NM") covers the Yuen Long District and North District, including new towns in Tin Shui Wai, **Yuen Long** and Fanling/Sheung Shui, various New Development Areas in different planning and development stages and their neighboring areas, with a total area of 30,000 hectares (about one third of the total area of Hong Kong). As stated in the Northern Metropolis Action Agenda, the vision of NM is a "new international I&T city" that integrates quality life, promising industries and culture and leisure and the goals are as follows:-

- Providing land and housing
- Industry-driven planning and a better home-job balance
- Promoting integration of the GBA
- Infrastructure-led, railways as backbone
- Developing a "Northern Metropolis University Town"
- Ecological conservation, urban-rural integration
- Developing diversified arts, culture, sports and youth facilities
- Establishing presence of government departments to drive development

2.7.2 The current term Government is determined to enhance the speed and efficiency in the development of NM, and the 15th Five-Year Plan just approved by the country also explicitly requires accelerating the NM development. According to the Legislative Council Paper No. CB(1)245/2026(03), construction works of a number of New Development Areas ("NDAs") are progressing at full steam, with about 120 hectares of land already formed, and about 900 hectares of "spade-ready sites" to be produced progressively in the next five years. At the same time, the Policy Address 2025 also recommended introducing dedicated legislation to accelerate the development of the NM.

2.8 Government's On-going Strategy to Ensure a Steady Supply of Residential Flats

2.8.1 The Government has put strong emphasis on upholding a steady supply of housing land in recent years to avoid the housing and land shortage problems. The Government has been adopting a series of measures to ensure steady housing supply.

Long Term Housing Strategy

2.8.2 The Long Term Housing Strategy ("LTHS") was first released by the Transport and Housing Bureau on 16 December 2014 to address the structural issues pertaining to Hong Kong's housing problem, and is being updated annually to make timely adjustments accordingly. According to the latest Annual Progress Report released in September 2025, the total housing supply target for the ten-year period from 2026-27 to 2035-36 is 420,000 units, of which 294,000 units are public housing supply and the remaining 126,000 units are private housing supply. The pubic/private split for the supply of new housing units would maintain at 70:30.

Policy Addresses

2.8.3 As announced in the Policy Address 2023 and 2024, the Government will continue to adopt multi-pronged strategy to increase housing land supply. The supply of land in the short-to-medium term is mainly achieved through reviewing land uses and appropriately increasing the development density to release development potential, including reviewing and optimizing the land uses of "Green Belt" areas, and revitalization of Hung Hom Station and nearby sites for residential and commercial uses. In medium to long term, the Government is actively pressing ahead with relevant studies on the various development areas in the Northern Metropolis. The Northern Metropolis Development Strategy announced by the Government would be the major source of housing supply, providing about 500,000 new housing units.

2.8.4 In the Policy Address 2025, the Government remains determined to sustain efforts in land production. The Government will assess the situation and take forward various projects in an orderly and pragmatic manner. The Government will also take into account the latest market changes when disposing land, ensuring a stable and healthy development of the market.

2.9 Government's Policy on Enhanced Gross Floor Area Exemption Arrangements For Carparks In Private Development Projects

2.9.1 As announced in the Policy Address 2025, the Hong Kong Government supports efficient land use through enhanced gross floor area (GFA) exemption arrangements for carparks in private developments to **reduce construction costs, shorten timelines, and boost residential flat provision without compromising overall development intensity**. Under the updated Buildings Department Practice Note for Authorized Persons, Registered Structural Engineers and Registered Geotechnical Engineers (PNAP) APP-2 as published on 4 November 2025, the policy removes the previous prerequisite of constructing underground carparks for full GFA exemptions. Instead, the authority will grant 100% GFA exemption for no more than two levels of above-ground carparks. For third and subsequent above-ground levels, 50% GFA exemption would be available, while underground carparks will continue to enjoy full exemption.

2.9.2 To facilitate the implementation of the enhanced measure, town planning procedures will be streamlined for approving height restrictions relevant to aboveground carparks. Planning applications for minor relaxations of height restriction due to the construction of no more than two levels of aboveground carparks would only require visual appraisals and, if the site involves major breezeways, simple reviews of the air ventilation impact assessment. For New Development Areas, while most development sites have height restrictions sufficient to accommodate two levels of aboveground carparks, the Government will initiate applications in accordance with town planning procedures afterwards.

2.10 Land Ownership

2.10.1 The Application Site is solely owned by the Applicant. The lease modification for residential use is ongoing and is anticipated to be executed in a few months’ time.

3 PROPOSED DEVELOPMENT SCHEME

3.1 The Proposed Development Scheme

3.1.1 The Proposed Development Scheme (*Appendix I* refers) for the Proposed Residential Development has been devised. Based on a plot ratio of 6.22 and a site area of 7,271m^2, the total gross floor area (GFA) of the Proposed Development Scheme would be about 45,226m^2. There will be a total of 1,068 units at an average flat size of about 40.8m^2. The proposed entrance to the development will be provided at Wang Yip Street East.

3.1.2 The Proposed Residential Development comprises 2 residential blocks, with 25 to 27 storeys, plus 1 refuge floor and over 1 level of clubhouse and 2 levels of carpark, retail and GIC facilities (with a total of not more than 31 storeys). The building height ranges from 105.7mPD to 112.7mPD. About 1,600m^2 of shop and services/eating places will be located on G/F fronting onto Keung Yip Street Rest Garden as well as Po Yip Street. Internal transport facilities will be provided on G/F and 1/F in response to APP-2.

3.1.3 The Proposed Development Scheme will also include the following welfare facilities on G-2/F of Tower 2 with reference to the approved Planning Application No. A/YL-304:

- Main-base of Short-term Food Assistance Service Team (STFAST); and
- Home Care Services (HCS) for Frail Elderly Persons (2-team size non-kitchen based).

3.1.4 The total NOFA and GFA of the two GIC facilities required by SWD are 234.5m^2 and 422.1m^2 (at a factor of 1.8) respectively. Floor area for GIC uses will be disregarded in the plot ratio calculation. Detailed design, layout, floor area will be subject to detailed design and review by SWD* at detailed design stage.

3.1.5 *Table 3.1* summarizes the key development data of the Proposed Residential Development:

* We note the following comments from SWD:
"Subject to the agreement of the incorporation of the welfare facilities in the development, the premises for the agreed welfare facilities should be provided as an integral part of the development and will be assigned back to the Financial Secretary Incorporated (FSI) as a Government Accommodation (GA) upon construction completion. Upon satisfactory completion of works by the developer, the Government will reimburse the developer the actual cost of construction or the consideration sum as stipulated in the land lease (to be confirmed by departments concerned before the lease modification), whichever is the lesser, according to the established practice. The service operator would be selected by SWD."

Table 3.1: Key Development Data

Overall Development			
Total Site Area	7,271m^2 (approx.)		
	Domestic	Non-domestic	Total
Maximum Plot Ratio	6.0	0.22*	6.22
GFA (approx.)	43,626m^2	1,600m^{2*}	45,226m^2
No. of Blocks	2		
No. of Units	1,068		
Average Flat Size	About 40.8m^2		
Building Height	29 – 31 storeys/ 105.7 – 112.7mPD		
Domestic Site Coverage	Not more than 33%		
Non-domestic Site Coverage	Not more than 92%		
Anticipated Population	2,777		
Private Open Space	Not less than 2,777m^2		
Internal Transport Provision – Residential and Commercial Portion			
Private Car Parking Spaces	150		
Motorcycle Parking Spaces	13		
L/UL Bay	3 HGV and 1 LGV		
Bicycle parking spaces	143		
Internal Transport Provision – Proposed Welfare Facilities**			
Light Bus Parking Spaces	1 space for Home Care Services (HCS) for Frail Elderly Persons		
Ambulance / Private Light Bus Lay-by	1		
L/UL Bay (for shared use)	1 HGV		

* GFA that is constructed or intended for use solely as GIC facilities (about 422.1m^2), as required by the Government, has been disregarded

** Required by Social Welfare Department for operational needs

3.2 Landscape Proposal, Open Space Provision and Recreational Facilities

3.2.1 The landscape design aims to respond to the site conditions, building form, and function and to provide a high-quality landscape scheme that would improve the overall site character for the proposed building blocks with a higher building height. The main factors to be taken into consideration are:

- Response to the site context, both in terms of landscape character and visual amenity;
- Supplement to the proposed building and its architectural style;
- Creation of a green and sustainable setting by maximising the opportunity for soft landscape;
- Improve the existing streetscape by creating open spaces and promoting outdoor activities; and
- Establishment of pleasant landscape areas which meet the varying needs of users.

3.2.2 There will be open spaces with different functions and activities at various locations/levels within the Site to cater for the active and passive recreational needs of the future residents. Total area of the communal open space will be not less than 2,777m^2 to meet the requirement under HKPSG. Please refer to *Appendix II* for details.

3.3 Internal Transportation Facilities Provision and Vehicular Access Arrangement

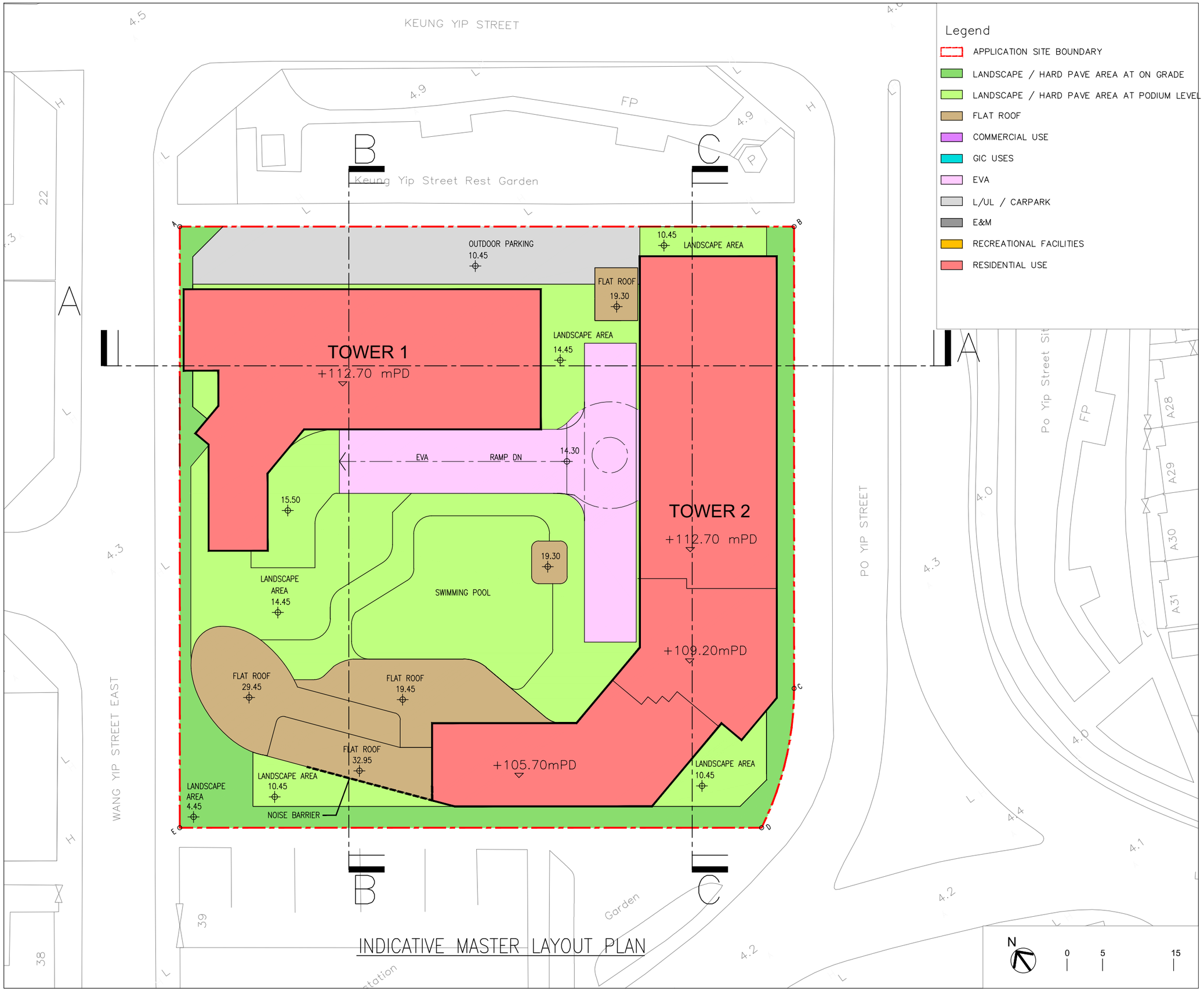
3.3.1 The Site fronts onto Wang Yip Street East, Keung Yip Street Rest Garden to the north, and On Lok Road Substation to the south. The vehicular run-in/out access of the Proposed Residential Development is located at Wang Yip Street East, on the north-western corner of the site boundary. The car parking and loading/unloading provisions would be provided in compliance with the HKPSG recommendations. The carpark will be located on G/F and 1/F in response to PNAP APP-2, providing 197 nos. of car parking spaces, 13 nos. motorcycles parking spaces, 4 nos. of L/UL bays and 144 nos. of bicycle parking spaces.

3.3.2 Long Yip Street is an eastbound road with 2 traffic lanes connecting Castle Peak Road – Yuen Long at its eastern end to Wang Tat Road at its western end, and where numerous franchised bus routes operate along. Po Yip Street, to the east of the Site, is a dual-carriageway road with 4 traffic lanes that connects Long Yip Street and TTIA. Whilst, Wang Yip Street East, Keung Yip Street and Hi Yip Street are single-carriageway local roads with 2 traffic lanes serving mainly the industrial buildings within TTIA.

3.3.3 The Site is highly accessible to both road-based and rail-based public transport services. The MTR Long Ping Station is located within 350m, or just around 6 minutes' walk away. Moreover, there are numerous franchised bus routes and Green Minibus (GMB) routes running operating close to the Site.

3.3.4 The 2033 junction capacity analysis was undertaken for the cases with and without the Proposed Residential Development and concluded that these junctions have sufficient capacity to accommodate the expected traffic volume in 2033 and the additional traffic by the Proposed Residential Development. Please refer to *Appendix III* for details.

3.3.5 Pedestrian headcounts have also been conducted at the concerned footpaths sections connecting the Site with the MTR Long Ping Station to estimate the future pedestrian flows during the Am and PM peak hours. The LOS assessment demonstrates the concerned footpaths will continue to have adequate capacity to accommodate the estimated pedestrian flows in 2033.



Legend

- APPLICATION SITE BOUNDARY
- LANDSCAPE / HARD PAVE AREA AT ON GRADE
- LANDSCAPE / HARD PAVE AREA AT PODIUM LEVEL
- FLAT ROOF
- COMMERCIAL USE
- GIC USES
- EVA
- L/UL / CARPARK
- E&M
- RECREATIONAL FACILITIES
- RESIDENTIAL USE

B.D. REFERENCE	屋宇署檔案
F.S.D. REFERENCE	消防處檔案
W.W.O. REFERENCE	水務署檔案
CAD FILE NAME	檔案編號
NOTES	注釋

NO. 修定號	REVISIONS 修定內容	DATE 日期	BY 經手人

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3RD DRAFT

Figure 3.1

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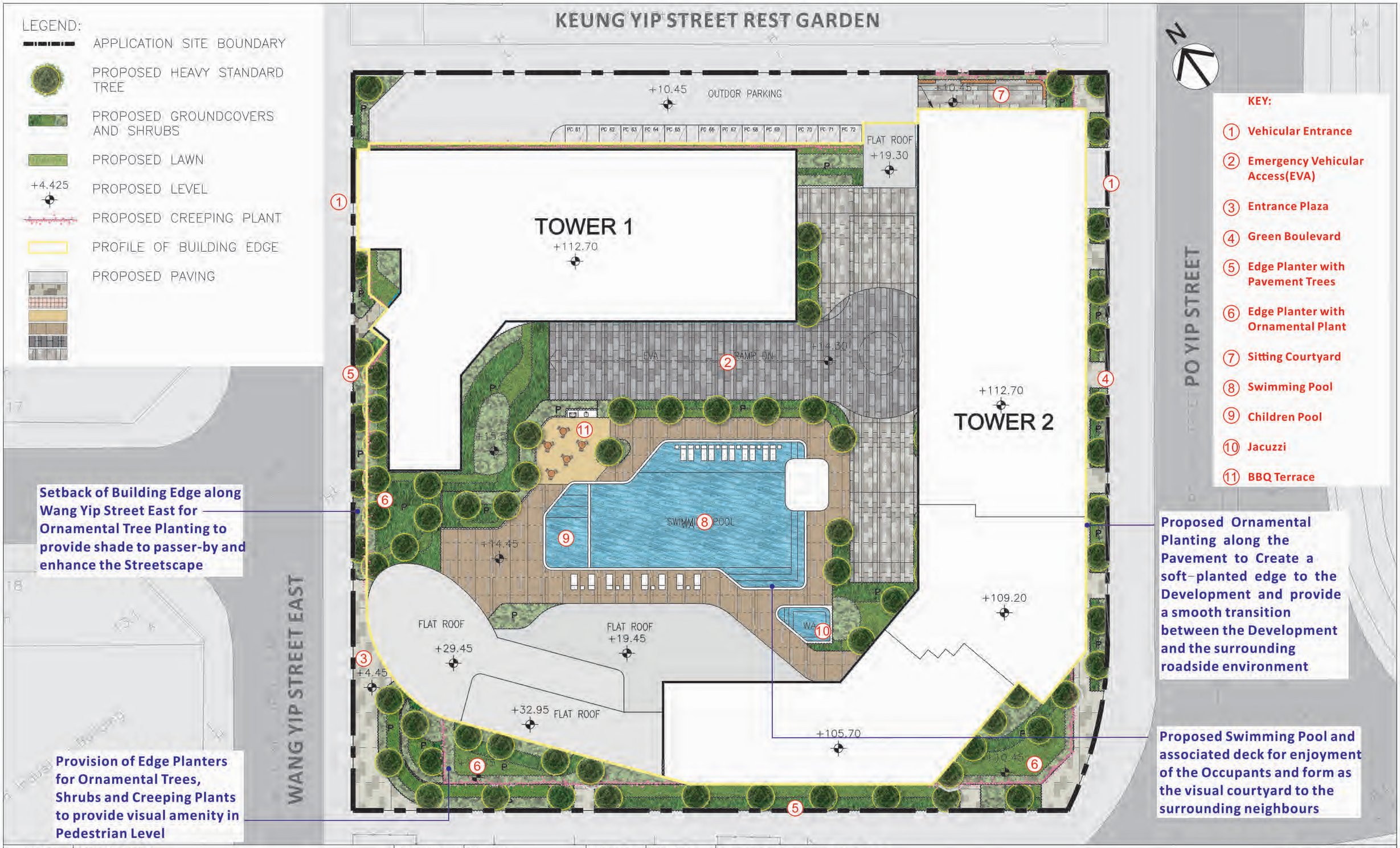
PROJECT 項目名稱

21-25 WANG YIP STREET EAST, YUEN LONG, NEW TERRITORIES, HONG KONG

TITLE 標題

INDICATIVE MASTER LAYOUT PLAN

SCALE 比例 1:500(A3)	DATE 日期 MAR 2026
DRAWN BY 製作人 –	CHECKED BY 檢查 –
JOB NO. 工程項目 N3147-H	DRAWING NO. 圖號 –



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PROJECT 工程項目
21–25 WANG YIP STREET EAST, YUEN LONG, NEW TERRITORIES, HONG KONG

DRAWING TITLE 圖紙名稱
LANDSCAPE MASTER PLAN (OVERALL)

SCALE 比例: 1:400
DATE 日期: MAR 2026
REVISION 校訂: –
DRAWING NUMBER 圖號: LMP01

DESIGNED 設計: TEL
DRAWN 繪圖: CAD
CHECKED 審核: TEL
APPROVED 審批: TEL

LanDes

LANDES LIMITED 景觀設計有限公司
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Figure 3.2

CAD FILENAME : C2616–LMP01

3.4 Improvement to the Walking Environment

3.4.1 The Proposed Development Scheme tries to improve the existing dull and monotonous walking environment by allowing opportunities for more street activities and street greening (*Figure 3.3* refers). Firstly, there will be a continue strip of shop frontage facing Keung Yip Street Rest Garden and Po Yip Street. Secondly, there will be 3.5m setback on G-2/F along Po Yip Street and 3m along the passage between the Site and the substation. Along Wang Yip Street East, there will also be a pocket landscaped area of about 120m^2 and 1.5m setback on G-2/F. These are going to offer a green and relaxed walking environment to neighbourhood and to inject street life and vibrancy within the area.

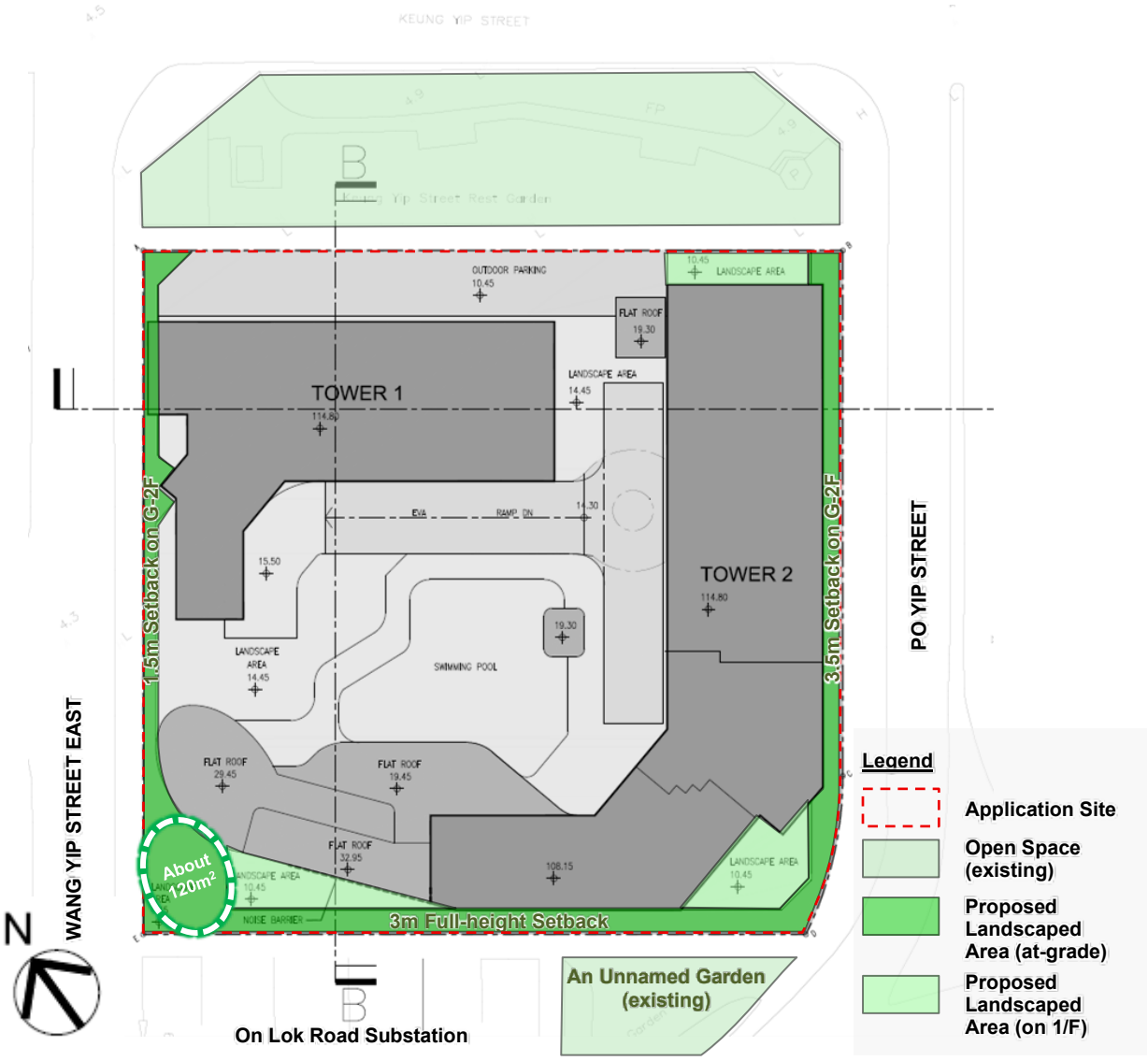


Figure 3.3 Landscaped Areas and Setbacks

3.4.2 The Site fronts onto Tung Tau Industrial Area Playground and Keung Yip Street Rest Garden. The Proposed Development Scheme adopts a terraced podium design concept along Keung Yip Street. The terraced design helps to break down the building mass and create better visual permeability (*Figure 3.4* refers).

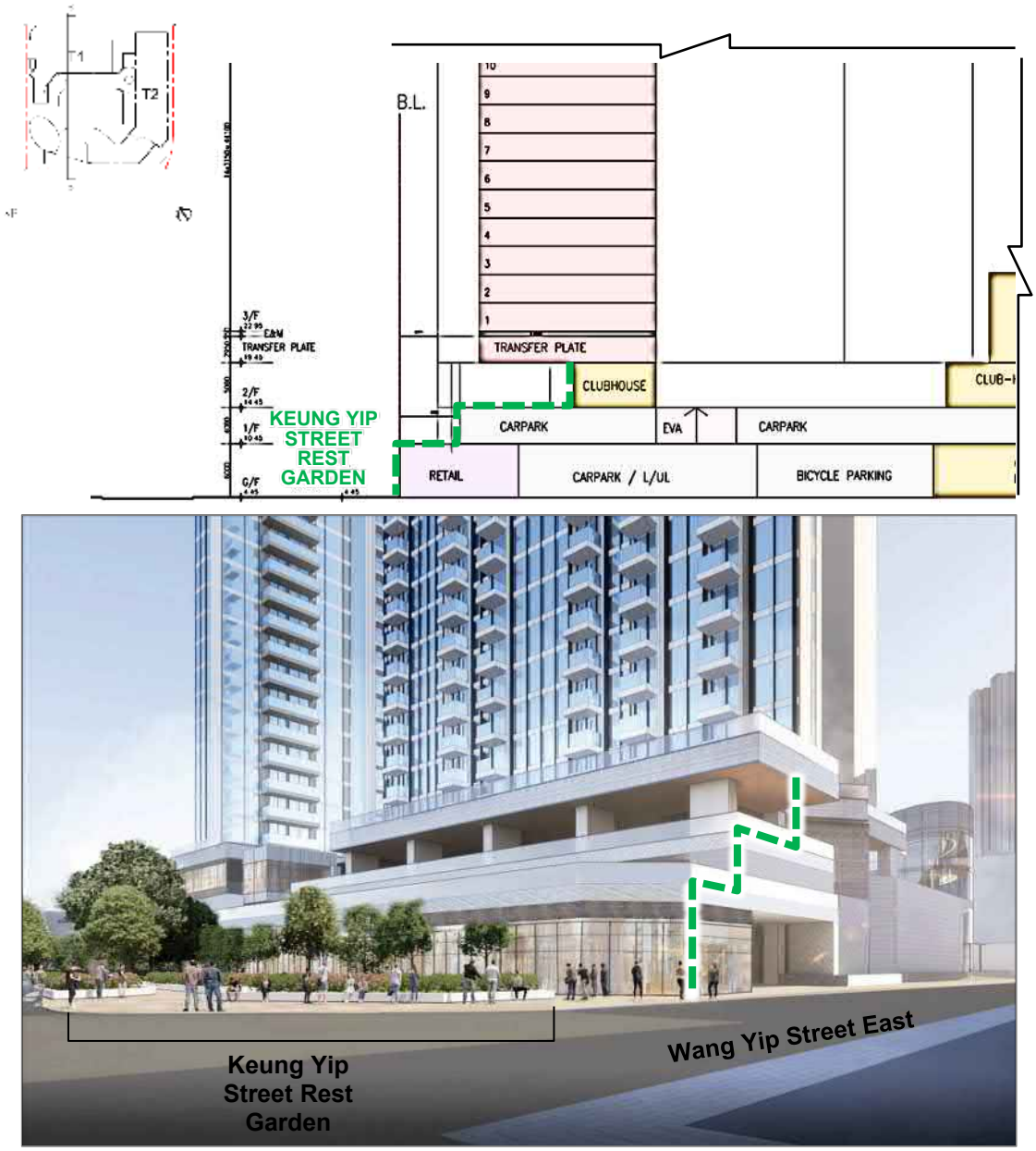


Figure 3.4 Stepped Podium Design

Figure 3.5 Viewing from Wan Yip Street East (Illustrative Drawing)

3.5 Stepped Building Height Profile

3.5.1 The building height of Tower 2 is proposed to step up from 105.7mPD to 109.2mPD and 112.7mPD in a south to north direction to add some visual interest to the urban skyline.

3.6 Provision of Retail and F&B Facilities to Serve the Local Community

3.6.1 Retail facilities will be provided on G/F of the Proposed Residential Development facing Keung Yip Street Garden and Po Yip Street to serve the future residents, the TTIA neighbourhood and even the visitors at the nearby TTIA Playground. Currently, there are a limited number of retail facilities within TTIA, be it F&B facilities or basic shopping facilities. The proposed retail floorspace will help to cater for the local need of the future residents and contribute to the making of a neighbourhood node.

3.7 Environmental Considerations

3.7.1 Environmental impacts in terms of noise and air quality impacts towards and perhaps from the Proposed Residential Development during construction and operational phrases have been considered to ensure environmental sustainability. Relevant mitigation measures have been incorporated into the design of the development where appropriate.

Air Quality

3.7.2 The Site is surrounded by carriageways, including Long Yip Street and Yuen Long On Lok Road to its south, Po Yip Street to its east, Keung Yip Street to its northeast and Wang Yip Street East to its northwest. Among these, Long Yip Street and Yuen Long On Lok Road are classified as Primary Distributor while the other road links are regarded as local distributor. With reference to the recommendations under HKPSG, minimum horizontal buffer separations of 20m and 5m are recommended for Primary Distributor and Local Distributor respectively. The shortest buffer distance between the Proposed Residential Development and the Primary Distributor (Long Yip Street) is 23m; and distances from the concerned Local Distributors: Po Yip Street and Keung Yip Street are 10m and 38m respectively. The separation distances between the Proposed Residential Development and these carriageways are in line with the HKPSG requirement which result in no excessive air quality impact in relation to vehicular emission is anticipated. For Wang Yip Street East, the separation distance is only 4m, thus fixed glazing is proposed at strategic locations and no fresh air intake will be located within the 5m buffer zone.

3.7.3 As the Site is locating at the periphery of an industrial area, potential emissions from the industrial activities have also been taken into account. It is found that there is no industrial undertaking and chimney observed within 200m from the Site. Hence, the Proposed Residential Development is unlikely to be affected by air quality impact due to industrial operation with respect to the recommended separation distance stipulated in the HKPSG. Please refer to *Appendix IV* for details.

Road Traffic Noise

3.7.4 Major road traffic noise source with respect to the Site is found to be arising from Long Yip Street and Po Yip Street. Direct noise mitigation measures are proposed, including Acoustic Window/ Enhanced Acoustic Balcony (Baffle Type), fixed glazing with or without maintenance window, door with auto-closing mechanism, vertical acoustic fin and sound absorption material, to achieve full compliance with respect to the road traffic noise criteria. Please refer to *Appendix IV* for details.

Railway Noise Impact

3.7.5 Tuen Ma Line Long Ping Station and its associated viaduct track line are aligned to the southwest and south of the Application Site. Having reviewed the location of the station, its configuration and parapets/solid fence wall available etc, the Proposed Residential Development would adopt building re-entrant design (including provision of door with auto-closing mechanism and fixed glazing with or without maintenance window), vertical acoustic fin and sound absorption material in order to comply with the relevant Noise Control Ordinance standard. Please refer to *Appendix IV* for details.

Fixed Sources Noise Impact

3.7.6 Various fixed noise sources are identified within 300m from the Site, including garages, metal workshops and electrical sub-station which might be potential environmental nuisance to the Proposed Residential Development. The assessment concluded that the Site would not be subject to any adverse fixed noise impact from the sources above with the set of noise mitigation measures in place. Furthermore, the ventilation and air conditioning systems for the carpark, plant room etc. are designed and installed in compliance with relevant HKPSG noise criteria to ensure the fixed noise generated by the Proposed Residential Development would not cause excessive impact to neighboring noise sensitive uses. Please refer to *Appendix IV* for details.

Construction Phase Environmental Impact

3.7.7 During construction, major air quality impact would be fugitive dust impact in relation to dusty activity and emission from dusty materials along with other emissions due to the use of diesel-powered equipment. It is well-noted and best management practice will be adopted where appropriate to suppress the impact.

3.7.8 Construction noise is usually generated by using powered mechanical equipment. It will then be controlled with reference to relevant technical memorandum and with best management practice to be adopted where appropriate to minimize the impact.

3.7.9 Water pollution due to sediments, construction runoff and drainage, sewage effluent and liquid spillage would disturb the water quality, however, the aforementioned will be closely monitored and managed, and no sewage effluent discharge will be allowed in the Proposed Residential Development. Waste generation during construction will be sorted and handled in compliance with the Waste Disposal Ordinance and relevant regulations.

3.7.10 With adequate mitigation measures incorporated during the construction phase of the project as well as best management practices throughout the process, environmental impacts arising would be acceptable.

Sewerage Impact

3.7.11 There is a Ø750mm sewer running along Wang Yip Street East and flows south-westwards to Wang Yip Street South, which collects sewage from both upstream and downstream catchments. Wastewater to be generated from the Proposed Residential Development has been assessed against the capacity of existing sewers. It is assumed that wastewater will be primarily contributed by the residents, clubhouse staff and commercial area/social welfare facilities’ employee after the redevelopment. The comparison of the estimated sewage flow to be generated from the Proposed Residential Development and the capacity of the existing sewerage system suggested that there is sufficient capacity to cater for the overall sewage discharge. No adverse sewerage impact is anticipated to the public sewerage network. Please refer to *Appendix V* for details.

4 PLANNING JUSTIFICATIONS

4.1 Echo with the Government's Determination of Developing the Northern Metropolis at a Rapid Pace

4.1.1 The Northern Metropolis ("NM") covers a total area of 30,000 hectares (about one third of the total area of Hong Kong) in the New Territories. The Application Site in Tung Tau near Long Ping Station falls within the future NM. The current term Government is determined to enhance the speed and efficiency in the development of NM in many ways in response to the 15th Five-Year Plan. The Proposed Residential Developments echoes with the goals of the development of NM in the following ways:

Goals (extracted from Northern Metropolis Action Agenda)	Proposed Residential Development
Providing land and housing	Produce **1,068 domestic units** in 2030
Industry-driven planning and a better home-job balance	Produce 1,068 domestic units **near Tung Tau Industrial Area** and just **2 stops away from the future Hung Shui Kiu Station**
Promoting integration of the GBA	The proximity to Long Ping Station facilitates cross-border travel
Infrastructure-led, railways as backbone	The Site is located just **350m away from Long Ping Station**
Developing a "Northern Metropolis University Town"	N/A
Ecological conservation, urban-rural integration	N/A
Developing diversified arts, culture, sports and youth facilities	N/A
Establishing presence of government departments to drive development	N/A

4.2 Respond to the Government's Desire to Expedite Developments

4.2.1 The Chief Executive announced in the Policy Address 2025 that the Government "*will improve the efficiency of land production and lower construction costs by streamlining approval processes, optimising administrative procedures, strengthening internal collaboration, applying technology, reviewing relevant standards and more*". The Government then updated the Buildings Department Practice Note for Authorized Persons, Registered Structural Engineers and Registered Geotechnical Engineers (PNAP) APP-2 in November 2025 correspondingly. The policy removes the previous prerequisite of constructing underground carparks for full GFA exemptions and will grant 100% GFA exemption for no more than two levels of above-ground carparks with an aim to effectively reduce construction costs and expedite developments.

4.2.2 Being located in Yuen Long New Town, abutting Tung Tau Industrial Area and well served by mass transit, the Site has great potential in providing more residential flats at this early stage of the development of the Northern Metropolis ("NM"). While the planned I&T developments and job opportunities will be realised step-by-step and would straddle across ten to twenty years, the Proposed Residential Development at the Site near Long Ping Station would be able to produce **1,108 domestic units in 2030**, just two stops away from the future Hung Shui Kiu Station.

4.2.3 The Application Site is solely owned by the Applicant; and the lease modification is ongoing and will be executed in a few months' time. The Site is ready for implementation. Benefited by the updated PNAP APP-2 which reduces construction costs, shorten timelines, and boost residential flat provision without compromising overall development intensity, the Proposed Residential Development is in line with the Government's rapid pace in development.

4.3 Major Development Parameters of the Proposed Development Scheme are Similar to the Approved S16 Scheme

4.3.1 On 22 December 2023, TPB approved the S16 Planning Application under application No. A/YL/304. The table below shows the comparison of the major development parameters of the approved S16 scheme and the current Proposed Development Scheme:

	Approved S16 Scheme	Proposed Development Scheme	Changes
Site Area	About 7,271m²	About 7,271m²	No Change
Total Gross Floor Area - Domestic - Non-domestic	About 45,226m² About 43,626m² About 1,600m²	About 45,226m² About 43,626m² About 1,600m²	No Change No Change
Total Plot Ratio - Domestic - Non-domestic	6.22 6 0.22	6.22 6 0.22	No Change No Change
No. of Blocks	3 - 2 for residential with lobbies, shop and services/ eating places, residents' club house and social welfare facilities - 1 for shop and services and plant rooms	2	-1

	Approved S16 Scheme	Proposed Development Scheme	Changes
Max. Building Height	Non-domestic block: 3 storeys/19.45mPD Residential blocks: 27 storeys above 2-storey podium / 100.75mPD (excluding 2 basement levels)	25 to 27 storeys (+ refuge floor) above 3-storey podium / 105.7 – 112.7mPD (without basement level)	Domestic floor: No Change +1 Refuge Floor +1 Podium Floor
No. of Flats	1,019	1,068	+49
GIC Facilities [1]	Sub-base/premises for: - Short Term Food Assistance Service Team (STFAST) - Home Care Services (HCS) for Frail Elderly Persons (2-team size non-kitchen based)	Sub-base/premises for: - Short Term Food Assistance Service Team (STFAST) - Home Care Services (HCS) for Frail Elderly Persons (2-team size non-kitchen based)	No Change

4.3.2 Changes in development parameter to the approved S16 scheme rest on the proposed building height and number of flats to be provided only. Since the building height under the approved S16 scheme has already exceeded the Building Height Restriction on the extant OZP, this is neither a Class A nor Class B Amendment under the Town Planning Board Guidelines on Class A and Class B Amendments to Approved Development Proposals (TPB PG-No. 36C).

4.3.3 The Proposed Development Scheme has taken into account the latest PNAP APP-2 published on 4 November 2025, which grant 100% GFA exemption for no more than two levels of above-ground carparks, and some design updates as the project has got into detailed design stage. In terms of building height, the Applicant has intentionally kept the number of domestic storey unchanged. The increase in building height comprises a higher floor-to-floor on G/F to meet the headroom requirement for loading/unloading facilities, an aboveground carpark level with reference to the latest PNAP APP-2, a clubhouse level above the carpark level, a refuge floor to fulfil requirements stipulated by the Buildings Department and Fire Services Department and some design changes upon detailed design.

4.4 The Proposed Building Height is Considered Acceptable

4.4.1 The Applicant has made an endeavour to maintain the domestic site coverage (i.e. ≤33%), building separation, stepped height profile and to provide as much setback as possible while seeking a further relaxation in Plot Ratio Restriction (from PR5 to PR6.5 with reference to the recommendations of the updated HKPSG; *Section 4.3* refers). The proposed building height comprises increase in number of domestic

floors that corresponds to the 30% increase in plot ratio, a refuge floor to fulfil the requirements on means of escape in case of fire and 2 levels of aboveground carpark (to be provided with reference to PNAP APP-2). Not least, the Proposed Development Scheme would be able to meet the relevant criteria for consideration of relaxation as follows:

Relevant Criteria for Consideration of Relaxation	Proposed Development Scheme
(a) amalgamating smaller sites for achieving better urban design and local area improvements	N/A
(b) accommodating the bonus plot ratio granted under the Buildings Ordinance in relation to surrender/dedication of land/area for use as public passage/street widening	N/A
(c) providing better streetscape/good quality street level public space	The Proposed Development Scheme provides setback on 3 sides of the Site
(d) providing separation between buildings to enhance air ventilation and visual permeability	The Proposed Development Scheme provides a 15m building gap between T1 and T2 that fronts onto the existing open spaces
(e) other factors, such as site constraints, need for tree preservation, innovative building design and planning merits that would bring about improvements to townscape and amenity of the locality, provided that no adverse landscape, visual and air ventilation impacts, as appropriate, would be resulted from the innovative building design.	The increase in PR (from PR5 to PR6.5) is in line with the recommendations of the updated HKPSG. Technical assessments results demonstrate that the Proposed Development Scheme would not generate insurmountable adverse impact.

4.5 Provide Planning and Design Merits

4.5.1 The Proposed Residential Development will continue to provide the committed GIC facilities as requested by the Social Welfare Department. There will also be retail and dining facilities to serve the neighbourhood. All these will be placed along Keung Yip Street Rest Garden and Po Yip Street with direct street access. Such arrangement will help to activate and energise the street environment.

4.5.2 The Proposed Development Scheme will also continue to provide a 15m-wide building separation between the proposed towers and a stepped building height profile. As described in *Section 3.4*, there will be setback on 3 sides of the Site. Not least, there will be multi-level greenings and a recessed corner at the eastern corner on Wang Yip Street East. These design elements would help to create space for landscaping and bring enhancement to the streetscape.

4.6 No Unacceptable Visual Impact

4.6.1 The Visual Impact Assessment in *Appendix VI* assesses the potential visual impact on four viewpoints. While the photomontage demonstrates that the Proposed Residential Development would be shielded by the existing medium-rise buildings on the outer ring of Tung Tau Industrial Area when viewing from VP3 hence would not be visible, photomontages from three of the other viewing points have shown that the Proposed Residential Development would not appear visually incompatible to the surrounding urban environment. Since the proposal involves changing from a medium-rise to a high-rise building, the visual change would result in slightly to moderately adverse visual impact. Yet, comparing with the Approved Development Scheme, the visual impact would be comparable.

4.6.2 In view of the above, the Visual Impact Assessment concludes that the Proposed Redevelopment Scheme**,** with 15m building gap**,** stepped height profile and refuge floor in place, would be congruous to the surrounding character of the adjacent buildings. Therefore, the Proposed Development is considered acceptable in the visual context.

4.7 The Site is IMMEDIATELY Available to Meet the Housing Demand

4.7.1 The Application Site is located at an already developed area near to MTR Long Ping Station. A flatted factory building has been erected at the Site since 1986. The Applicant is the **sole owner** of the Site. Construction works for the Proposed Residential Development can immediately proceed subsequent to the approval of this Application, GBP submissions and execution of the modified land lease. The Site has definite advantage in terms of availability for early implementation to meet market demand for flats (especially with convenient access to mass transit railway) in the short term.

4.8 Provision of Retail Amenities to the Local Community

4.8.1 Despite the Site favors from the prime location and is highly accessible to the retail and dining facilities as well as services in Yuen Long Town Centre, TTIA as well as the residential clusters to its east seem to have segregated from the Town Centre. Redevelopment of the Site offers an opportunity to provide basic retail and dining facilities to make up the deficiency.

4.8.2 The Proposed Development Scheme proposes accommodate about 1,600m^2 non-domestic GFA on ground floor facing Wang Yip Street East and Keung Yip Street for retail and/or F&B purposes with an aim to serve both the future residents and the local community including the nearby workers in TTIA and the nearby residents. Not least, this will also help to inject vibrancy to the area which is currently very quiet.

4.9 No Insurmountable Adverse Impact

Traffic

4.9.1 The 2033 junction capacity assessment was carried out against cases with and without the Proposed Residential Development and suggested that these junctions do have sufficient capacity to accommodate the expected traffic volume in 2033 as well as the additional traffic generated by the Proposed Residential Development (*Appendix III* refers).

4.9.2 The pedestrian counts at the footpaths connecting the Site with the MTR Long Ping Station also suggested that against future pedestrian flows during the AM and PM peak hours, they are still in adequate capacity to accommodate the estimated pedestrian flows in 2033.

4.9.3 The Traffic Impact Assessment (*Appendix III* refers) concluded that the Proposed Residential Development will result in no adverse traffic and pedestrian impact to the surrounding road network and is acceptable in traffic engineering perspective.

Traffic & Fixed Noise

4.9.4 An Environmental Assessment (*Appendix IV* refers) has been conducted to identify any potential environmental pollution sources and recommend on relevant mitigation measures. For example, vehicular and industrial emission on air pollution, road traffic, railway and fixed sources noises on noise pollution, and construction phase environmental pollution were appraised.

4.9.5 As confirmed in the industrial emission assessment, no chimney was identified within 200m from the Site therefore the buffer separation requirement can be well met. On top of that, the buffer separation between the air sensitive uses in the MLP and the nearest carriageways is in compliance with the HKPSG requirement. For locations where separation distance is only 4m, fixed glazing is proposed and no fresh air intake will be located within the 5m buffer zone. The Proposed Residential Development is not envisaged to be subject to significant air quality impact.

4.9.6 In terms of road traffic noise impacts, several key NSRs were identified to present the worst scenario, and it is concluded that with all practical noise mitigation measures (including Acoustic Window/ Enhanced Acoustic Balcony (Baffle Type), fixed glazing with or without maintenance window, door with auto-closing mechanism, vertical acoustic fin and application of sound absorptive material) considered, the Proposed Residential Development shall achieve a full compliance in road traffic noise.

4.9.7 Various fixed noise sources to the Site have been identified, including On Lok Road Electrical Substation, Metal Workshop and Garage and Vehicle Testing Centre. The assessment suggests that the Proposed Residential Development would not be subject to adverse fixed noise impact from fixed noise sources. Yet, in order to ensure the fixed noise generated by the Proposed Residential Development would not cause excessive impact to the neighboring noise sensitive uses, its ventilation and air conditioning systems will be designed and installed to meet the relevant HKPSG.

4.9.8 Environmental implication during construction of the Proposed Development Scheme can be minimized by adopting best management practice and implementing relevant environmental mitigation measures. No adverse construction phase environmental impact is anticipated.

Sewerage

4.9.9 In view of the proposed change in land use at the Site from industrial uses to residential purposes, the wastewater will thus be anticipated to be contributed by the residents, clubhouse staff and commercial area employee after redevelopment. The newly estimated sewage flow from the Proposed Residential Development and the capacity of the existing Ø750mm sewer running along Wang Yip Street East have been quantitatively assessed. The Sewerage Impact Assessment (*Appendix V* refers) confirms the sufficient capacity of the public sewerage system and the feasibility of the Proposed Residential Development.

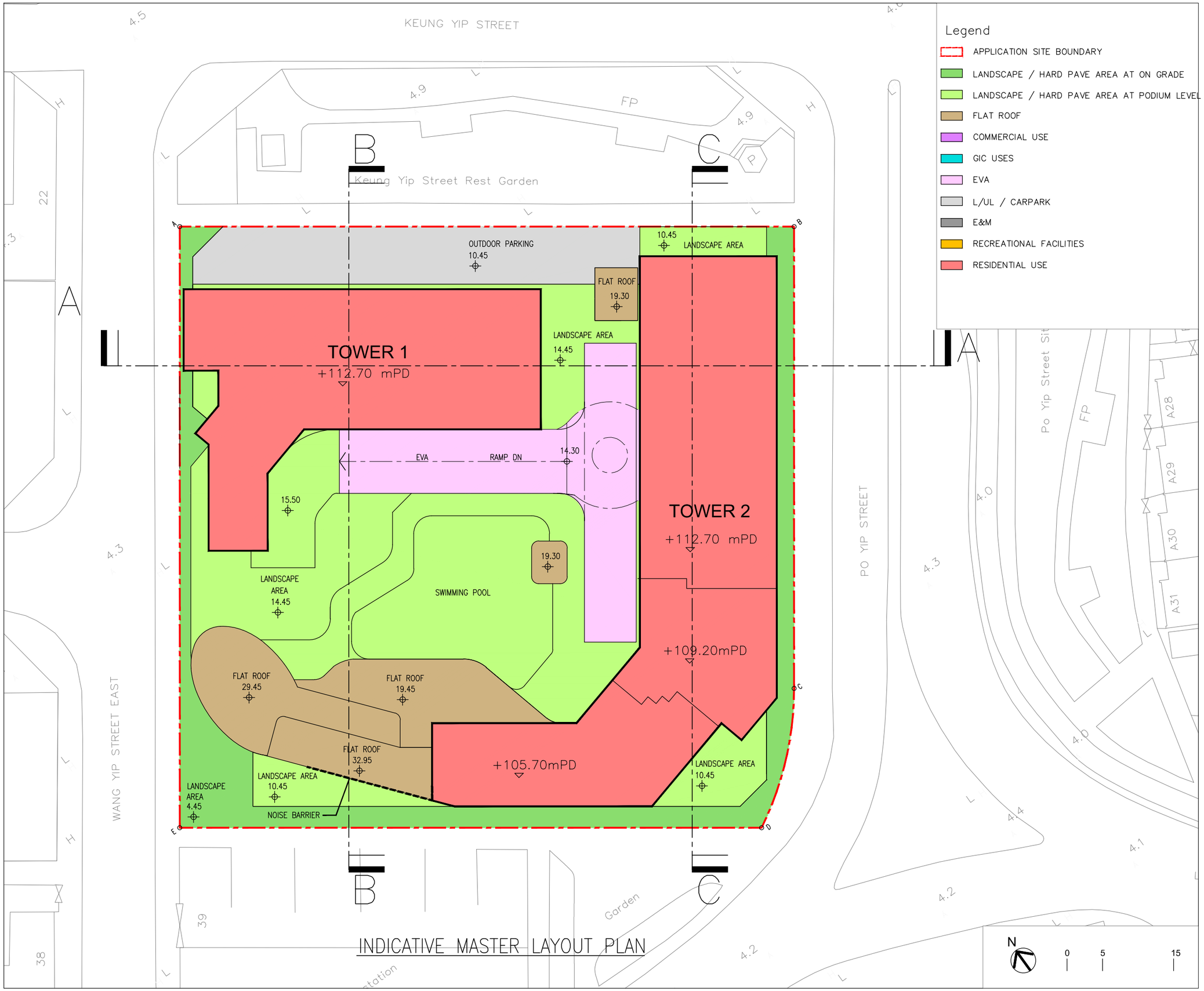
5 CONCLUSION AND SUMMARY

5.1 In light of the above, it is evident that the Proposed Residential Development should be favorably considered by the TPB from the land use planning grounds and technical points of view and based on the following:

a) The Proposed Residential Development at the Application Site in Yuen Long near Long Ping Station, which makes way for about **1,068 domestic units**, echoes with the Government's determination of developing the Northern Metropolis at a Rapid Pace;
b) The Proposed Residential Development responds to the Government's desire to expedite developments;
c) The proposed development intensity is in line with the recommendations on residential densities in the updated Hong Kong Planning Standards and Guidelines;
d) The Site is immediately available to meet the housing demand;
e) The Proposed Development Scheme proposes about 1,600m^2 non-domestic GFA on ground floor facing Wang Yip Street East and Keung Yip Street for retail and/or F&B purposes to inject vibrancy to the area;
f) The Proposed Residential Development will continue to provide GIC facilities as previously committed;
g) The Proposed Development Scheme would provide design merits such as 15m building separation, stepped height profile, terraced podium design, setbacks on 3 sides, multi-level greenings and a recessed corner on Wang Yip Street;
h) The proposed building height is considered acceptable; and
i) The Proposed Development Scheme would not induce adverse technical impacts.

Appendix I

Schematic Architectural Drawings



INDICATIVE MASTER LAYOUT PLAN

Legend

- APPLICATION SITE BOUNDARY
- LANDSCAPE / HARD PAVE AREA AT ON GRADE
- LANDSCAPE / HARD PAVE AREA AT PODIUM LEVEL
- FLAT ROOF
- COMMERCIAL USE
- GIC USES
- EVA
- L/UL / CARPARK
- E&M
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- RESIDENTIAL USE

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PROJECT 項目名稱

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TITLE 標題

INDICATIVE MASTER LAYOUT PLAN

SCALE 比例 1:500(A3)	DATE 日期 MAR 2026
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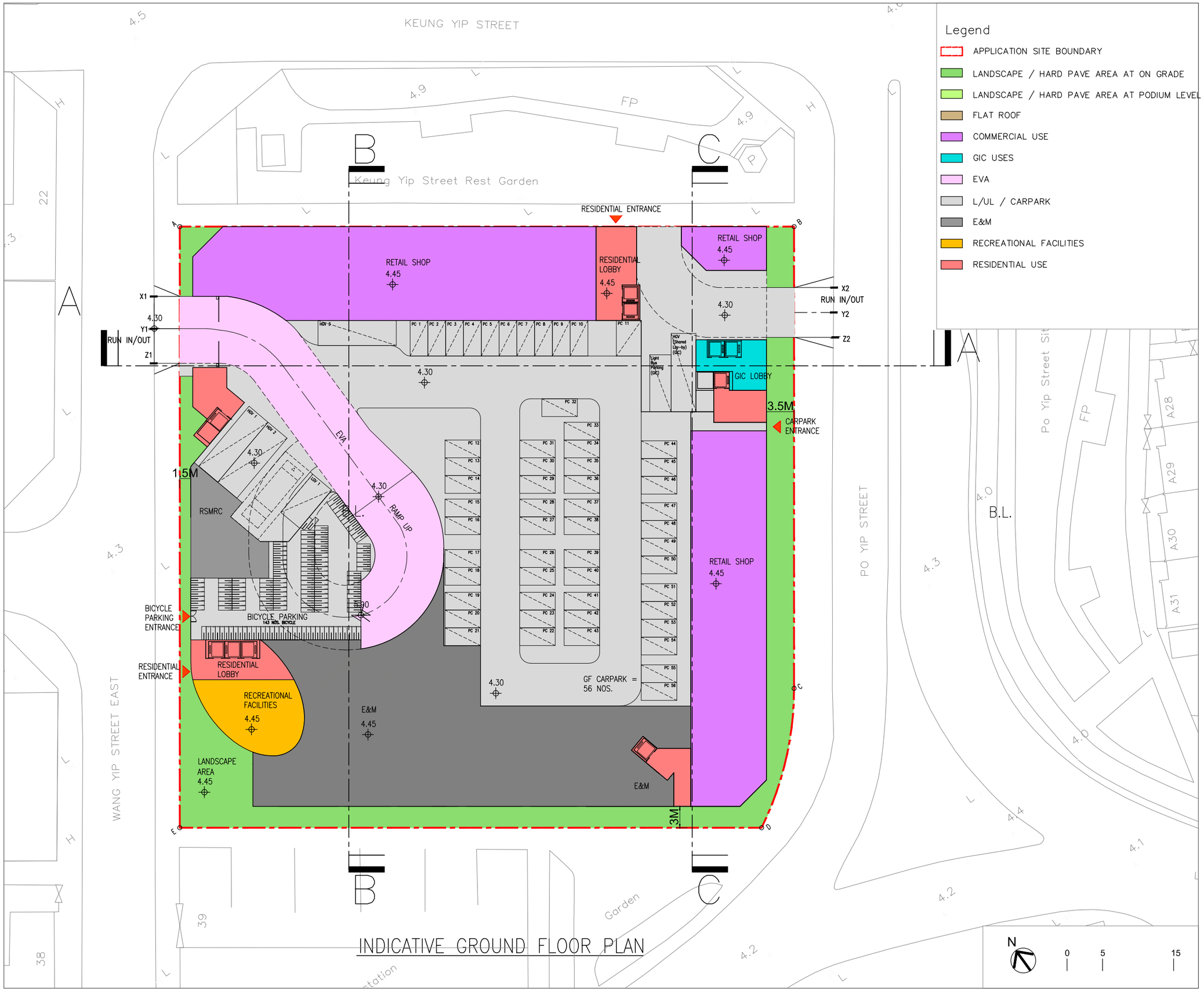

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INDICATIVE GROUND FLOOR PLAN

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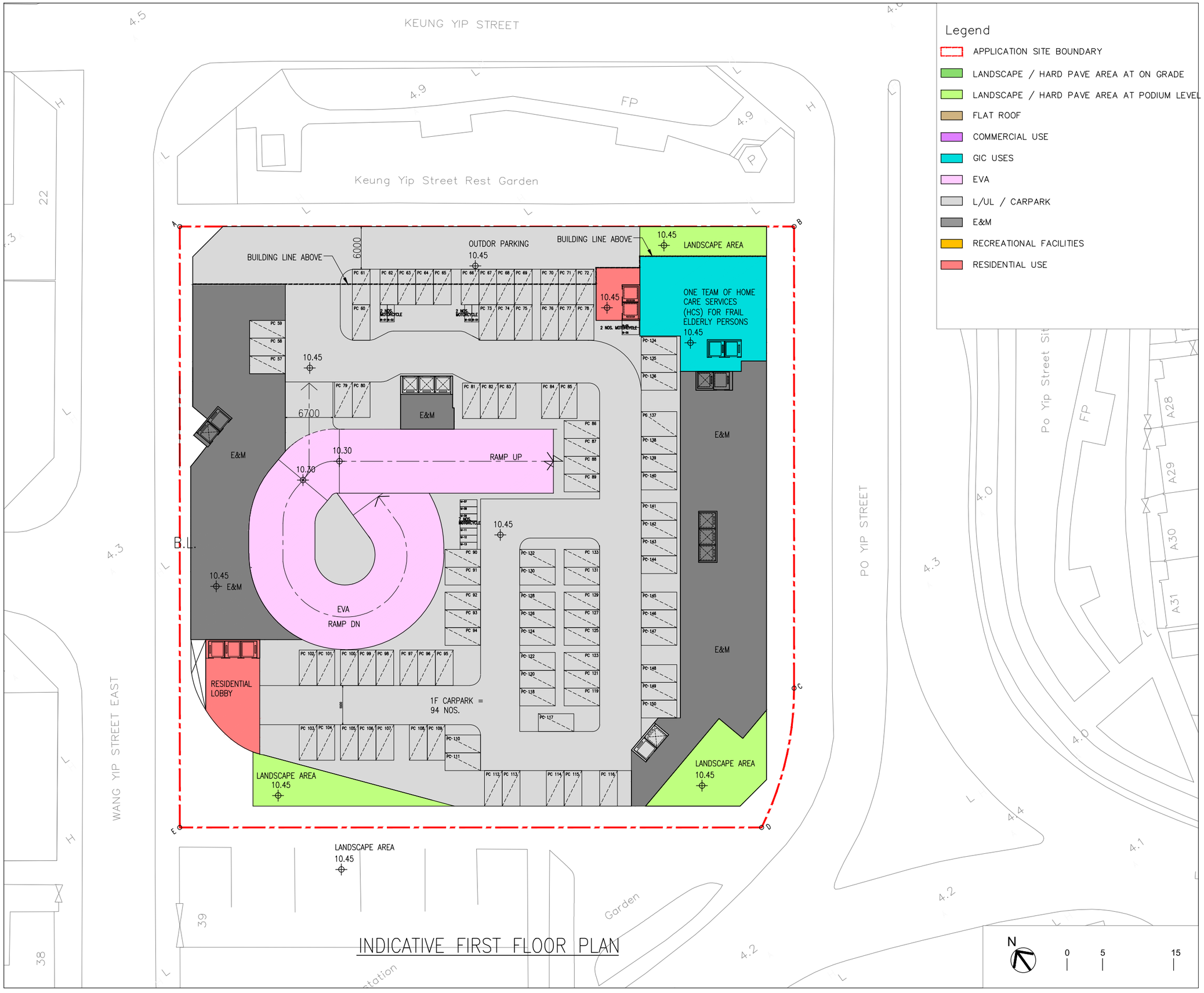

INDICATIVE FIRST FLOOR PLAN

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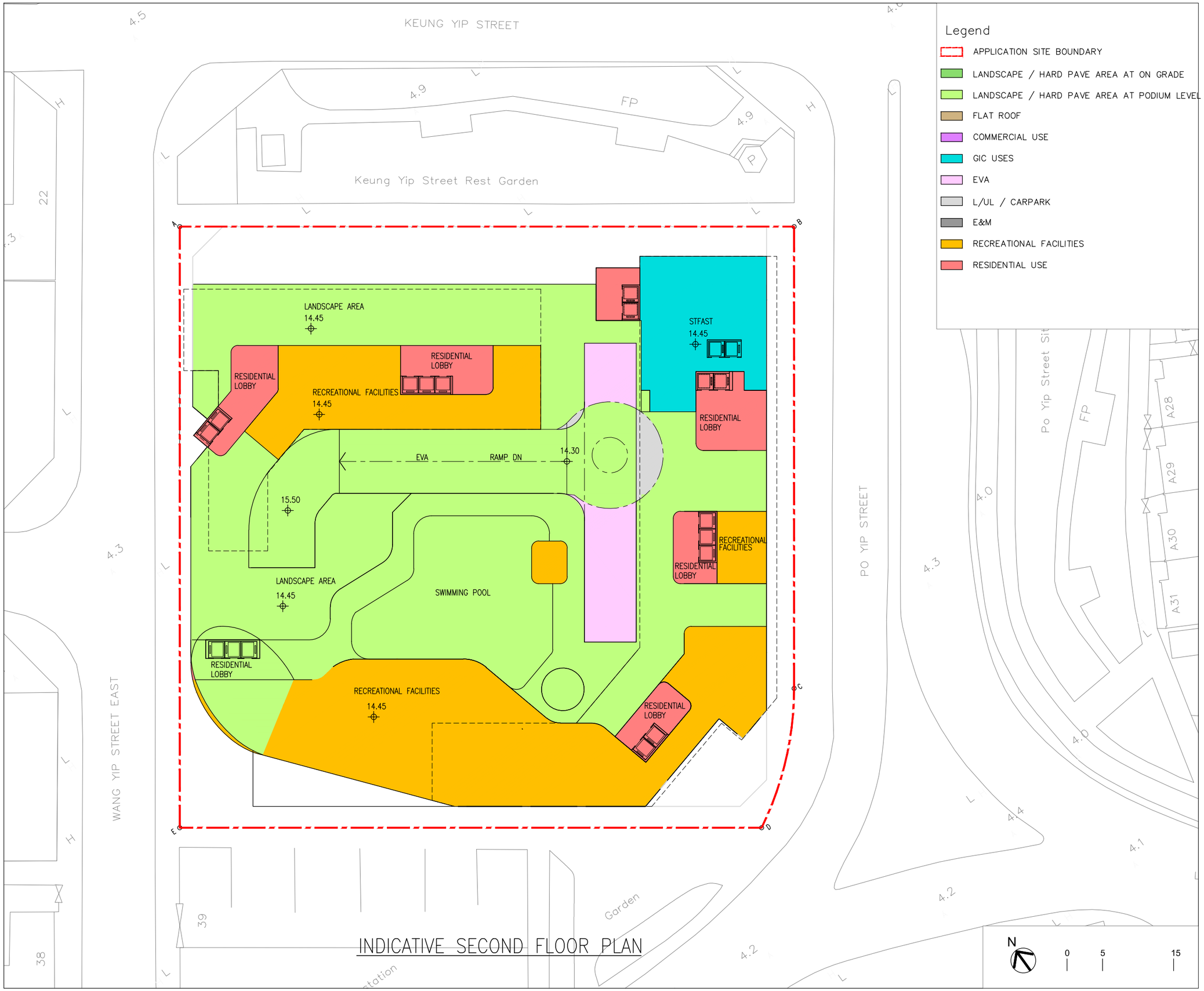

INDICATIVE SECOND FLOOR PLAN

Legend

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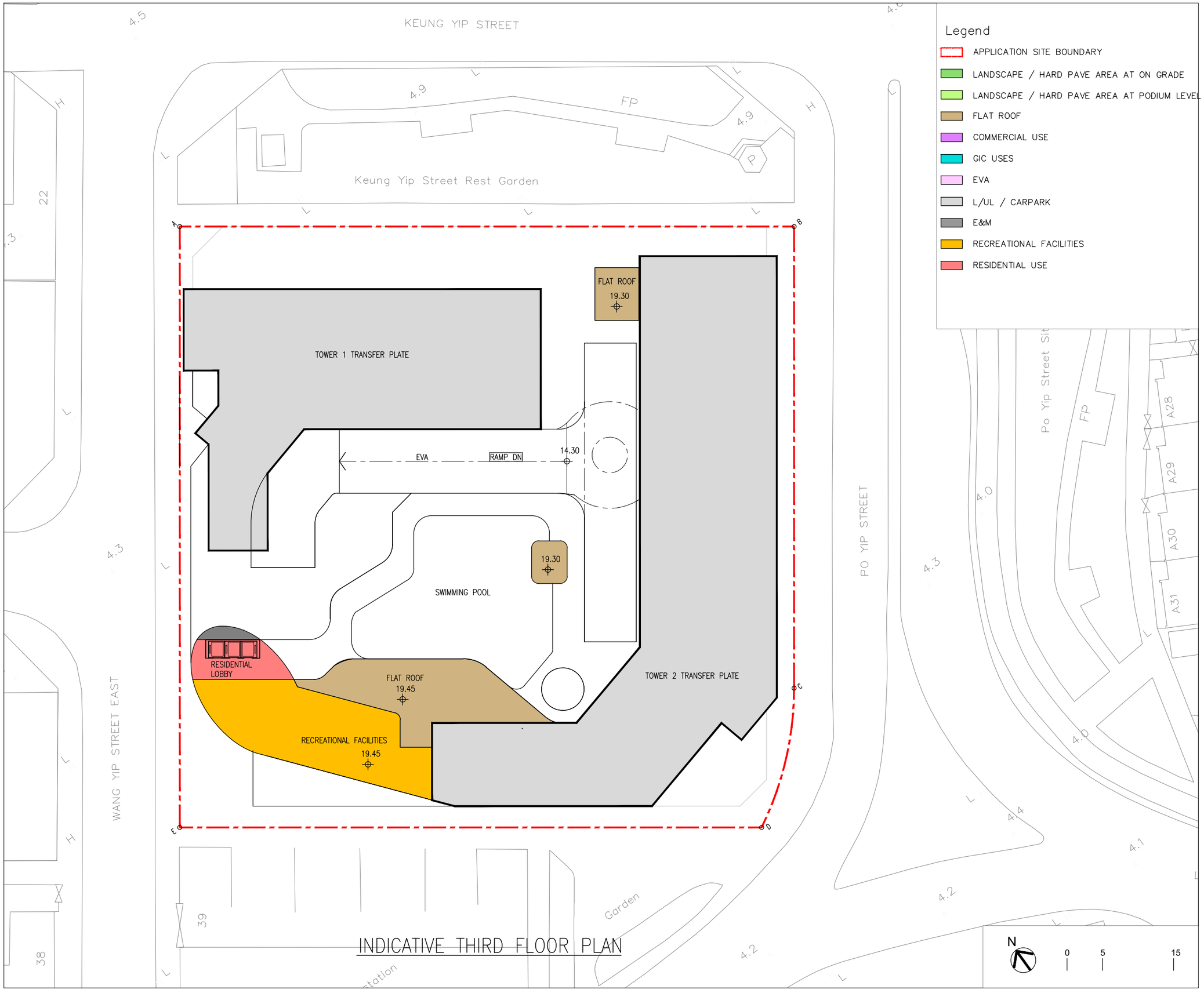

INDICATIVE THIRD FLOOR PLAN

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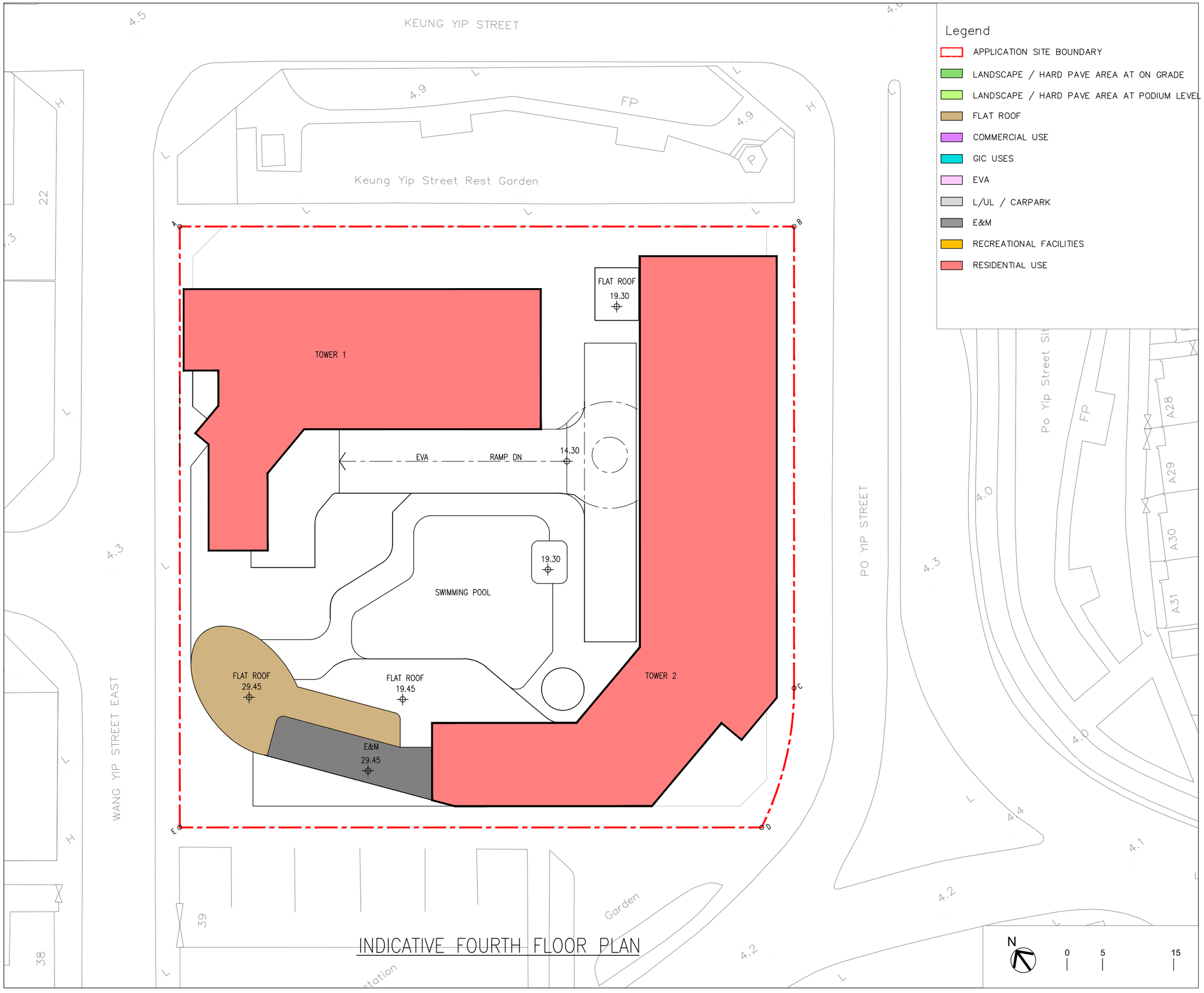

INDICATIVE FOURTH FLOOR PLAN

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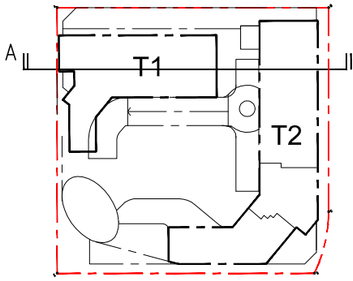

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Legend

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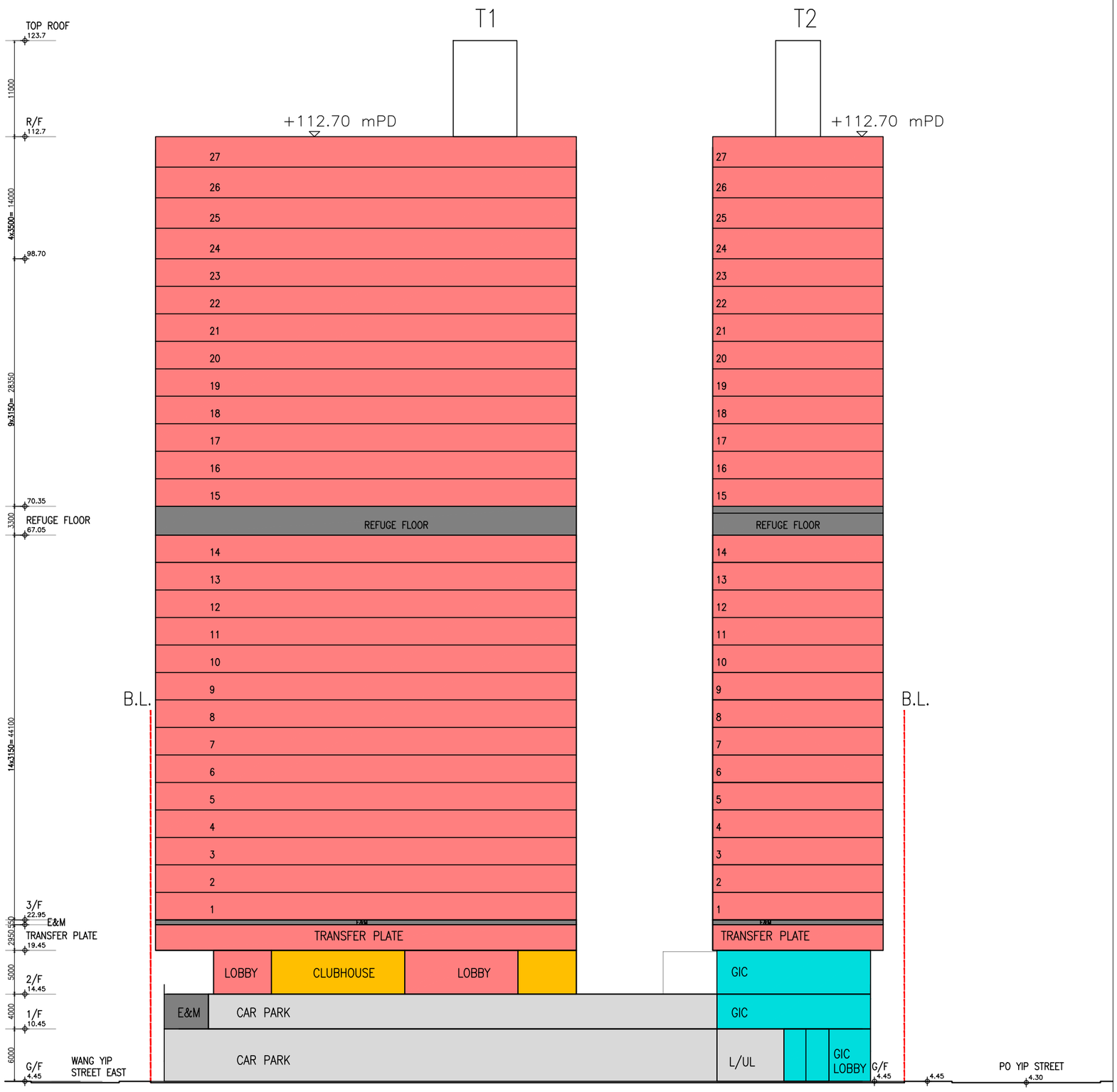

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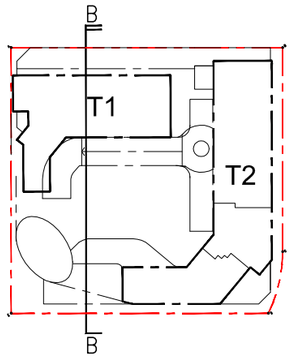

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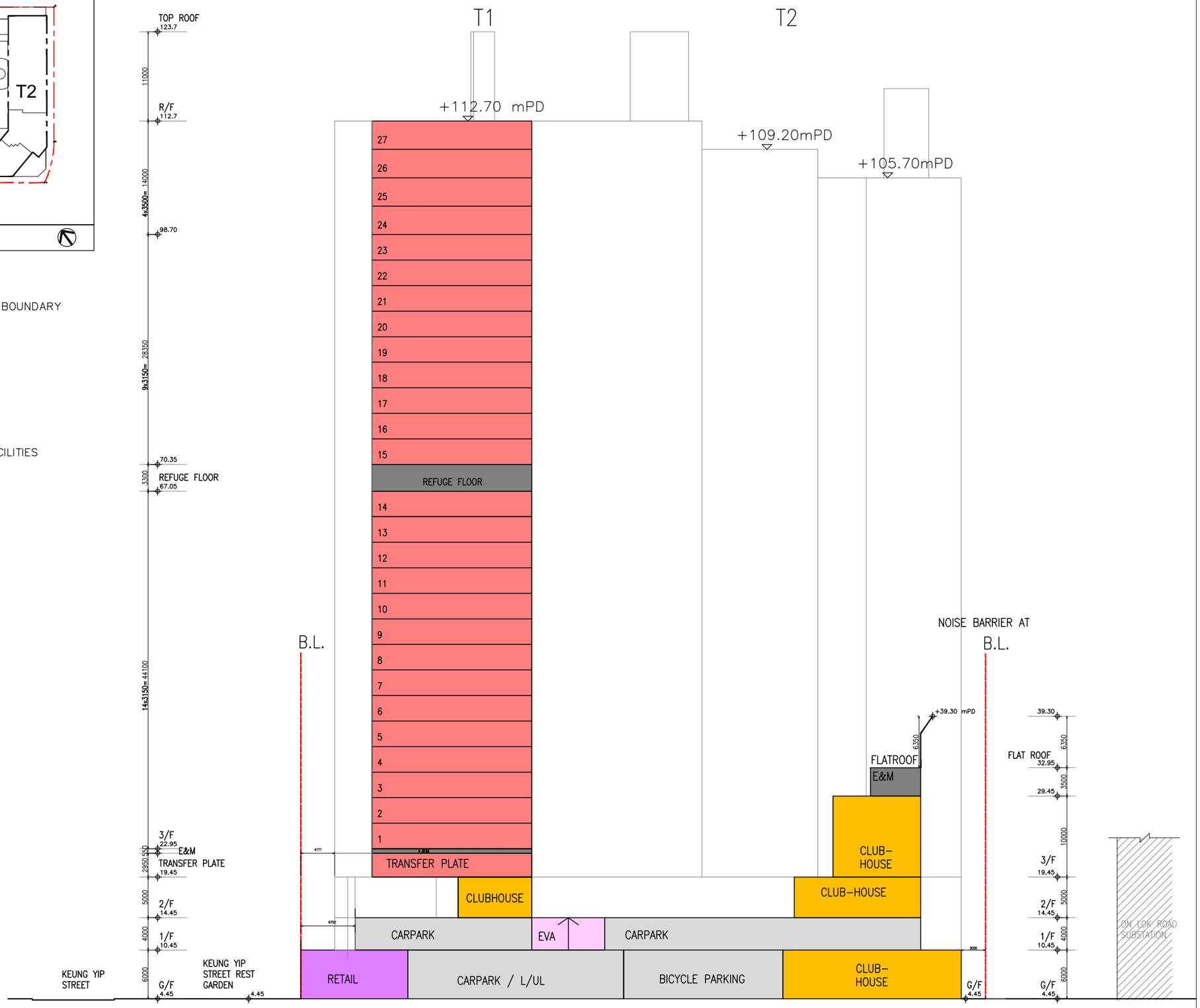

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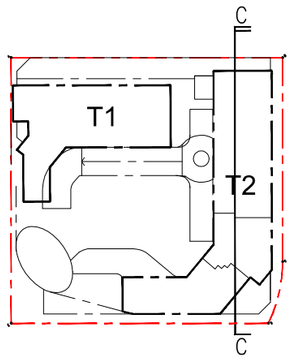
PROJECT 項目名稱

21–25 WANG YIP STREET EAST, YUEN LONG, NEW TERRITORIES, HONG KONG

TITLE 標題

INDICATIVE SECTION PLAN

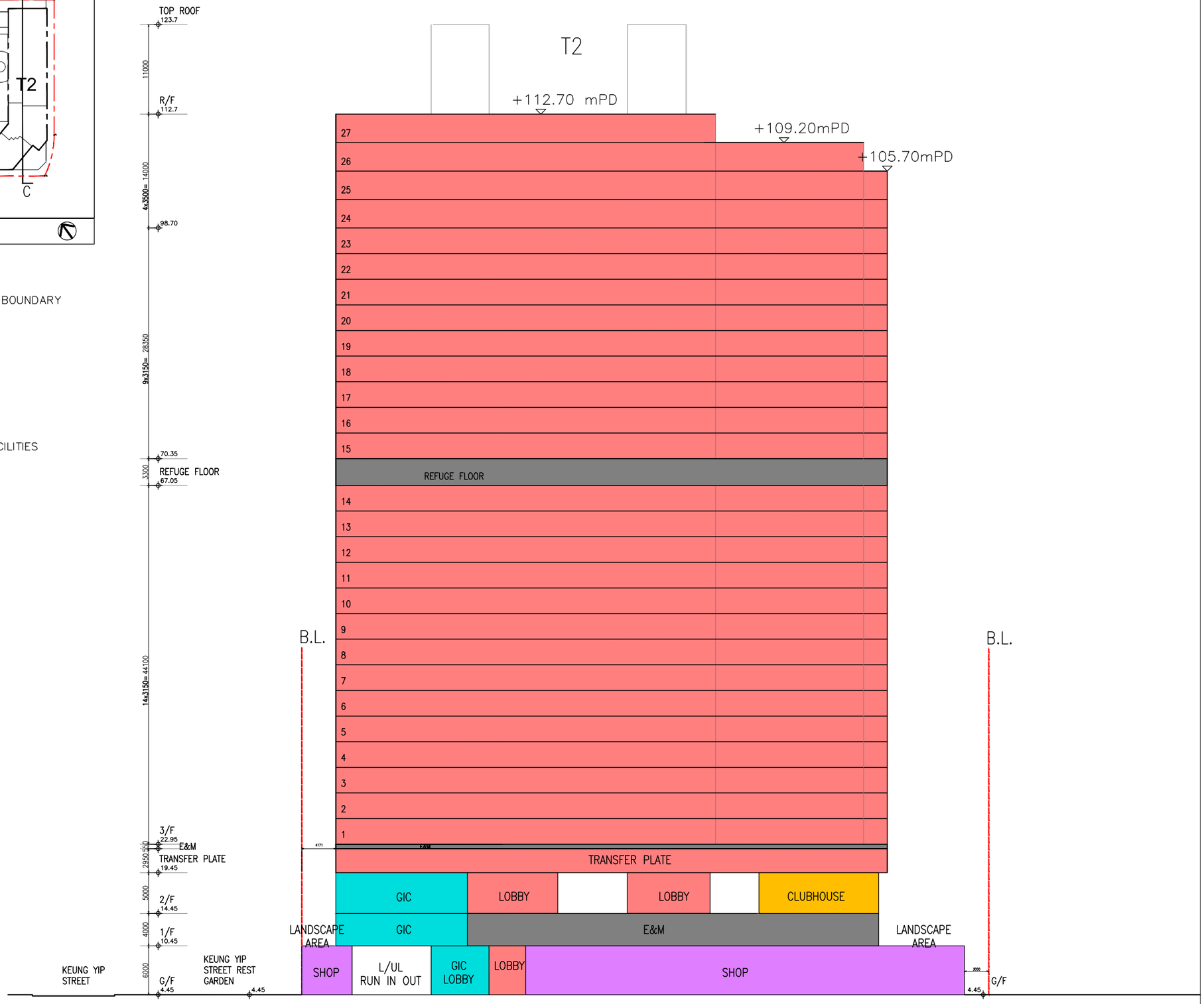
SCALE 比例 1:500(A3)	DATE 日期 APRIL 2026
DRAWN BY 製作人 –	CHECKED BY 檢查 –
JOB NO. 工程項目 N3147–H	DRAWING NO. 圖號 –



KP

Legend

- APPLICATION SITE BOUNDARY
- COMMERCIAL USE
- GIC USES
- EVA
- L/UL / CARPARK
- E&M
- RECREATIONAL FACILITIES
- RESIDENTIAL USE



SECTION C–C

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F.S.D. REFERENCE	消防處檔案
W.W.O. REFERENCE	水務署檔案
CAD FILE NAME	檔案編號
NOTES	注釋

NO. 修定號	REVISIONS 修定內容	DATE 日期	BY 經手人

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21–25 WANG YIP STREET EAST, YUEN LONG, NEW TERRITORIES, HONG KONG

TITLE 標題

INDICATIVE SECTION PLAN

SCALE 比例 1:500(A3)	DATE 日期 APRIL 2026
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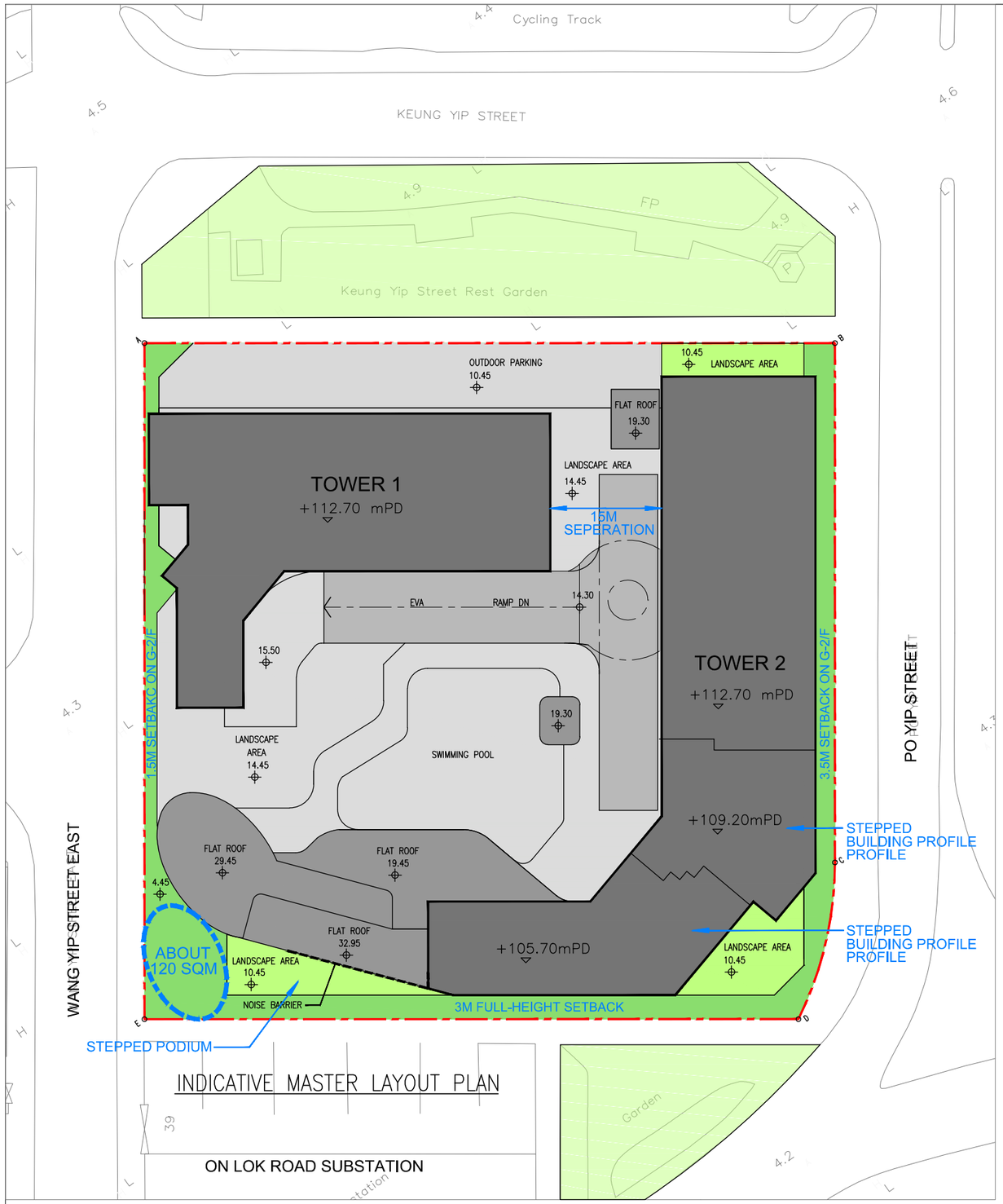
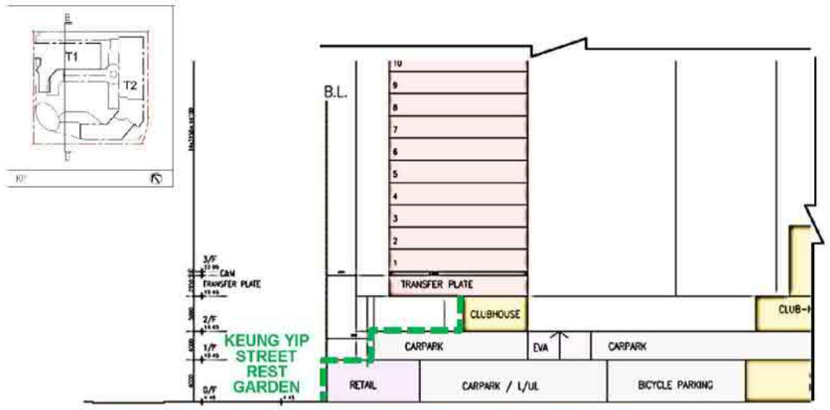
JOB NO. 工程項目 N3147–H	DRAWING NO. 圖號 –





Stepped Podium Design

Viewing from Wang Yip Street East (Illustrative Drawing)

B.D. REFERENCE	屋宇署檔案
F.S.D. REFERENCE	消防處檔案
W.W.O. REFERENCE	水務署檔案
CAD FILE NAME	檔案編號
NOTES	注釋

NO. 修定號	REVISIONS 修定內容	DATE 日期	BY 經手人

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PROJECT 項目名稱

21-25 WANG YIP STREET EAST, YUEN LONG, NEW TERRITORIES, HONG KONG

TITLE 標題

DESIGN MERIT

SCALE 比例: AS SPECIFIED	DATE 日期: MAR 2026
DRAWN BY 製作人: –	CHECKED BY 檢查: –
JOB NO. 工程項目: N3147-H	DRAWING NO. 圖號: –

Appendix II

Landscape Proposal

S.16 PLANNING APPLICATION FOR

PROPOSED RESIDENTIAL DEVELOPMENT AT

21-35 WANG YIP STREET EAST IN YUEN LONG

Landscape Proposal

1st Submission

by

Landes Limited

Date: 10 July 2026

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1.0 Introduction

2.0 The Site and its Context

3.0 The Proposed Development

4.0 Landscape Proposal

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Appendix B Planting Plans

Appendix C Common Greenery and Communal Open Space Provision

Appendix D Maintenance Schedule of Soft Landscape Works

1.0 INTRODUCTION

1.1 The proposed residential development is located at No. 21-35 Wang Yip Street East, Tung Tau Industrial Area, Yuen Long, New Territories (Y.L.T.L. 362) (The Proposed Development). This proposal is prepared as part of the planning application for the proposed development.

1.2 This report describes the concepts and principles underlying the Landscape Master Plan of the Proposed Development. It describes the proposed composite development and the associated landscape design. A more comprehensive package of proposals will be formulated at the detailed design stage of the Project.

1.3 This landscape proposal presents:

- The existing tree vegetation;
- The Landscape Master Plan;
- Site Coverage of Greenery;
- Communal Open Space Provision and
- Planting Proposal of the Proposed Development.

2.0 THE SITE AND ITS CONTEXT

2.1 The Site is situated at No. 21-35 Wang Yip Street East, Tung Tau Industrial Area, Yuen Long, New Territories. To the south of the Site is the new residential development – The Spectra while Tung Tau Industrial Area Playground is located on its north. It was bounded by Wang Yip Street East and Po Yip Street on its east and west respectively. The main vehicular and pedestrian is via Wang Yip Street East. Long Ping MTR Station is situated at about 200m southwest of the Site and within 10-minute walking distance.

2.2 The Site itself is occupied by existing Lai Sun Yuen Long Centre which is existing 9-storey industrial building and no vegetation was found within the Site. It is confirmed that no Old and Valuable Trees (OVT) and protected species were identified in accordance with the DEVB TCW No. 5/2020 - Registration and Preservation of Old and Valuable Trees and the Forests and Countryside Ordinance.

2.3 The landscape character of the Site and its surroundings are mixed ranging from industrial buildings, e.g. Yuen Long Trading Centre, Yuen Long Logistics Centre, residential developments, e.g. The Spectra, Twin Regency and The Parkville and villages, e.g. Sai Pin Wai and Nam Pin Wai.

3.0 THE PROPOSED DEVELOPMENT

3.1 The proposed development comprises two 28-storey residential towers constructed atop a 3-storey podium. The ground floor of the development will accommodate retail shops, residential lobbies, recreational facilities, and car parking while home care services (HCS) for frail elderly persons, indoor/ outdoor car parking, and landscaped areas are proposed at 1/F. The podium level at 2/F will serve recreational facilities, swimming pools, residential lobbies, STFAST, and outdoor recreation areas.

3.2 Landscape provision is mainly located at the G/F, 1/F, and 2/F levels of the residential towers in order to enhance local greenery at pedestrian level. Building edges have been set back along the western boundary fronting Wang Yip Street East, the eastern boundary fronting Po Yip Street, and the southern boundary adjoining the electrical substation, with a view to improving the local streetscape. Details of the proposed development are shown in the Architect's drawings submitted as part of the planning application.

4.0 LANDSCAPE PROPOSAL

4.01 The landscape design aims to respond to the site conditions, building form, and function and to provide a high-quality landscape scheme that would improve the overall site character for the proposed building blocks with a higher building height. The main factors to be taken into consideration are:

- Response to the site context, both in terms of landscape character and visual amenity;
- Supplement to the proposed building and its architectural style;
- Creation of a green and sustainable setting by maximising the opportunity for soft landscape;
- Improve the existing streetscape by creating open spaces and promoting outdoor activities;
- Establishment of pleasant landscape areas which meet the varying needs of users; and
- Minimization of future maintenance requirements.

4.02 Landscape drawings showing the proposed landscape treatment for the Proposed Development, and their underlying principles have been attached in **Appendix A** for ease of reference.

- Hong Kong Planning Standards and Guidelines;
- Design Manual: Barrier Free Access 2008 (Building Department);
- DEVB TC W No. 6/2015 - Maintenance of Vegetation and Hard Landscape Features;
- LAO Practice Note No. 6/2023 – Processing of Tree Preservation and Removal Proposals for Building Development in Private Projects – Compliance with Tree Preservation Clause under Lease;
- PlanD's PNPP No. 1/2019 – Processing and Compliance Checking of Landscape Submissions related to Planning Applications; and
- Guidance Notes for Application for Permission under Section 16 of the Town Planning Ordinance (Cap. 131).

4.1 LANDSCAPE DESIGN CONCEPT

4.1.1 The landscape concept mentioned below describe considerations, which has been considered as being general to the whole landscape design.

Enhancement of Streetscape

4.1.2 In view of the existing condition of Wang Yip Street East, the footprint of the existing building directly abuts the street, leaving only a narrow pedestrian walkway. To improve the existing streetscape, a substantial building setback of **1.5 m** from Wang Yip Street East and **3.0 m** from the southern boundary is proposed for the roadside planters with ornamental trees and shrubs. This will help enhance visual amenity and provide shade for pedestrians.

4.1.3 Similarly, the residential towers have been set back from Po Yip Street to allow for approx. **3.5 m-wide** planting bed and pavement for the enjoyment of occupants and visitors. Rows of heavy standard trees are proposed to soften the hard architectural edges at pedestrian level and to provide a smooth visual transition between the proposed development and the adjoining roadside environment. Please refer to Drawing No. **Landscape Master Plan and Sections** in **Appendix A**.

Integration of the development with the Surrounding Context

4.1.4 The landscape design aims to create soft-planted edges to the proposed development and to provide a smooth transition between the development and the adjoining roadside environment. Together with peripheral planting along the eastern, southern, and western site boundaries, edge planters with ornamental trees, shrubs and creeping plants are proposed within the landscaped areas at the 1/F and 2/F levels of the development. These landscape features will help achieve visual integration between the proposed development and the adjoining neighbours. Please refer to **Landscape Master Plan and Sections** in **Appendix A**.

Landscaped Garden at 1/F and 2/F

4.1.5 Landscaped open spaces are proposed at the 1/F and 2/F levels to cater for the recreational needs of both users and visitors. A variety of landscaped areas, including entrance plaza, sitting courtyards, children's play areas, fitness facilities, a swimming pool, jacuzzi, and BBQ terrace, are strategically located within available spaces to create inviting settings for social interaction and community activities. These gardens will be equipped with appropriate outdoor furniture and recreational facilities and will incorporate a diverse palette of planting to form attractive and functional green spaces. The use of refined paving materials and carefully coordinated plant combinations is intended to enhance the visual appeal of the development by introducing richness in colour, texture, and spatial layering, thereby providing a vibrant and aesthetically pleasing environment for all users.

Planting Design

4.1.6 For the entire landscape area, where practicable, ornamental trees, flowering shrubs, creeping plants and foliage plants are proposed. The use of tree planting in heavy standard size would be encouraged to provide a more instant effect while the proposed shrub and groundcover planting will in addition to contribute to the landscape concept for the development and visually soften the appearance of the development in short and medium distance views. Drawings showing the soft landscape treatments such as trees, shrub, groundcovers and lawn are in **Appendix B.**

4.2 ACTIVE AND PASSIVE RECREATION FACILITIES:

4.2.1 Recreational facilities like entrance plaza, sitting courtyards, children's play areas, fitness facilities, a swimming pool, jacuzzi, and BBQ terrace are provided at 1/F and 2/F levels, in order to cater for the recreational need of the occupants and visitors.

4.2.2 It is expected that there will be about **2,777** occupants at the Proposed Development while the proposed area of the communal open spaces under application shall not be less than **2,777** m^2. Hence, the provision of the communal open space can meet the requirement set out in HKPSG, i.e. 1 m^2 per person. Please refer to the Communal Open Space Calculation in **Appendix C**.

4.3 SOIL DEPTH FOR PLANTING

4.3.1 The requirement of soil depth is directly related to the planting design and its associated loading requirement upon structure. In general, the soil depth provided, with all drainage layers, water-proofing and protective screening exclusive is listed below:

Table 1.0 Planting Medium (Soil Depth)

Planting Type	**Soil Depth (Minimum)**
Tree/ Palm tree	1200mm
Shrub/ Climber	600mm
Groundcover/ Turf	300mm

4.4 SITE COVERAGE OF GREENERY

4.4.1 The current landscape proposal aims to provide more greenery within the site boundary. The calculation of greening ratio in accordance with PNAP APP No. 152 is shown as follows and the common greenery calculation shall refer to **Common Greenery Provision in Appendix C**:

Table 2.0 Common Greenery Calculation

Required Common Greenery	
Site Area:	7,271.0m^2
Minimum Total Common Greenery:	7,271.0m^2 x 20% = 1,454.20m^2
Minimum Common Greenery at Primary Zone:	7,271.0m^2 x 10% = 727.10m^2
Provided Common Greenery	
Common Greenery Area at Primary Zone (G/F, 1/F and 2/F):	1,548.10m^2 (>727.10m^2)
Common Greenery Area at Other Areas:	0m^2
Total Common Greenery Area:	1,548.10m^2 (>1,454.20 m^2)
Total Green Coverage in Common Area	1,548.10/7,271.0 x 100% = **21.29%**

4.4.2 The proposed greenery at common area is approx. **1,548.10m^2** which exceeds the required 20% greenery requirement, i.e. **1,454.20m^2**. Besides, all the proposed greenery are easily accessible and visible by the users and visitors and is counted as "common greenery area at Primary Zone", i.e. **1,548.10m^2** which also exceeds the required **727.10m^2**.

4.5 IRRIGATION

4.5.1 The proposed irrigation system will be by tap water pipe for manual operation. Lockable water points will be provided at 40m centres covering the entire site. The proposed source of water supply is subject to final approval from the Water Services Department.

4.6 FUTURE MAINTENANCE

Hard Landscape Elements

4.6.1 Maintenance for hard landscape elements within the proposed landscaped areas shall be carried out by management office of the development with maintenance intention as follows:

I – Routine Maintenance (Daily – Weekly)
a. Rubbish and litter removal
b. Sweeping and cleaning
c. Damage inspection and repair for site furniture and light bulb replacement

II – Annual/ Long Term Maintenance
a. Repainting
b. Resurfacing of worn pavements
c. Replacing worn parts site furniture, lighting fixture and other facilities
d. Replacement of worn landscape furniture.

Soft Landscape Element

4.6.2 For the whole landscaped areas, the softworks contractor will be responsible for maintenance of the planting during the establishment period allowed for in the construction contract, usually for the first year after the beginning of the schemes operational phase. This will ensure that the soft landscape measures are in a healthy condition prior to the finished scheme being handed back to the lot owner.

4.6.3 Ultimately the management office will employ maintenance staff to take care of all landscape areas within the Site.

4.6.4 The maintenance schedule for soft landscape works has been included in **Appendix D**. It is important to mention that tree risk assessment will be conducted at appropriate time to facilitate proper tree management and maintenance.

5.0 PLANTING PROPOSALS

5.1 In order to provide quality landscape for the proposed development, soft landscape works will be the major landscape element of the landscaping proposal and the following factors are taken into consideration in planting species selection:

- Low maintenance requirement;
- Evergreen with small amount of leave fall to prevent litter accumulation;
- Tolerance to wind and exposed condition;
- To screen the proposed buildings and reduce the visual impact to the nearby users.

5.2 The proposed planting species list is shown as follows and details shall refer to the Planting Plans in **Appendix B.**

Table 3.0 Planting Schedule

Botanical Name	Chinese Name	Size (mm)	Spacing (mm)	Native/ Exotic
TREE		**Height x Spread x DBH (mm)**		
Bischofia javanica	秋楓	3500x1500x75	4000	Native
Cinnamomum burmanii	陰香	4000x2000x75	4000	Native
Garcinia Subelliptica	菲島福木	4000x1500x75	4000	Exotic
Osmanthus fragrans	桂花	4000x1500x75	4000	Exotic
Sterculia lanceolata	假蘋婆	4000x1500x75	4000	Native
Sapium dicolor	山烏桕	3500x1500x75	4000	Native
Terminalia boivinii	細葉欖仁	5500x2000x75	4000	Exotic
SHRUBS		**Height x Spread (mm)**	**Spacing (mm)**	**Native/ Exotic**
Codiaeum variegatum 'Glorisa'	紅葉洒金榕	450x400	300	Exotic
Cordyline terminalis 'Rubra'	紅葉鐵樹	500x450	150	Exotic
Duranta repens 'Golden'	黃金金露花	300x250	250	Exotic
Ixora chinensis	龍船花	500x450	300	Native
Philodendron selloum	春羽	500x500	500	Exotic
Rhapis humilus	小葉棕竹	500x350	300	Exotic
Rhaphiolepis indica	石斑木	450x300	250	Native
Rhododendron simsii	紅杜鵑	300x250	200	Native
Schefflera arboricola	鵝掌藤	600x550	500	Exotic
GROUNDCOVER		**Height x Spread (mm)**	**Spacing (mm)**	**Native/ Exotic**
Dieffenbachia picta	白班萬年青	400x350	300	Exotic
Lantana montevidensis	小葉馬櫻丹	400x350	300	Native
Ligustrum sinense	山指甲	350x300	250	Native
Nephrolepis auriculata	腎蕨	350x300	250	Native

CREEPING PLANT		Height x Spread (mm)	Spacing (mm)	Native/ Exotic
Bauhinia glauca	羊蹄甲藤	800x400	300	Native
Parthenocissus himalayana	爬牆虎	800x400	300	Exotic
LAWN				**Native/ Exotic**
Zoysia japonica	朝鮮草	-		Exotic

5.3 In this project, total **74** nos. of heavy standard trees and **1,548.10m^2** for shrubs, groundcover and lawn will be planted within the Proposed Development. They will be maintained by the management office of the development.

Appendix A

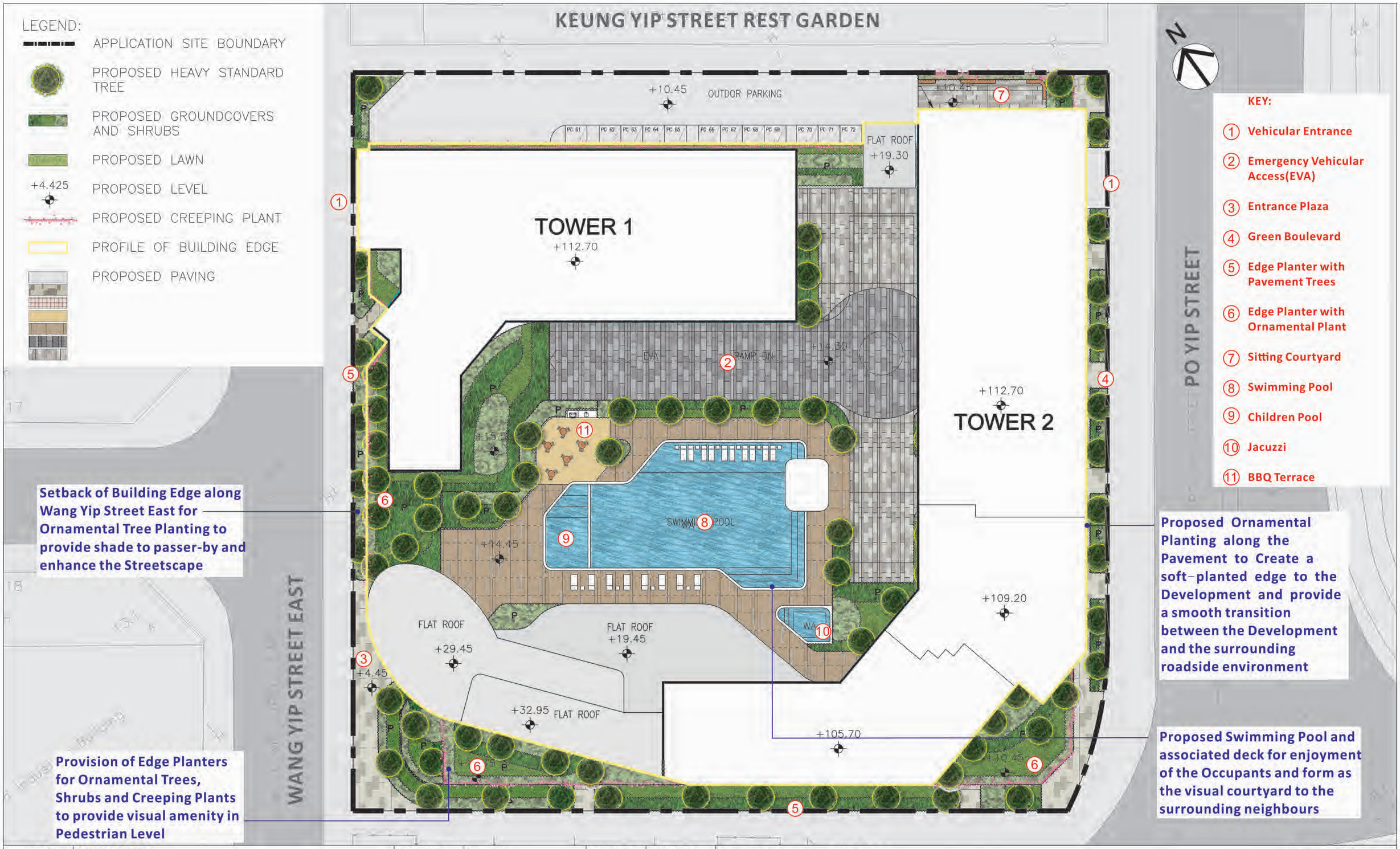
Landscape Master Plan

And

Relevant Sections

LEGEND:

- APPLICATION SITE BOUNDARY
- PROPOSED HEAVY STANDARD TREE
- PROPOSED GROUNDCOVERS AND SHRUBS
- PROPOSED LAWN
- +4.425 PROPOSED LEVEL
- PROPOSED CREEPING PLANT
- PROFILE OF BUILDING EDGE
- PROPOSED PAVING



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LANDSCAPE MASTER PLAN (OVERALL)

SCALE 比例: 1:400
DATE 日期: MAR 2026
REVISION 校訂: –
DRAWING NUMBER 圖號: LMP01

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CAD FILENAME : C2616–LMP01

LEGEND:

- APPLICATION SITE BOUNDARY
- PROPOSED HEAVY STANDARD TREE
- PROPOSED GROUNDCOVERS AND SHRUBS
- PROPOSED LAWN
- +4.425 PROPOSED LEVEL
- PROPOSED PAVING

KEY:

1. Vehicular Entrance
2. Ramp to 1/F Car Park
3. Emergency Vehicular Access
4. Entrance Plaza
5. Green Boulevard
6. Edge Planter with Pavement Trees

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PROJECT 工程項目
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DRAWING TITLE 圖紙名稱
LANDSCAPE MASTER PLAN (G/F)

SCALE 比例: 1:400
DATE 日期: MAR 2026
REVISION 校訂: –
DRAWING NUMBER 圖號: LMP02
DESIGNED 設計: TEL
DRAWN 繪圖: CAD
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LEGEND:

- APPLICATION SITE BOUNDARY
- PROPOSED HEAVY STANDARD TREE
- PROPOSED GROUNDCOVERS AND SHRUBS
- PROPOSED LAWN
- +4.425 PROPOSED LEVEL
- PROPOSED CREEPING PLANT
- PROPOSED PAVING

Sitting Courtyard to promote social interaction of the Occupants

Provision of Edge Planters for Ornamental Trees, Shrubs and Creeping Plants to provide visual amenity in Pedestrian Level

KEY:

1. Sitting Courtyard
2. Edge Planter with Ornamental Plant

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DRAWING TITLE 圖紙名稱
LANDSCAPE MASTER PLAN (1/F)

SCALE 比例: 1:400
DATE 日期: MAR 2026
REVISION 校訂: –
DRAWING NUMBER 圖號: LMP03
DESIGNED 設計: TEL
DRAWN 繪圖: CAD
CHECKED 審核: TEL
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CAD FILENAME : C2616–LMP03

LEGEND:

- APPLICATION SITE BOUNDARY
- PROPOSED HEAVY STANDARD TREE
- PROPOSED GROUNDCOVERS AND SHRUBS
- PROPOSED LAWN
- +4.425 PROPOSED LEVEL
- PROPOSED CREEPING PLANT
- PROPOSED PAVING

Proposed Fitness Equipment and Children Play Area to cater for the Active and Passive Recreational Need of the Occupants and Visitors

Provision of Edge Planters for Ornamental Trees, Shrubs and Creeping Plants to soften the Hard Lines of the Buildings

Proposed Swimming Pool and associated deck for enjoyment of the Occupants and form as the visual courtyard to the surrounding neighbours

KEY:

1. Children Play Area
2. Fitness Equipment
3. Sitting Courtyard
4. Swimming Pool
5. Children Pool
6. Jacuzzi
7. BBQ Terrace
8. Edge Planter with Ornamental Shrubs and Creeping Plants
9. Emergence Vehicular Access (EVA)

REVISION 校訂	DESCRIPTION 內容摘要	DRAWN 繪圖	DATE 日期	CHECKED 審核	APPROVED 審批

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PROJECT 工程項目
21-25 WANG YIP STREET EAST, YUEN LONG, NEW TERRITORIES, HONG KONG

DRAWING TITLE 圖紙名稱
LANDSCAPE MASTER PLAN (2/F)

SCALE 比例: 1:400
DATE 日期: MAR 2026
REVISION 校訂: —
DRAWING NUMBER 圖號: LMP04

DESIGNED 設計: TEL
DRAWN 繪圖: CAD
CHECKED 審核: TEL
APPROVED 審批: TEL

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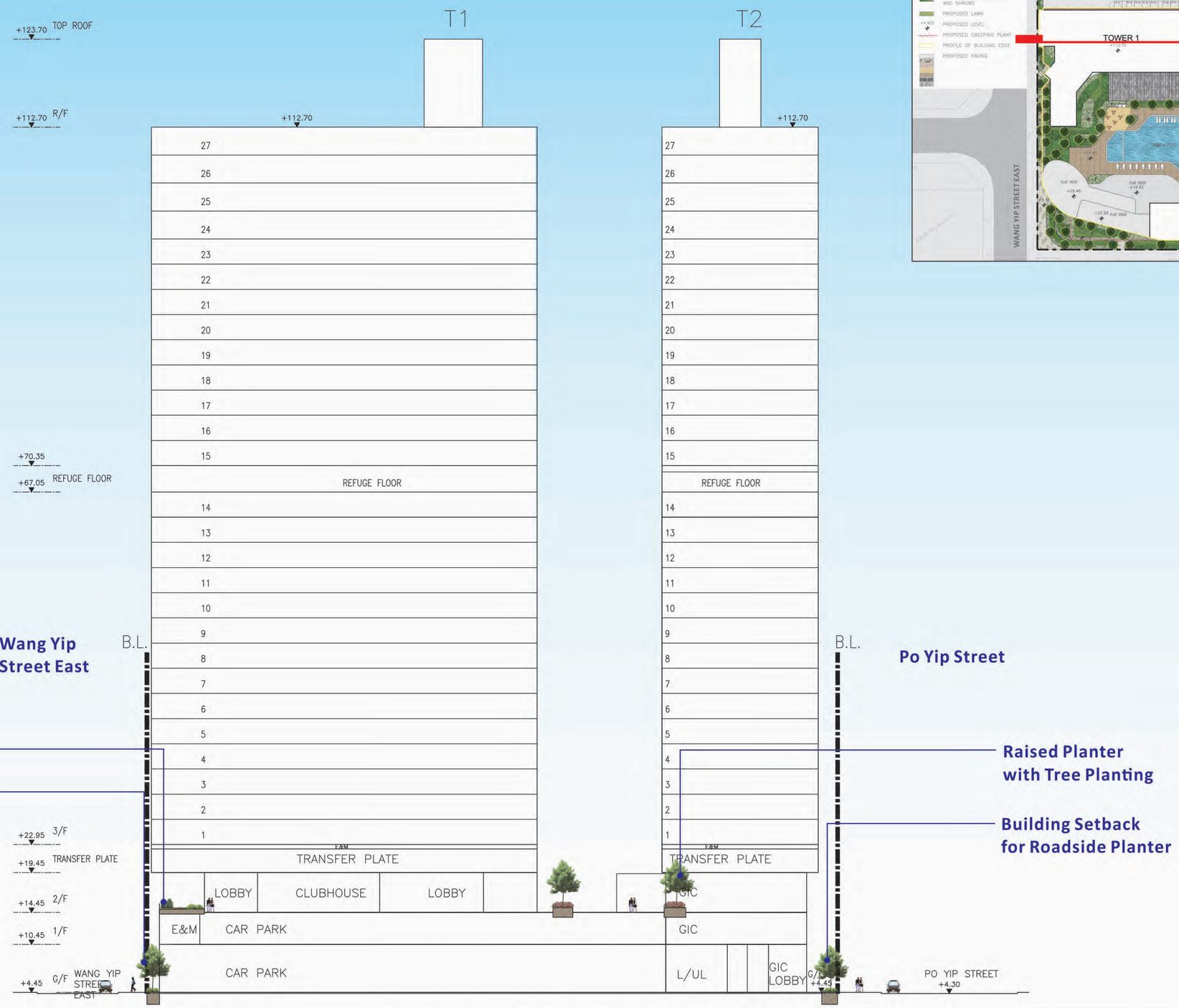

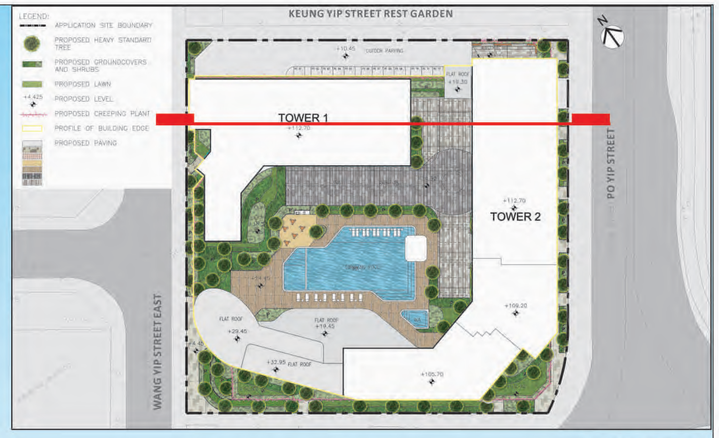

KEY PLAN

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PROJECT 工程項目
21–25 WANG YIP STREET EAST, YUEN LONG, NEW TERRITORIES, HONG KONG

DRAWING TITLE 圖紙名稱
LANDSCAPE SECTION

SCALE 比例: 1:550
DATE 日期: MAR 2026
REVISION 校訂: –
DRAWING NUMBER 圖號: LD101

DESIGNED 設計: TEL
DRAWN 繪圖: CAD
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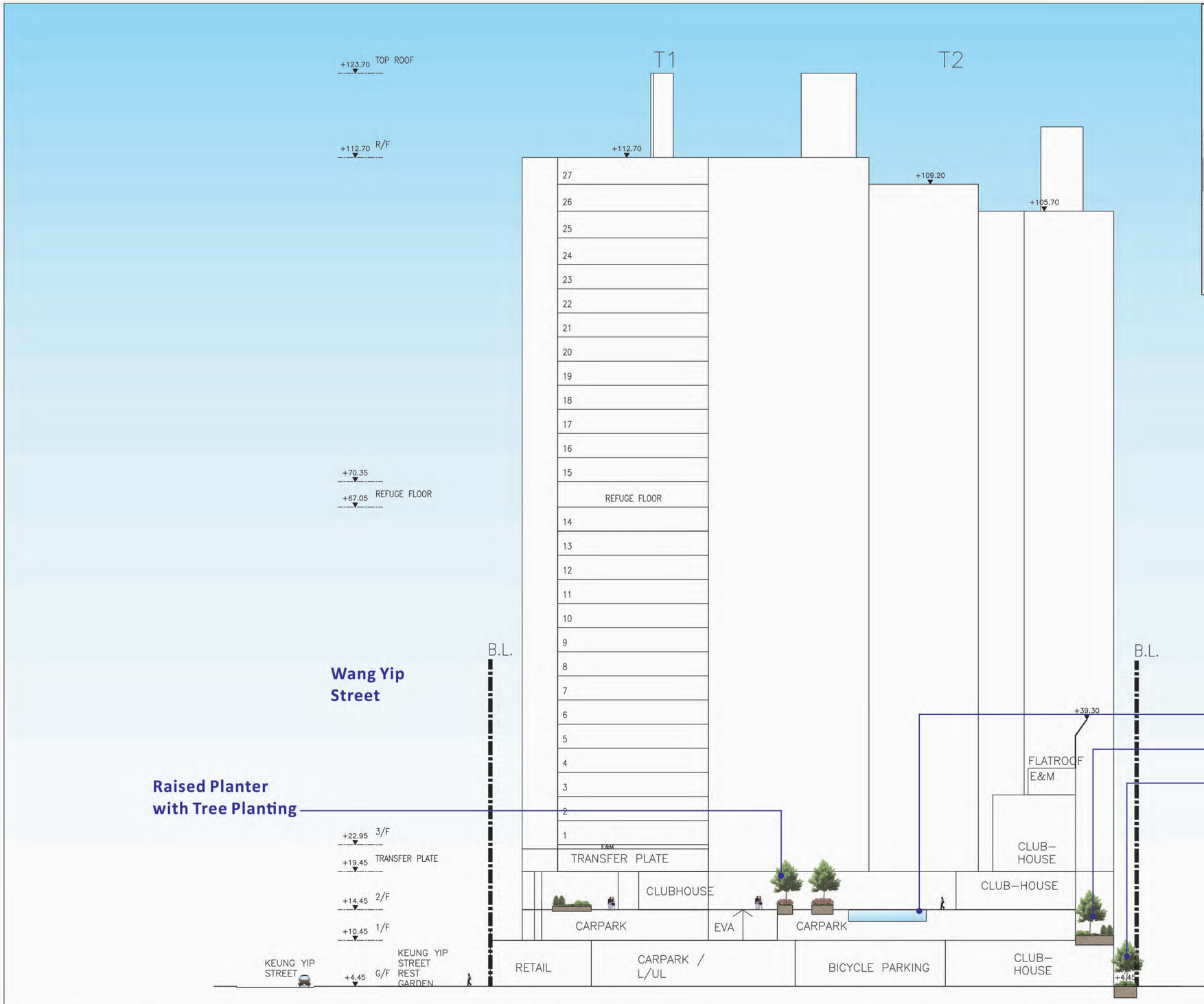

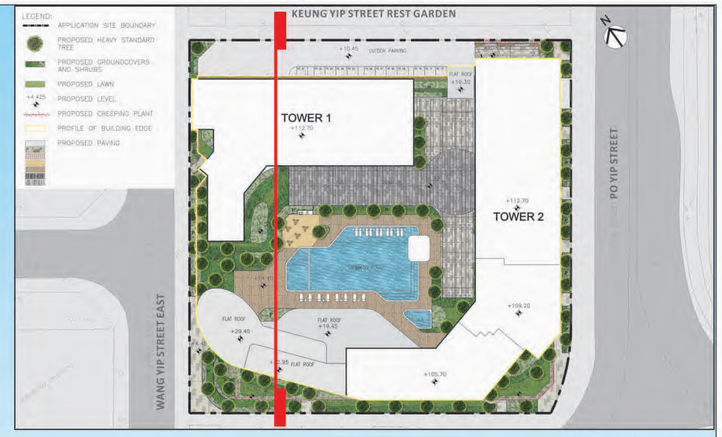

KEY PLAN

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PROJECT 工程項目
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DRAWING TITLE 圖紙名稱
LANDSCAPE SECTION

SCALE 比例: 1:550
DATE 日期: MAR 2026
REVISION 校訂: –
DRAWING NUMBER 圖號: LD102

DESIGNED 設計: TEL
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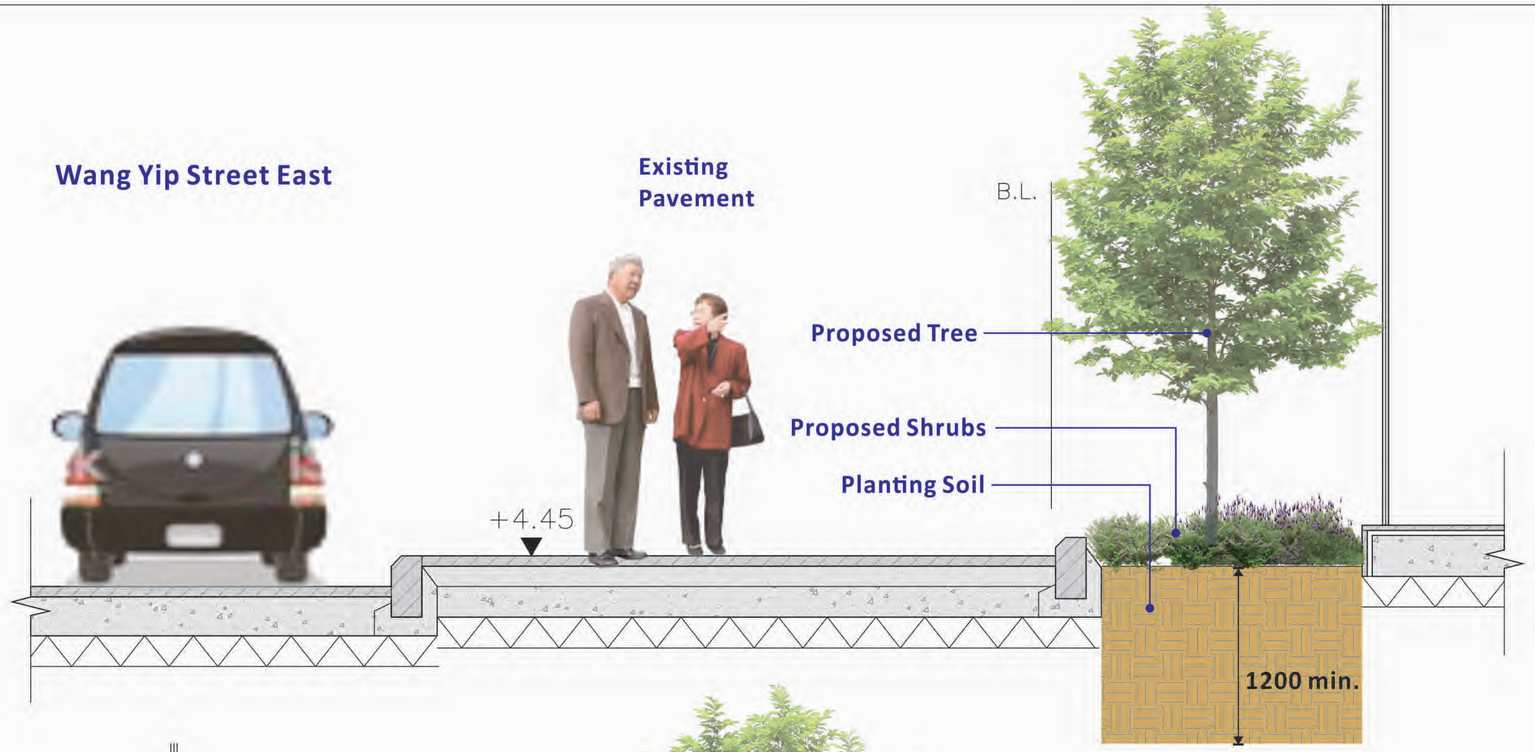

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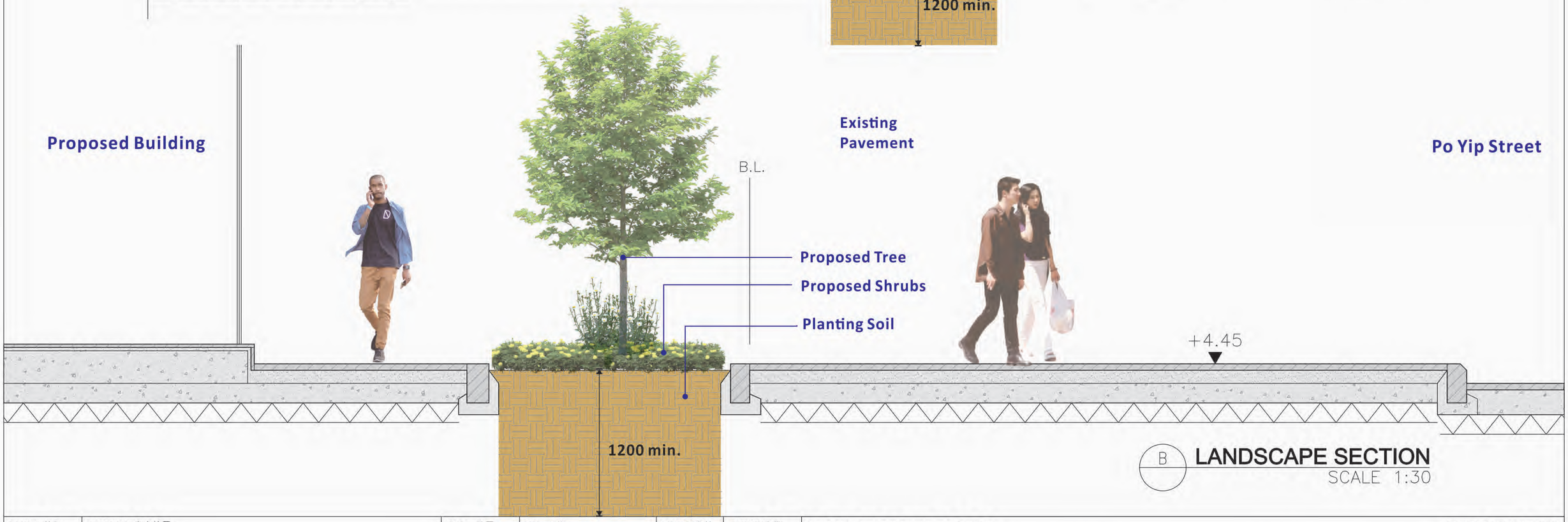
SCALE 1:30



B LANDSCAPE SECTION
SCALE 1:30

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PROJECT 工程項目
21–25 WANG YIP STREET EAST, YUEN LONG, NEW TERRITORIES, HONG KONG

DRAWING TITLE 圖紙名稱
LANDSCAPE SECTION

SCALE 比例: 1:30
DATE 日期: MAR 2026
REVISION 校訂: –
DRAWING NUMBER 圖號: LD103

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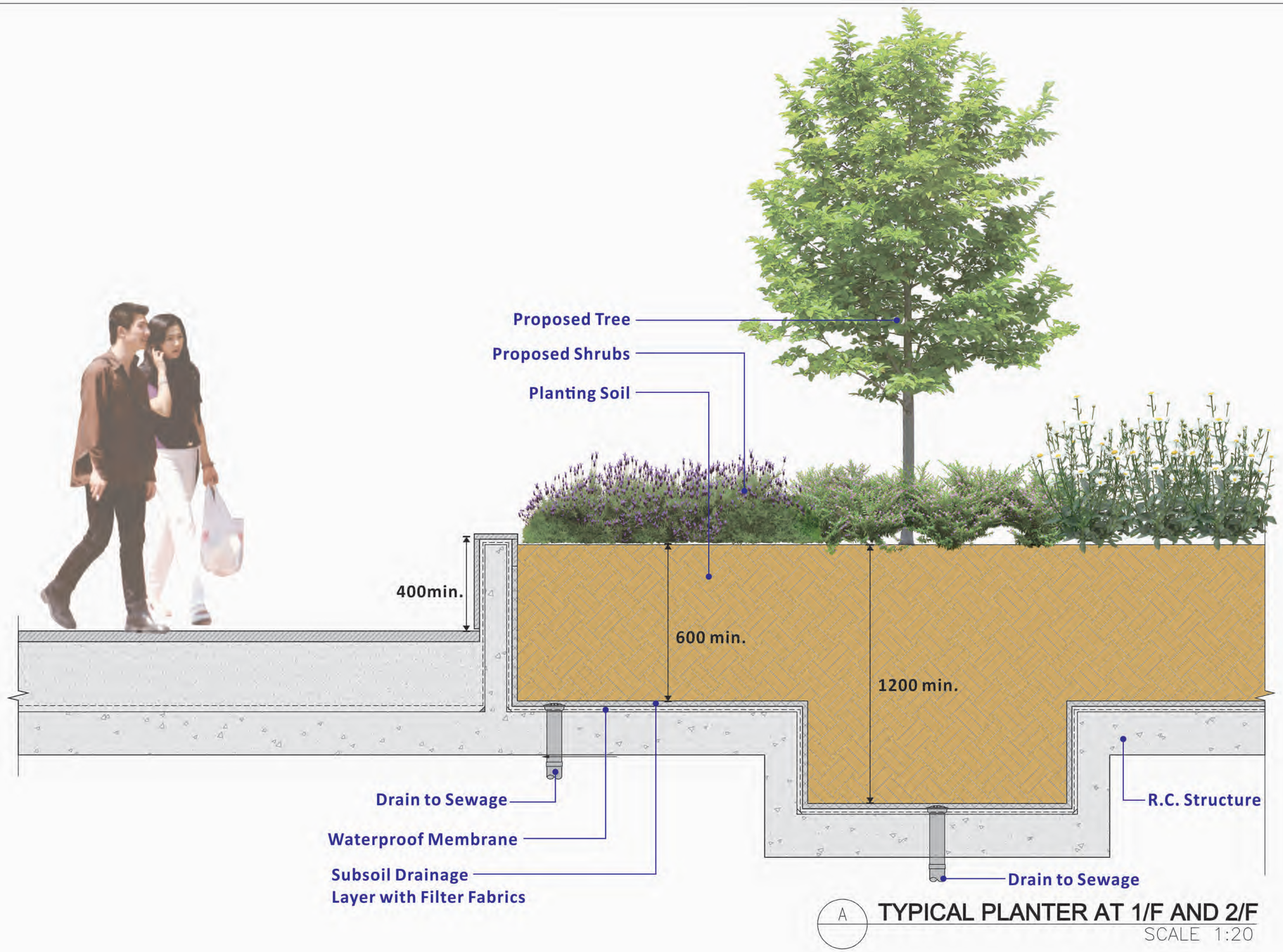

A TYPICAL PLANTER AT 1/F AND 2/F
SCALE 1:20

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PROJECT 工程項目
21–25 WANG YIP STREET EAST, YUEN LONG, NEW TERRITORIES, HONG KONG

SCALE 比例: 1:20
DESIGNED 設計: TEL
DATE 日期: MAR 2026
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DRAWING TITLE 圖紙名稱: LANDSCAPE SECTION
REVISION 校訂: –
CHECKED 審核: TEL
DRAWING NUMBER 圖號: LD104
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CAD FILENAME : C2616–LD104

Appendix B

Planting Plans

Quantity	Code	Chinese Name	Botanical Name	Native/Exotic	Height (mm)	Spread (mm)	DBH (mm)	Spacing (mm)	Remark
STANDARD TREES									
11	BJ	秋楓	*Bischofia javanica*	Native	3500	1500	75	4000	Abundance of Foliage, Well-Formed, Full Spread Formed
9	CB	陰香	*Cinnamomum burmanii*	Native	4000	2000	75	4000	Abundance of Foliage, Well-Formed, Full Spread Formed
15	GS	菲島福木	*Garcinia Subelliptica*	Exotic	4000	1500	75	4000	Abundance of Foliage, Well-Formed, Full Spread Formed
15	OF	桂花	*Osmanthus fragrans*	Exotic	4000	1500	75	4000	Abundance of Foliage, Well-Formed, Full Spread Formed
4	SL	假蘋婆	*Sterculia lanceolata*	Native	4000	1500	75	4000	Abundance of Foliage, Well-Formed, Full Spread Formed
14	SD	山烏桕	*Sapium dicolor*	Native	3500	1500	75	4000	Abundance of Foliage, Well-Formed, Full Spread Formed
6	TB	細葉欖仁	*Terminalia boivinii*	Exotic	5500	2000	75	4000	Abundance of Foliage, Well-Formed, Full Spread Formed
SHRUBS									
-	Cov	紅葉洒金榕	*Codiaeum variegatum 'Glorisa'*	Exotic	450	400	-	300	Abundance of Foliage, Well-Balanced Form
	Ctr	紅葉鐵樹	*Cordyline terminalis 'Rubra'*	Exotic	500	450	-	150	Abundance of Foliage, Well-Balanced Form
-	Drg	黃金金露花	*Duranta repens 'Golden'*	Exotic	300	250	-	250	Abundance of Foliage, Well-Balanced Form
-	Ich	龍船花	*Ixora chinensis*	Native	500	450	-	300	Abundance of Foliage, Well-Balanced Form
-	Pse	春羽	*Philodendron selloum*	Exotic	500	500	-	500	Abundance of Foliage, Well-Balanced Form
-	Rh	小葉棕竹	*Rhapis humilus*	Exotic	500	350	-	300	at least 5 shoots per plant
-	Rhi	石斑木	*Rhaphiolepis indica*	Native	450	300	-	250	Abundance of Foliage, Well-Balanced Form
-	Rhs	紅杜鵑	*Rhododendron simsii*	Native	300	250	-	200	Abundance of Foliage, Well-Balanced Form
-	Sar	鵝掌藤	*Schefflera arboricola*	Exotic	600	550	-	500	Abundance of Foliage, Well-Balanced Form
GROUNDCOVERS									
-	Dip	白斑萬年青	*Dieffenbachia picta*	Exotic	400	350	-	300	at least 5 leaves per plant
-	Lam	小葉馬櫻丹	*Lantana montevidensis*	Native	400	350	-	300	Abundance of Foliage, Well-Balanced Form
-	Lis	山指甲	*Ligustrum sinense*	Native	350	300	-	250	Abundance of Foliage, Well-Balanced Form
-	Nau	腎蕨	*Nephrolepis auriculata*	Native	350	300	-	250	at least 5 leaves per plant
CREEPING PLANT									
-	Bgl	羊蹄甲藤	*Bauhinia glauca*	Native	800	400	-	300	at least 5 shoots per plant
-	Phi	爬牆虎	*Parthenocissus himalayana*	Exotic	800	400	-	300	at least 5 shoots per plant
GRASS									
-	Zja	朝鮮草	*Zoysia japonica*	Exotic	-	-	-		Bermuda tif dwarf + overseeding

REVISION 校訂	DESCRIPTION 內容摘要	DRAWN 繪圖	DATE 日期	CHECKED 審核	APPROVED 審批

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PROJECT 工程項目
S.16 PLANNING APPLICATION FOR THE PROPOSED RESIDENTIAL DEVELOPMENT AT 21-35 WANG YIP STREET EAST IN YUEN LONG

DRAWING TITLE 圖紙名稱
PLANTING SCHEDULE

SCALE 比例: N.T.S.
DATE 日期: MAR 2026
REVISION 校訂: —
DRAWING NUMBER 圖號: PS01

DESIGNED 設計: TEL
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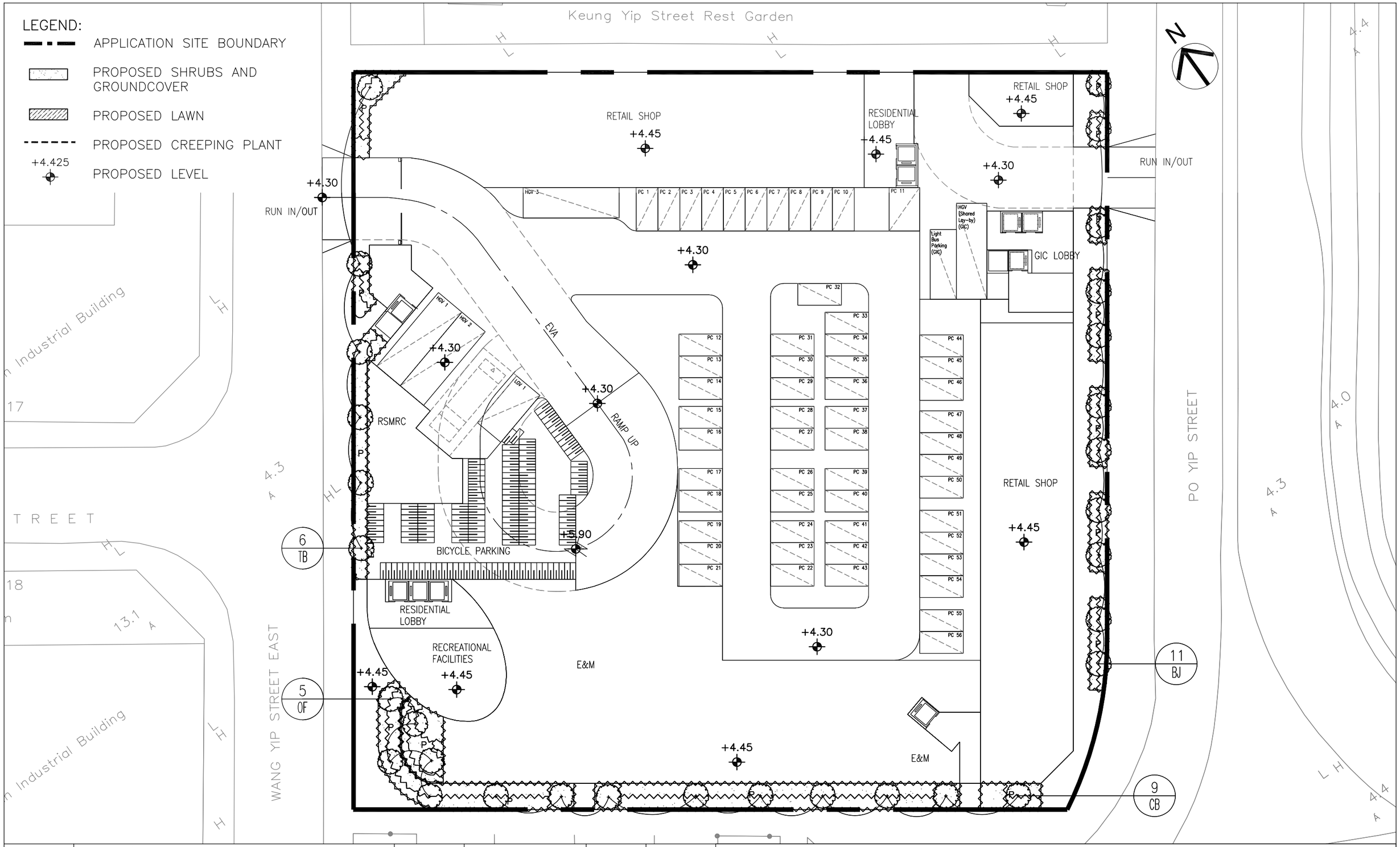

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PROJECT 工程項目
S.16 PLANNING APPLICATION FOR THE PROPOSED RESIDENTIAL DEVELOPMENT AT 21–35 WANG YIP STREET EAST IN YUEN LONG

DRAWING TITLE 圖紙名稱
PLANTING PLAN (G/F)

SCALE 比例: 1:400
DATE 日期: MAR 2026
REVISION 校訂: –
DRAWING NUMBER 圖號: PT01

DESIGNED 設計: TEL
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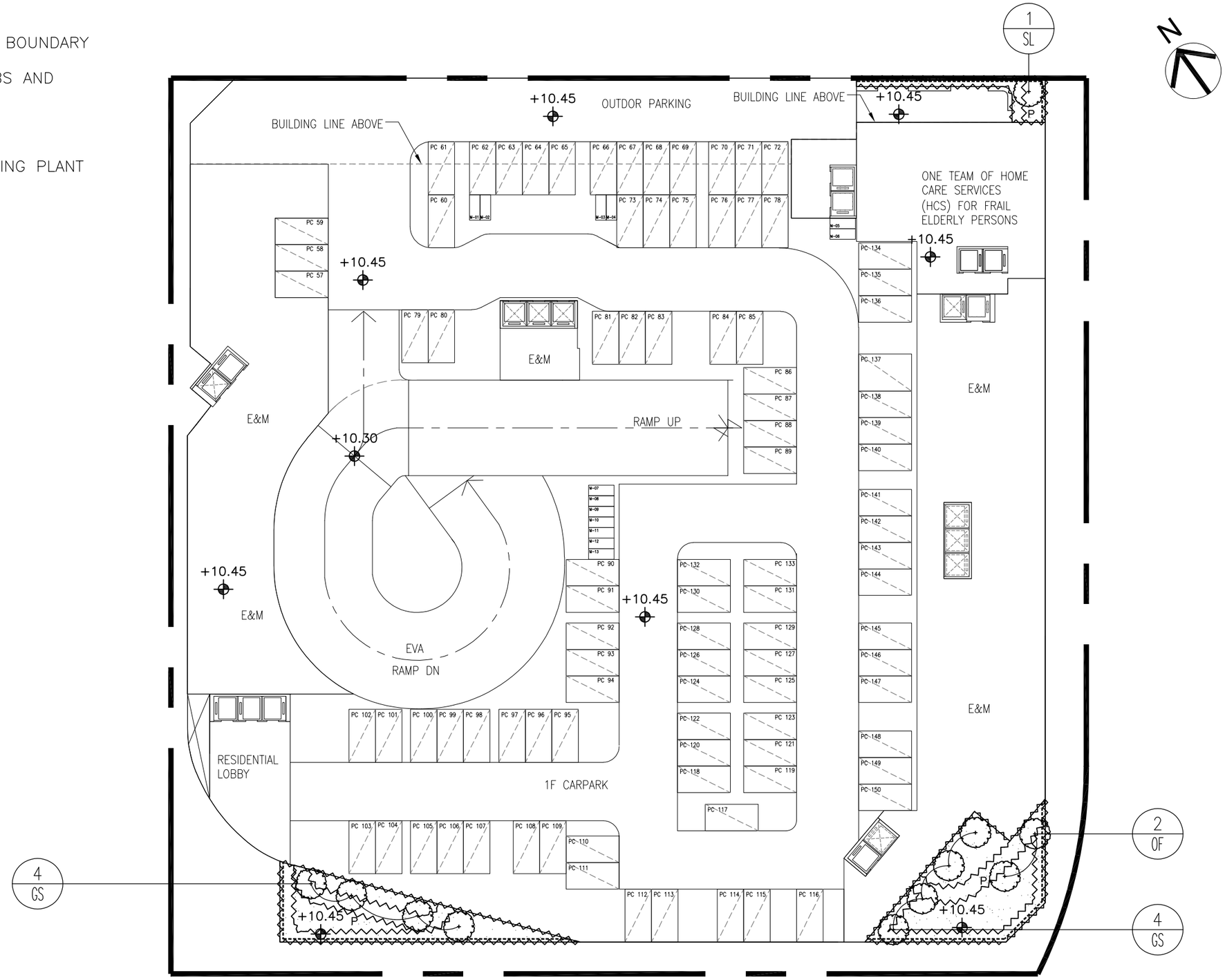
CAD FILENAME : C2616–PT01

LEGEND:

- APPLICATION SITE BOUNDARY
- PROPOSED SHRUBS AND GROUNDCOVER
- PROPOSED LAWN
- PROPOSED CREEPING PLANT
- +4.425 PROPOSED LEVEL



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PROJECT 工程項目
S.16 PLANNING APPLICATION FOR THE PROPOSED RESIDENTIAL DEVELOPMENT AT 21-35 WANG YIP STREET EAST IN YUEN LONG

DRAWING TITLE 圖紙名稱
PLANTING PLAN (1/F)

SCALE 比例: 1:400
DATE 日期: MAR 2026
REVISION 校訂: –
DRAWING NUMBER 圖號: PT02

DESIGNED 設計: TEL
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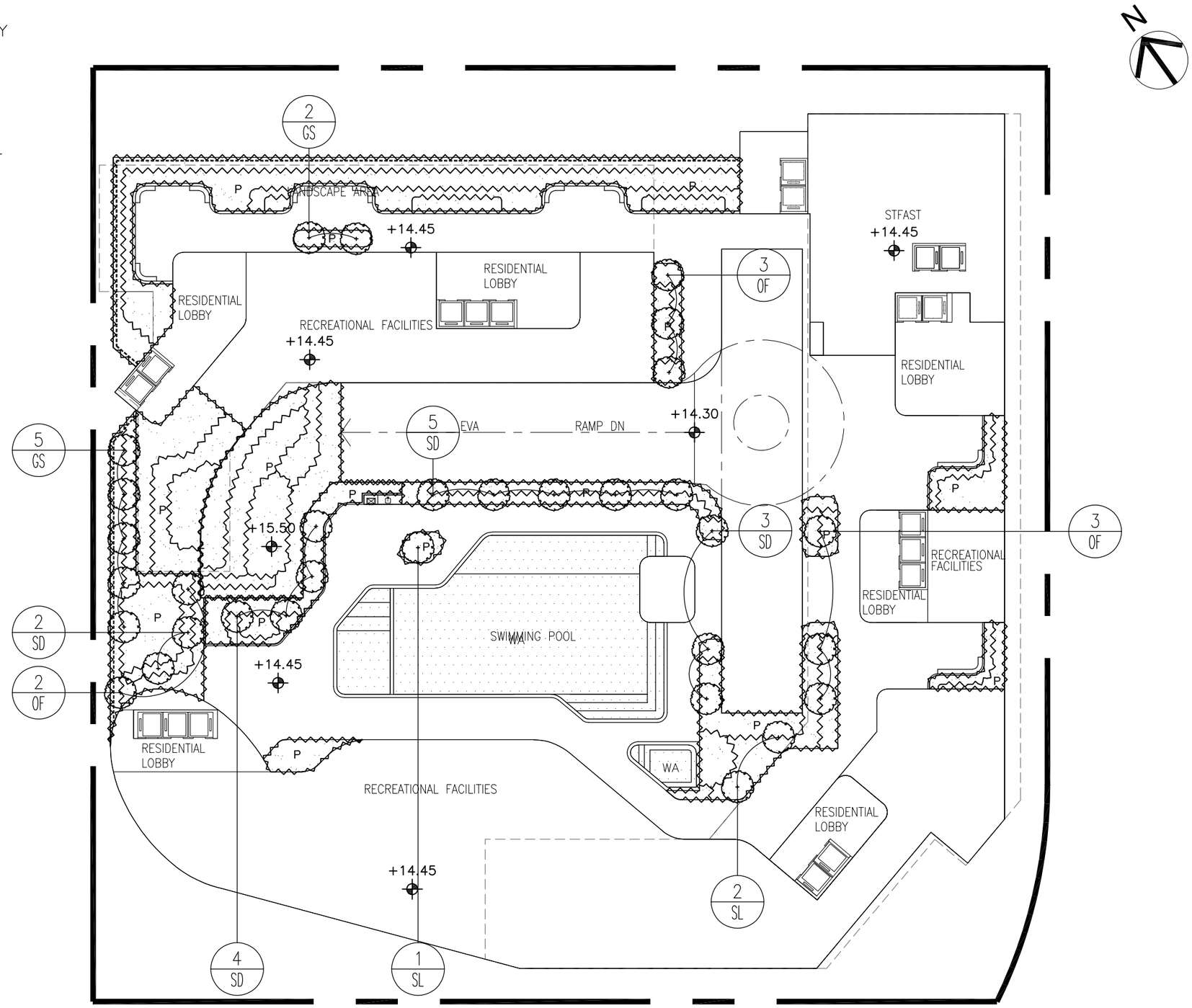
CAD FILENAME : C2616–PT02

LEGEND:

- APPLICATION SITE BOUNDARY
- PROPOSED SHRUBS AND GROUNDCOVER
- PROPOSED LAWN
- PROPOSED CREEPING PLANT
- +4.425 PROPOSED LEVEL



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PROJECT 工程項目
S.16 PLANNING APPLICATION FOR THE PROPOSED RESIDENTIAL DEVELOPMENT AT 21–35 WANG YIP STREET EAST IN YUEN LONG

DRAWING TITLE 圖紙名稱
PLANTING PLAN (2/F)

SCALE 比例: 1:400
DATE 日期: MAR 2026
REVISION 校訂: –
DRAWING NUMBER 圖號: PT03

DESIGNED 設計: TEL
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CAD FILENAME : C2616–PT03

Appendix C

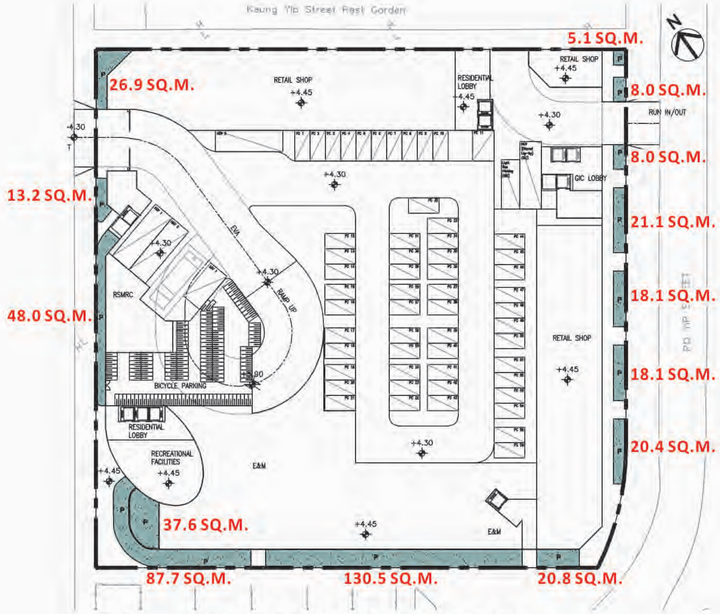
Common Greenery

and

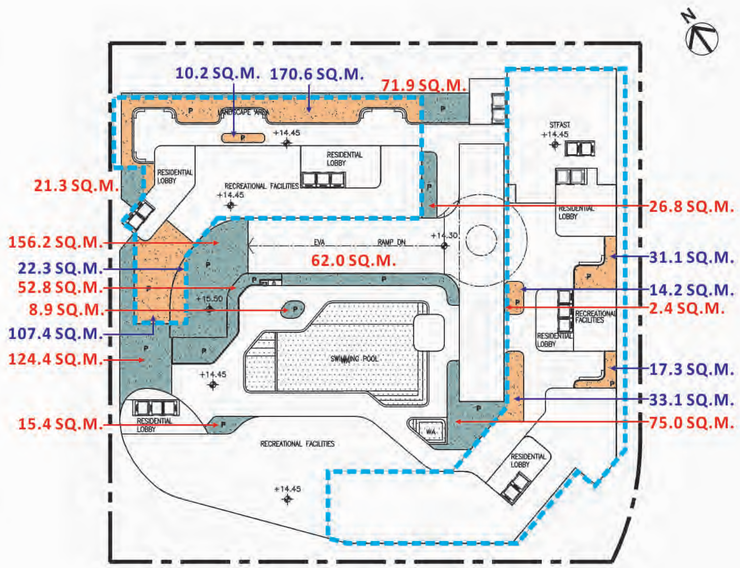
Communal Open Space Provision

LEGEND:

- APPLICATION SITE BOUNDARY
- UNCOVERED COMMON GREENERY AT PRIMARY ZONE
- COVERED COMMON GREENERY AT PRIMARY ZONE
- +4.425 PROPOSED LEVEL



A GREENERY AT G/F
SCALE 1:1000



C GREENERY AT 2/F
SCALE 1:1000

B GREENERY AT 1/F
SCALE 1:1000

Site Coverage of Greenery (in accordance with PNAP APP-152)		
Required Greenery	**Area**	**Unit**
Site Area:	7,271.00	m^2
Required Area at Primary Zone:	727.10	m^2
Required Total Greenery:	1,454.20	m^2
Allowable Greenery Features:	436.26	m^2
Provided Greenery at Primary Zone	**Area**	**Unit**
Uncovered Planitng Area (G/F)	463.50	m^2
Uncovered Planitng Area (1/F)	264.40	m^2
Uncovered Planitng Area (2/F)	617.10	m^2
Covered Planitng Area (2/F) (with 0.5 reduction factor)	203.10	m^2
	(<436.28)	
Greenery at Primary Zone	**1,548.10**	m^2
	(>727.14)	m^2
Greenery Ratio at Primary Zone	**21.29%**	
Provided Greenery at Other Areas	**Area**	**Unit**
Greenery at Other Areas	**0.00**	m^2
Greenery Ratio at Other Areas	**0.00%**	
Total Greenery	**1,548.10**	m^2
	(>1,454.28)	m^2
Greenery Ratio	**21.29%**	

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PROJECT 工程項目
21-25 WANG YIP STREET EAST, YUEN LONG, NEW TERRITORIES, HONG KONG

SCALE 比例 1:1000
DATE 日期 MAR 2026
DRAWING TITLE 圖紙名稱 GREENERY PROVISION
REVISION 校訂 –
DRAWING NUMBER 圖號 GC01

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DRAWN 繪圖 CAD
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LanDes

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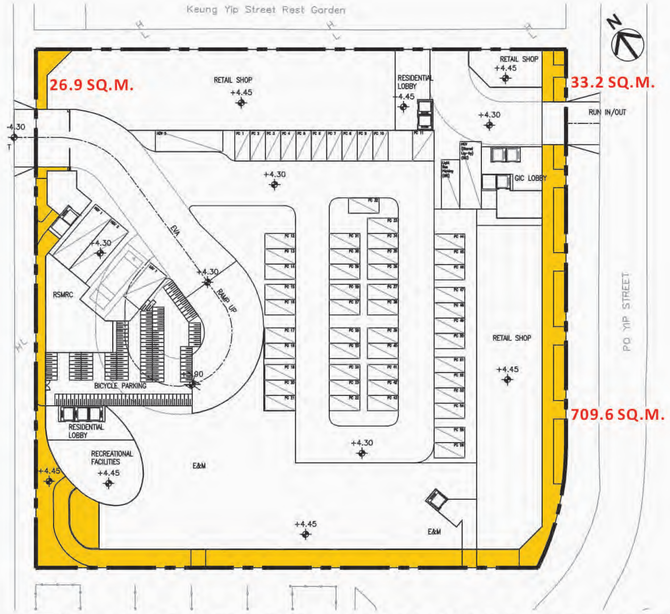
CAD FILENAME : C2616–GC01

LEGEND:

APPLICATION SITE BOUNDARY

COMMUNAL OPEN SPACE

+4.425 PROPOSED LEVEL



A COMMUNAL OPEN SPACE AT G/F

SCALE 1:1000

C COMMUNAL OPEN SPACE AT 2/F

SCALE 1:1000

B COMMUNAL OPEN SPACE AT 1/F

SCALE 1:1000

Target Population: 2,777 persons

Required Communal Open Space: (1 SQ.M. per person in accordance with HKPSG) **2,777 SQ.M.**

Provided Communal Open Space: **Not Less than 2,777 SQ.M.**

REVISION 校訂	DESCRIPTION 內容摘要	DRAWN 繪圖	DATE 日期	CHECKED 審核	APPROVED 審批

DO NOT SCALE FROM THIS DRAWING 勿按圖量比例

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PROJECT 工程項目
S.16 PLANNING APPLICATION FOR THE PROPOSED RESIDENTIAL DEVELOPMENT AT 21-35 WANG YIP STREET EAST IN YUEN LONG

DRAWING TITLE 圖紙名稱
COMMINAL OPEN SPACE PROVISION

SCALE 比例: 1:1000
DATE 日期: MAR 2026
REVISION 校訂: —
DRAWING NUMBER 圖號: OS01

DESIGNED 設計: TEL
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CAD FILENAME : C2616–OS01

Appendix D

Maintenance Schedule

Of

Soft Landscape Works

OPERATIONS	SPRING			SUMMER			AUTUMN			WINTER			REMARKS
	March	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	
DISEASE CONTROL INSPECTION	O	O	O	O	O	O	O	O	O	O	O	O	Treatment immediately after detection
FERTILIZATION Applications	O						O						
GENERAL PLANT INSPECTION	O	O	O	O	O	O	O	O	O	O	O	O	Treatment immediately after detection
IRRIGATION Watering operation	D	D	D	D	D	D	D	D	D	D	D	D	Early morning / late afternoon, as appropriate
PROTECTION Inspection of fence, tree grates, guards, stakes & ties	O			O			O			O			Inspection also after heavy storms and adverse weather. Treatments immediately after detection
FIRMING UP of plants & supports	O			O			O			O			Inspection also after heavy storms and adverse weather. Firm-up operations immediately after detection
WEEDING Weeding operation & litter collection	O	O	O	O	O	O	O	O	O	O	O	O	Additional litter inspection & collection after heavy use
THINNING INSPECTION	O						O						Thinning operations in appropriate pruning season
MULCH Topping up	O						O						And following run off caused by rain / wind storm
PRUNING	O						O						As appropriate
FORKING OVER	O						O						As appropriate
TREE RISK ASSESSMENT	O												As appropriate

KEY:
D = once daily W = once weekly 2W = twice weekly
Bi-W = Bi-weekly O = once R = repeat if necessary

Appendix III

Traffic Impact Assessment

Planning Application for Redevelopment of Lai Sun Yuen Long Centre, 21 -35 Wang Yip Street East, Yuen Long

Traffic Impact Assessment Report (Rev.A)

July 2026

CTA Consultants Limited

志達顧問有限公司

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1. INTRODUCTION

1.1 Background

1.1.1 The site location is shown in **Figure 1.1**.

1.1.2 On 12 January, 2024, the Town Planning Board (TPB) approved the section 16 application (Application No. A/YL/304) for a minor relaxation of building height and plot ratio restrictions for construction of a residential development at the subject site with 1,019 flats, 1,600m^2 retail shops and 422.1m^2 welfare facilities.

1.1.3 In connection to the above, the Applicant would like to submit a new section 16 planning application for above-ground carpark proposal. The overall GFA is unchanged (same as previously approved S16 planning application) but only update podium design and max. height on main roof.

1.1.4 We, CTA Consultants Limited (CTA), are therefore commissioned as the traffic consultant to prepare the Traffic Impact Assessment (TIA) and provide technical justifications in supporting the application from the traffic engineering point of view.

1.2 Study Objectives

1.2.1 Main objectives of this study are listed below:

- To assess the existing and proposed traffic arrangement & provision of internal transport facilities at the subject site;
- To assess the existing traffic condition in the vicinity of the proposed development;
- To estimate the traffic trips related to the proposed development;
- To carry out the forecasts about the traffic demand of the adjacent road network in the design year 2033;
- To appraise any possible traffic impact induced by the proposed development on the adjacent road network;
- To recommend traffic improvement measures to alleviate any foreseeable traffic problem to the surrounding road network, if any.

2. THE PROPOSED DEVELOPMENT

2.1 Site Location

2.1.1 The proposed development is located at Wang Yip Street East, the Keung Yip Street Rest Garden in the north, Po Yip Street in the east and the On Lok Road Substation to the South.

2.2 Proposed Development

2.2.1 Parameters of the proposed development are listed in **Table 2.1**.

Table 2.1 Parameters of the Proposed Development

<table>
<tr><th>Site Location</th><td>Wang Yip Street East</td></tr>
<tr><th>Proposed Use</th><td>Residential Development</td></tr>
<tr><th>Site Area (m^2)</th><td>7,271</td></tr>
<tr><th>Nos. of Flat</th><td>1,068 nos., including
<table>
<tr><th>Flat size</th><th>Size of Flat (GFA)</th><th>No. of Flat</th></tr>
<tr><td rowspan="3">Flat Size ≤ $40m^2$</td><td>32</td><td>266</td></tr>
<tr><td>37.6</td><td>185</td></tr>
<tr><td>39.9</td><td>294</td></tr>
<tr><td rowspan="4">$40m^2$ < Flat Size ≤ $70m^2$</td><td>45.4</td><td>216</td></tr>
<tr><td>48.1</td><td>54</td></tr>
<tr><td>60.1</td><td>26</td></tr>
<tr><td>68.8</td><td>27</td></tr>
</table></td></tr>
<tr><th>Retail Shops</th><td>1,600m^2</td></tr>
<tr><th>GFA for Welfare Facilities</th><td>Around 422m^2, including:
- 100-place Child Care Centre (CCC)
- A 100-place Residential Care Home for the Elderly (RCHE)
- A main base of Short-term Food Assistance Service Team (STFAST)
- Home Care Services (HCS) for Frail Elderly Persons</td></tr>
<tr><th>Domestic Plot Ratio</th><td>6.0</td></tr>
<tr><th>Nos. of Block</th><td>2</td></tr>
</table>

2.2.2 It is anticipated that the proposed development will be commissioned in year 2030. Therefore, the design year 2033 (i.e. 3 years after the planned commencement year of the proposed development) is adopted for this Traffic Impact Assessment.

2.3 Proposed Vehicular Access

2.3.1 The proposed vehicular access is located at Wang Yip Street East and the location of the proposed vehicular access as shown diagrammatically in **Figure 2.1 (Rev.A)**. The proposed vehicular access would be able to facilitate the turning of 12m long vehicle from Wang Yip Street East / to site entrance.

2.4 Provision of Internal Transport Facilities

2.4.1 The required internal transport facilities provision for the proposed development for individual lots are summarized in **Table 2.2** and **2.3** below.

Table 2.2 Internal Transport Provision under the HKPSG Requirements

Proposed Development		**HKPSG Requirement**							
		Private Car Parking Space						**Motorcycle Parking**	**Loading / Unloading Bay**
Residential (1,068 flats)									
Flat size	No. of Flats	GPS	R1	R2	R3	GPS x R1 x R2 x R3	5 visitor spaces per block	1 motorcycle parking per 100 – 150 flats	1 bay for each housing block
Flat Size ≤ 40m^2	745	4-7	0.50	0.75	0.90	36 – 63	10 (2 Blocks)	-	2
40m^2 < Flat Size ≤ 70m^2	323	4-7	1.20	0.75	0.90	38 - 66			
Total Required		**74 - 129**					**10**	**-**	**2**
Required Provision[A]		**84 - 139**						**8 - 11**	**2**
Retail (1,600 m^2)									
		1 car space per 150 – 300 m^2 GFA						5 – 10% of the total provision for private cars	1 per 800 – 1200 m^2 GFA
Required Provision [B]		**6 - 11**						**1 - 2**	**2**
Total Required Provision [A+B]		***90 - 150***						***9 - 13***	***4***
Proposed Provision		***150 nos. (Included 2 nos. of accessible parking)***						***13 nos.***	***4 nos. (Included 3 nos. of HGV and 1 no. of LGV)***

Note: (1) The above parking requirements under the latest HKPSG is the same as that adopted in the Approved TIA under approved Planning Application (Application No. A/YL/304).

Table 2.3 Transport Facilities Provision for Welfare Facilities and Bicycle Parking Space for Residential

Requirement	Proposed Provision
Welfare Facilities (Based on Technical Schedule for the Government Accommodation)	
1 space (11m (L) x 3.5m (W)) for shared use for loading / unloading of goods vehicles and picking-up / setting-down of passengers	1 no. (11m (L) x 3.5m (W))
1 space (8m (L) x 3m (W)) for parking of private light bus	1 no. (8m (L) x 3m (W))
Bicycle Parking Space for Residential (Based on Approved Planning Application (No. A/YL/304))	
1 bicycle parking space for every 7.5 flats with flat size smaller than $70m^2$	143 nos.

2.4.2 The carpark layout plans for loading/unloading and parking spaces at ground floor and first floor are shown in **Figure 2.1 (Rev.A)** to **Figure 2.2 (Rev.A)** and the EVA connects from first floor to second floor as shown in **Figure 2.3 (Rev.A)**.

3. THE EXISTING TRAFFIC CONDITION

3.1 Existing Road Network

3.1.1 Po Yip Street is a dual-carriageway which connects Long Yip Street to the southern side and Keung Yip Street at the middle of section.

3.1.2 Long Yip Street is an eastbound road which connecting Castle Peak Road – Yuen Long at its eastern end and to Wang Tat Road at its western end.

3.2 Critical Junctions

3.2.1 Nine junctions are identified to be critical for the Traffic Impact Assessment due to the proposed development. Relevant details are listed in **Table 3.1** and shown in **Figure 3.1 (Rev.A)**. Existing junction layouts are tabulated in **Figures 3.2** to **3.10** respectively.

Table 3.1 Identified Critical Junctions

Ref.	Junction	Type	Figure No.
A	Yuen Long On Lok Road/ Long Yip Street/ Po Yip Street / Yuen Long Tung Tai Street	Signalized	3.2
B	Po Yip Street / Keung Yip Street	Priority	3.3
C	Wang Yip Street East/ Keung Yip Street	Priority	3.4
D	Wang Yip Street East/ Hi Yip Street	Priority	3.5
E	Yuen Long On Lok Road/ Long Yip Street /Wang Lok Street/ Wang Tat Road/ Ma Wang Road	Signalized	3.6
F	Fo Yip Street / Wang Yip Street West / Hi Yip Street	Priority	3.7
G	Castle Peak Road - Yuen Long / Yuen Long On Lok Road / Long Yat Road	Signalized	3.8
H	Castle Peak Road - Yuen Long / Long Yat Road	Signalized	3.9
I	Pok Oi Interchange	Signalized	3.10

3.2.2 In order to study the existing traffic condition of the above critical junctions, traffic survey in the form of manual-classified count was conducted for the nine junctions

during the peak periods on a typical weekday in 16 March 2026 from 07:30 to 09:30 and from 17:00 to 19:00 respectively. The survey provides most up-to-date details of the traffic condition within the study area under normal operation. Based on the observed traffic flows, it reveals that morning and evening peak hours occurred from 07:45 to 08:45 and from 17:15 to 18:15 respectively.

3.2.3 The 2026 existing peak traffic flows are presented in **Figure 3.11 (Rev.A)**. The operational performances of the critical junctions are listed in **Table 3.2** below.

Table 3.2 Operational Performances of Critical Junctions in 2026

Ref.	Junction	Method of Control	Year 2026 RC/DFC (1)	
			AM Peak	PM Peak
A	Yuen Long On Lok Road/ Long Yip Street/ Po Yip Street / Yuen Long Tung Tai Street	Signalized	58%	88%
B	Po Yip Street / Keung Yip Street	Priority	0.31	0.34
C	Wang Yip Street East/ Keung Yip Street	Priority	0.24	0.25
D	Wang Yip Street East/ Hi Yip Street	Priority	0.20	0.15
E	Yuen Long On Lok Road/ Long Yip Street /Wang Lok Street/ Wang Tat Road/ Ma Wang Road	Signalized	72%	88%
F	Fo Yip Street / Wang Yip Street West / Hi Yip Street	Priority	0.43	0.34
G	Castle Peak Road - Yuen Long / Yuen Long On Lok Road / Long Yat Road	Signalized	38%	50%
H	Castle Peak Road - Yuen Long / Long Yat Road	Signalized	43%	56%
I-1	Pok Oi Interchange (Yuen Long Highway Slip Road Northbound)	Signalized	28%	25%
I-2	Pok Oi Interchange (Yuen Long Highway Slip Road Southbound)	Signalized	36%	35%

Note: (1) RC = Reserve Capacity for Signal Junction;
DFC = Design Ratio of Flow to Capacity for Priority Junction/Roundabout

3.2.4 The assessment results in **Table 3.2** indicate that all critical junctions are at present operating with ample capacities during the peak hours.

3.2.5 The existing link capacity for adjacent road network is assessed and the results are shown in **Table 3.3.**

Table 3.3 Existing Link Capacity Assessment

Road Section	Direction	Capacity (veh/hr)	Traffic Flows (veh/hr)		V/C Ratio	
			AM	PM	AM	PM
Wang Yip Street East	Two-way	744(1)	265	280	0.36	0.38
Keung Yip Street	Two-way	744(1)	240	265	0.32	0.36
Po Yip Street	Northbound	1,300(3)	365	315	0.28	0.24
	Southbound	2,340(2)	590	490	0.25	0.21
Long Yip Street	Eastbound	2,418(1)	1,425	1,120	0.59	0.46
Yuen Long On Lok Road	Westbound	4,200	1,365	1,455	0.33	0.35
Kwong Yip Street	Northbound	744(1)	150	115	0.20	0.15
Wang Yip Street South	Two-way	720(2)	120	135	0.17	0.19

Notes:
(1) With reduction factor of 7% for HV percentage between 15-20%
(2) With reduction factor of 10% for HV percentage between 20-25%
(3) Consideration is given to illegal parking along the nearside traffic lane

3.2.6 **Table 3.3** shows that all critical road links operate with capacities during the AM and PM peak hours.

3.3 Public Transport Services in the Vicinity

3.3.1 Numerous road-based public transport services, for instance, franchised bus and GMB are also provided in vicinity of the proposed development. Details of the current services of franchised bus and GMB routes are listed in **Table 3.4** and are illustrated diagrammatically in **Figure 3.12**.

Table 3.4 Public Transport Services in the Vicinity of the Proposed Development

Service	Route	Origin / Destination	Frequency (mins)
KMB	53	Yoho Mall (Yuen Long) - Tsuen Wan (Nina Tower)	25-35
	54	Yuen Long (West) - Sheung Tsuen (Circular)	30
	69	Tin Shui Wai Town Centre - Yuen Long (Tak Yip Street)	20-30
	64K	Yuen Long (West) - Tai Po Market Station	7-20
	64X	Hung Shui Kiu (Hung Yuen Road) - Hong Kong Science Park	AM Peak
	68M	Tsuen Wan Station - Yuen Long (West) B/T	7-20
	68X	Hung Shui Kiu (Hung Fuk Estate) - Mong Kok (Park Avenue)	9-25
	77K	Sheung Shui - Yuen Long (Fung Cheung Road)	12-30
	76K	Sheung Shui (Ching Ho) - Long Ping Estate	20-30
	251C	Kong Ha Wai - Yuen Long (Hong Lok Road)	30
	264R	Tai Po Market Station - Tin Yiu	30
	265S	Tai Po Industrial Estate - Tin Shui Wai Town Centre	AM
	268A	Long Ping Estate - Kwun Tong Ferry	AM and PM Peak
	268B	Long Ping Station - Hung Hom (Hung Luen Road)	20-30
	268C	Long Ping Station - Kwun Tong Ferry	5-30
	268P	Ma Wang Road (San Shui House) - Kwun Tong Ferry	AM and PM Peak
	268X	Hung Shui Kiu (Hung Fuk Estate) - Jordan (West Kowloon Station)	6-35
	269D	Tin Fu - Lek Yuen	7-25
	276	Tin Tsz - Sheung Shui	15-30
	276C	Tin Shui Wai Station - Fanling (Cheung Wah)	AM and PM Peak
	276P	Tin Shui Wai Station - Sheung Shui	7-30
	968	Yuen Long (West) - Causeway Bay (Tin Hau)	6-20
	968A	Yuen Long (West) - Causeway Bay (Tin Hau)	AM Peak
	968X	Yuen Long (Tak Yip Street) - Quarry Bay (King's Road)	AM and PM Peak
	P968	Yuen Long (West) - Causeway Bay (Tin Hau)	AM and PM Peak
	B1	Tin Tsz - Lok Ma Chau Station (Futian)	8-30
	N269	Tin Tsz - Mei Foo	Overnight
	N368	Yuen Long (West) - Central (Macao Ferry)	Overnight
LWB	A36	Kam Sheung Road Station - Airport (Ground Transportation Centre)	15-60
	A37	Long Ping Station - Airport (Ground Transportation Centre)	20-30
	E36	Pat Heung Road - Airport (Ground Transportation Centre)	15-30
	E36C	Yuen Long (Tak Yip Street) - Aircraft Maintenance Area	AM Peak and PM Peak
	E36S	Yuen Long (Ma Wang Road) - Airport (Ground Transportation Centre)	15-25
	NA36	Kam Sheung Road Station - Cathay Pacific City	Overnight
	N30	Yuen Long Station - Airport (Cheong Tat Road)	Overnight
MTR	K68	Yuen Long Industrial Estate - Tai Kiu Tsuen	10-20
	K73	Yuen Long West - Tin Heng	4-10
	K74	Tin Shui Wai Town Centre - Au Tau (Circular)	20-60
	K66	Long Ping - Tai Tong Wong Nai Tun Tsuen	4-15
	K65	Yuen Long Station - Lau Fau Shan	9-16
NLB	B2	Yuen Long Mtr Station - Shenzhen Bay Port	20

GMB	32	Yuen Long Station (North) Public Transport Interchange - Tan Kwai Tsuen	10-15
	33	Yuen Long (Tai Fung Street) - Ha Pak Nai	20-30
	35	Yuen Long (Tai Fung Street) - Sha Kiu (Tsim Bei Tsui)	18-23
	36	Yuen Long (Fook Hong Street) - Tai Shang Wai Rural Office	10-15
	36A	Yuen Long (Fook Hong Street) - Yau Pok Road Light Public Housing	20
	37	Yuen Long (Fook Hong Street) - Yau Tam Mei Village Office	12-15
	38	Yuen Long (Fook Hong Street) - Ha Chuk Yuen (Near Ho Sang Farm)	10-15
	71	Shek Wu Tong (Ho Pui) - Yuen Long (Yuen Long Tai Hang Street)	15
	72	Yuen Long (Yuen Long Tai Hang Street) - Lui Kung Tin	10
	73	Yuen Long (Fook Hong Street) Public Light Bus Terminus - Sung Shan San Tsuen	10-20
	74	Yuen Long (Fook Hong Street) - Shing Uk Tsuen	8-15
	74A	Yuen Long (Fook Hong Street) - Tung Tau Wai	15
	75	Yuen Long (Fook Hong Street) - Ha Wan Tsuen	15-20
	76	Yuen Long (Fook Hong Street) - Siu Hum Tsuen	15-20
	79S	Tin Shui Wai (Grandeur Terrace) - Lok Ma Chau Control Point	30-60
	601	Yuen Long (Fung Cheung Road) - Pak Wai Tsuen	10-20
	601C	Yuen Long (Fung Cheung Road) - Kam Sheung Road Station (Circular)	20
	602	Yuen Long (Fung Cheung Road) - Tai Kong Po	15-20
	603	Yuen Long (Fung Cheung Road) - Fung Kat Heung	20-25
	604	Yuen Long (Fung Cheung Road) - Shan Ha Tsuen	10-20
	608	Wang Toi Shan (Pat Heung) > Yuen Long (Fung Cheung Road) (Circular Route)	10-13
	609	Yuen Long Stadium - Pok Oi Hospital (Circular Route)	6-15
	609B	Long Shin Estate - Yuen Long Station (Circular)	6
	609S	Long Shin Estate - Yuen Long Station (North) Public Transport Interchange	10
	611	Shan Pui Road - Fau Tsoi Street (Circular)	8-15
	611A	Yuen Long Station - Shan Pui Road (Circular)	5
	611B	Kwan Lok Lane - Yuen Long Station (Circular)	15
	611P	Shan Pui Road - On Shun Street (Circular)	20-30
	611S	United Court (Shan Pui Road) - Yuen Long Station (Circular)	15

Note:
KMB – Kowloon Motor Bus
LWB – Long Win Bus
MTR – MTR Bus
NLB – New Lantao Bus

4. FUTURE TRAFFIC CONDITION & TRAFFIC IMPACT ASSESSMENT

4.1 Design Year

4.1.1 It is anticipated that the proposed development would be completed in 2030 tentatively with full intended operation. In order to assess the possible traffic impacts to the local road network due to the proposed development, year 2033 (i.e. 3 years after completion) has been adopted as the design year for this study.

4.2 Traffic Forecast

4.2.1 To estimate the reference traffic flow in year 2033 (without the proposed development) in the local road network, an appropriate growth factor has to be identified for the area in the first instance. The following approaches have been adopted to derive the growth factor for the Area of Influence.

Historical Trend

4.2.2 Numerous traffic-count stations are located in the vicinity of the proposed development. The traffic counts reported in the Annual Traffic Census (ATC), which is published by Transport Department, over a period of seven years, i.e. 2018 to 2024 are summarized in **Table 4.1**.

Table 4.1 Historical Traffic Data from Annual Traffic Census (ATC)

Stn No.	Road Name	AADT							Annual Growth Rate
		2018	2019	2020	2021	2022	2023	2024	2018-2024
5011	Wang Chau Rd (From Yuen Long On Ning Rd to Yuen Long On Lok Rd)	5,970	5,880	5,300	5,210	5,080	4,990	5,140	-2.46%
5837	Yuen Long On Ning Rd (From Tai Kiu Rd to Wang Chau Rd)	10,140	10,070	9,650	9,860	9,290	9,510	9,053	-1.87%
5812	Long Yip St & Yuen Long On Lok Rd (From Tai Kiu Rd to Wang Chau Rd)	23,790	24,730	23,540	25,330	25,340	26,920	27,080	2.18%
6032	Yuen Long On Ning Rd (From Wang Chau Rd to Tai)	16,080	15,960	15,300	15,920	13,430	13,640	13,680	-2.66%
6008	Long Yip St & Yuen Long On Lok Rd (From Wang Chau Rd to Tai Cheung St)	32,160	33,440	31,830	33,380	32,480	32,660	32,840	0.35%

5836	Tai Kiu Rd (From Yuen Long On Ning Rd to Yuen Long On Lok Rd)	6,480	6,430	6,170	6,590	7,180	7,350	7,370	2.17%
6059	Long Yip St FO <192>	25,480	26,500	25,230	26,460	24,450	23,240	23,370	-1.43%
5440	Castle Peak Rd - Yeun Long	45,510	45,570	45,860	47,700	46,240	47,330	45,680	0.06%
5208	Long Yip St & Yuen Long On Lok Rd	37,360	37,050	35,270	36,990	35,350	37,320	39,600	0.98%
6019	Long Yip St & Yuen Long On Lok Rd	22,050	22,920	21,820	22,890	24,180	26,130	26,280	2.97%
5611	Wang Tat Rd, Ma Wang Rd, Long Yip Rd & Yuen Long On Lok Rd	16,620	17,280	19,150	20,760	19,840	21,080	21,200	4.14%
6628	Wang Lok St	15,220	16,720	15,430	16,410	16,460	16,680	17,490	2.34%
Total AADT of Vicinity		**256,860**	**262,550**	**254,550**	**267,500**	**259,320**	**266,850**	**268,783**	**+0.76%**

Planning Data

4.2.3 Reference has also been made to the latest 2021-Based Territorial Population Employment Data Matrices (TPEDM) planning data published by the Planning Department for projection of population and employment within the study district. The average annual growth rates in terms of population and employment from 2026 to 2031 are tabulated in **Table 4.2**.

Table 4.2 2021-Based Planning Data from 2021 to 2031

Yuen Long District				
Data	**Year**			**Average Annual Growth Rate (2026-2031)**
	2021	**2026**	**2031**	
Population	668,100	685,000	760,600	2.12%
Employment	152,850	238,500	258,200	1.60%
Total	820,950	923,500	1018,800	**+1.99%**

4.2.4 From Hong Kong Population Projections 2022-2046 obtained from the Census and Statistics Department, average annual growth rates in terms of population from 2031 to 2046 is +0.31%, details are summarised in **Table 4.3**.

Table 4.3 Hong Kong Population Projections 2031-2046

Year	2031	2046	Average Growth Rate
Population	7,820,200	8,190,400	**+0.31%**

Adopted Growth Rate

4.2.5 A.A.D.T. of ATC indicates that the traffic flow of the local road network has an average annual growth rate of +0.76% from year 2018 to year 2024.

4.2.6 Whilst, the planning data indicates that the population and employment of the study area are expected to grow with an average annual growth rate of +1.99% from 2026 to 2031 and the population with an average growth rate of +0.31% from 2031 to 2046.

4.2.7 As a conservative approach, an annual growth rate of **+1.99% p.a.** is adopted for assessment year 2026-2031 and an annual growth rate of **+0.31% p.a**. is adopted from assessment year 2031-2033. It is deemed sufficient to allow for any unexpected future growth as a result of some changes in land use or development in the study area.

Adjacent New Developments

4.2.8 Additional traffic generation and attraction of major committed/planned developments in the vicinity have been estimated and superimposed onto the road network to derive the year 2033 reference traffic flow. The estimated trip generation and attractions of the planned developments are summarized and illustrated in **Table 4.3**.

Table 4.3 Major Planned/ Committed Development in the Vicinity

Planning Application No.	Development Site	Uses	Development Parameters (Approx.)	Trip (pcu/hr)			
				AM Peak		PM Peak	
				GEN	ATT	GEN	ATT
A/YL/290	Tung Tau Industrial Area (1)	Non-domestic	190 parking spaces	27	42	33	31
/	Wang Chau Phase I (2)	Domestic	4,400 flats	217	156	121	167
A/YL/312	Multi-storey Building in YLIE (3)	Non-domestic	161,500 m^2	195	311	222	202
/	Public Housing Development at Tin Tsz Road (4)	Domestic	8,400 flats	493	407	319	348
LSPS/005	Land Sharing Pilot Scheme at Wing Ning Tsuen (5)	Domestic	5,613 flats	460	324	246	290
/	Wang Chau Remaining Phase (6)	Domestic	13,000 flats	922	732	505	597
/	Proposed Extension of YLIE (7)	Non-domestic	2,915,000 m^2	81	87	91	47
Y/YL/21	Proposed RCHE, residential and retail uses development of Yuen Long Theatre Lot 3678 in DD120 (8)	Domestic	74 flats	16	17	23	21
		RCHE	220 beds				
		Non-domestic	1,546 m^2				
LSPS/002	Proposed Land Sharing Pilot Scheme for a Site at Various Lots in D.D. 115, Yuen Long, the New Territories (9)	Domestic	3,316 flats	272	196	114	147
		Non-domestic	25,770 m^2				
/	Proposed Comprehensive Development with Wetland Enhancement (CDWE) at Nam Sang Wai and Lut Chau (10)	Domestic	2,512 Flats	662	494	485	501

Notes:
1. Reference from Table 4.6 of previously approved Traffic Impact Assessment (TIA)
2. Data retrieved from 'Wang Chau Phase 1 Planning Brief', published by Hong Kong Housing Authority https://www.pland.gov.hk/file/resources/approved_pb/hd_pb/pdf/Wang_Chau_Phase_1_Yuen_Long.pdf
3. Reference from Town Planning Board: https://www.tpb.gov.hk/en/plan_application/A_YL_312.html
4. Data retrieved from 'Sites for Public Housing Development Estimated to be Completed from 2029-30 to 2033-34 (Position as at September 2023)', published by Development Bureau https://www.devb.gov.hk/filemanager/en/content_1322/2nd%20five-year%20project%20list_EN.pdf
5. Reference from: https://www.devb.gov.hk/filemanager/en/content_1154/LSPS_005_Gist.pdf
6. Reference from: https://www.cedd.gov.hk/eng/media-corner/project-reports/index-id-18.html
7. Reference from: https://hos.housingauthority.gov.hk/pdf/wangchau_report/TIA_Main_text.pdf
8. Reference from: https://www.tpb.gov.hk/en/plan_application/A_YL_319/FI_20240805/Traffic_Impact_Assessment_1.pdf
9. Reference from its TIA
10. Reference from: https://www.epd.gov.hk/eia/files/applications/en/pp_234/eia_5872/progress/action_172864/HTML/EIA%20Report%20PDF/Executive%20Summary/%E8%A1%8C%E6%94%BF%E6%91%98%E8%A6%81.pdf

4.3 Reference Traffic Flow in Year 2033

4.3.1 The year 2033 reference traffic flow is estimated by applying the adopted growth rate to the year 2026 adopted traffic flow.

4.3.2 The 2033 reference peak traffic flows are presented in **Figure 4.1 (Rev.A)**. The derivation for traffic flow of adjacent development has been made reference from the other TIA's report.

2033 Reference Traffic Flows (without proposed development)	=	**2026 Adopted Traffic Flows**	x	**Adopted Growth Factor i.e. +1.99% p.a. for 5 years and +0.31% p.a. for 2 years**	+	**Adjacent Developments**

4.4 Traffic Trips of the Proposed Development

4.4.1 Trip generation and attraction rates of private housing and retail as stipulated in T.P.D.M have been adopted for estimating the trip generations and attractions of the proposed development and summarized in the **Table 4.4**.

Table 4.4 Adopted Trip Rates for the Proposed Private Housing and Retail

Use	Category	Unit	Trip Generation Rates			
			AM Peak		PM Peak	
			Gen	Att	Gen	Att
Residential	R(A) - FS </= 60 - Mean	pcu/hour/flat	0.0718	0.0425	0.0286	0.0370
	R(A) - FS </= 70 - Mean	pcu/hour/flat	0.0888	0.0515	0.0356	0.0480
Retail	Retail/ Shopping Complex (Office + Retail)	pcu/hour/100m^2	0.2296	0.2434	0.3100	0.3563

4.4.2 As the use of government, institution and community (GIC) is not specified in the latest Transport Planning & Design Manual (TPDM), the estimation of the traffic trips related to GIC made reference to A/FSS/299, Instruction No. A20 – Proposed Public Housing Development at Po Shek Wu Road Traffic Review. Detail is summarized in the **Table 4.5**.

Table 4.5 Adopted Trip Rates for Proposed GIC

Use	Units	Trip Generation (pcu/hr) (1)			
		AM Peak		PM Peak	
		Gen	Att	Gen	Att
Government, Institution and Community (GIC) (2): - 100-place Child Care Centre (CCC) - A 100-place Residential Care Home for the Elderly (RCHE) - A main base of Short-term Food Assistance Service Team (STFAST) - Home Care Services (HCS) for Frail Elderly Persons	pcu/hr/ 100m^2 GFA	0.2230	0.2230	0.2230	0.2230

Notes:

(1) The adopted trip rates for the proposed development were referenced from *A/FSS/299, Instruction No. A20 – Proposed Public Housing Development at Po Shek Wu Road, Traffic Review* approved on 10 January 2025, which could be retrieved from pages 121-180 of https://www.tpb.gov.hk/uploads/page/meetings/RNTPC/A_FSS_299_A/A_FSS_299_A_Appendix.pdf.
The GFA of its approved welfare facilities is 4,484 m^2, with corresponding trips of 10 pcu/hr for both AM and PM trip generation and attraction, as shown at p.124 of the pdf.
The trip rate estimation method applied to the proposed GIC is calculated as 10 pcu/hr ÷ 4,484 m^2× 100 m^2 = 0.2230 pcu/hr/100m^2 GFA.

(2) Refer to p.187 on the pdf of *A/FSS/299, Instruction No. A20 – Proposed Public Housing Development at Po Shek Wu Road, Traffic Review* for type of GIC

4.4.3 Based on the adopted trip rate listed in **Table 4.4** and **Table 4.5** as well as the development parameters in **Table 2.1**, the total of the trip generation and attraction of the proposed development are estimated and summarized in the **Table 4.6**.

Table 4.6 Traffic Generations and Attractions of Proposed Development

Use	Development Parameter	Trip Generation (pcu/hr)			
		AM Peak		PM Peak	
		Gen.	Att.	Gen.	Att.
Private Housing: High-Density (Average Flat Size: 60 m^2)	1,015 flats	73	44	30	38
Private Housing: High-Density (Average Flat Size: 70 m^2)	53 flats	5	3	2	3
Retail	1,600 m^2	4	4	5	6
Government, Institution and Communities (GIC)	422 m^2	1	1	1	1
Total (pcu/hr)		**83**	**52**	**38**	**48**

4.4.4 For reference, the net change in traffic generation between the Proposed Development and the approved scheme, the traffic trips will slightly decrease in AM peak but slightly increase in PM peak to the surrounding road network, as shown in **Table 4.7**.

Table 4.7 Net Difference of Traffic Trip between current and the approved proposals

Item	Trip Generation (pcu/hour)			
	AM Peak		PM Peak	
	Gen	Att	Gen	Att
Current Scheme (1)	83	52	38	48
Approved Scheme (2)	83	53	38	47
Difference	**0**	**-1**	**0**	**+1**

Notes:
(1) Refer to Table 4.6
(2) Reference from previously approved Traffic Impact Assessment report Table 4.4.

4.5 Traffic Forecast for Design Year 2033

4.5.1 The traffic trips of the proposed development as shown in **Figure 4.2 (Rev.A)**, which is superimposed onto the year 2033 reference traffic flow (without the proposed development) as shown in **Figure 4.1 (Rev.A)** to derive the year 2033 design traffic flow (with the proposed development).

Year 2033 Design Traffic Flow (with the Proposed Development)	=	**Year 2033 Reference Traffic Flow (without the Proposed Development)**	+	**Traffic Trips of the Proposed Development**

4.5.2 The traffic flow during peaks derived from AM and PM peak periods in the design year 2033 (with the proposed development) as shown in **Figure 4.3 (Rev.A)**.

4.6 Operational Assessment

4.6.1 To assess traffic impacts due to the proposed development, operational assessment of the critical junctions identified in **Chapter 3** are carried out for both reference (without the proposed development) and design (with the proposed development) scenarios in year 2033. The results are summarized in **Table 4.8**.

Table 4.8 Operational Performance of Critical Junctions in Year 2033

Ref.	Junction	Method of Control	Year 2033 RC/DFC (1)			
			Reference Scenario (Without the Proposed Development)		Design Scenario (With the Proposed Development)	
			AM Peak	PM Peak	AM Peak	PM Peak
A	Yuen Long On Lok Road/ Long Yip Street/ Po Yip Street / Yuen Long Tung Tai Street	Signalized	26%	48%	21%	45%
B	Po Yip Street / Keung Yip Street	Priority	0.40	0.42	0.57	0.49
C	Wang Yip Street East/ Keung Yip Street	Priority	0.27	0.28	0.34	0.34
D	Wang Yip Street East/ Hi Yip Street	Priority	0.22	0.17	0.24	0.18
E	Yuen Long On Lok Road/ Long Yip Street /Wang Lok Street/ Wang Tat Road/ Ma Wang Road	Signalized	23%	38%	22%	37%
F	Fo Yip Street / Wang Yip Street West / Hi Yip Street	Priority	0.48	0.39	0.49	0.41

G	Castle Peak Road - Yuen Long / Yuen Long On Lok Road / Long Yat Road	Signalized	24%	35%	24%	35%
H	Castle Peak Road - Yuen Long / Long Yat Road	Signalized	18%	32%	17%	32%
I-1	Pok Oi Interchange (Yuen Long Highway Slip Road Northbound)	Signalized	**8%**	**5%**	**7%**	**4%**
I-2	Pok Oi Interchange (Yuen Long Highway Slip Road Southbound)	Signalized	**9%**	**6%**	**8%**	**6%**

Notes: (1) RC = Reserve Capacity for Signal Junction;
DFC = Design Ratio of Flow to Capacity for Priority Junction/Roundabout

4.6.2 The assessment result in **Table 4.8** reveals that all junctions operate with ample capacities in both reference and design scenarios in year 2033 except junction I-1 and I-2 (Pok Oi Interchange).

4.6.3 However, it is considered that the proposed development only generated insignificant traffic impact to Pok Oi Interchange with maximum -1% for the junction performance.

4.6.4 The traffic generated by the proposed development would induce insignificant impact on the surrounding road network. Therefore, the application is supported from the traffic points of view.

4.6.5 The 2033 link capacity for adjacent road network is also assessed and the results are shown in **Table 4.9** and **Table 10**.

Table 4.9 2033 Link Capacity Assessment (Without Proposed Development)

Road Section	Direction	Capacity (veh/hr)	Traffic Flows (veh/hr)		V/C Ratio	
			AM	PM	AM	PM
Wang Yip Street East	Two-way	744	300	315	0.40	0.42
Keung Yip Street	Two-way	744	280	305	0.38	0.41
Po Yip Street	Northbound	1,300	450	410	0.35	0.32
	Southbound	2,340	695	570	0.30	0.24
Long Yip Street	Eastbound	2,418	1,855	1,410	0.77	0.58
Yuen Long On Lok Road	Westbound	4,200	1,795	1,915	0.43	0.46
Kwong Yip Street	Northbound	744	165	135	0.22	0.18
Wang Yip Street South	Two-way	720	135	150	0.19	0.21

Table 4.10 2033 Link Capacity Assessment (With Proposed Development)

Road Section	Direction	Capacity (veh/hr)	Traffic Flows (veh/hr)		V/C Ratio	
			AM	PM	AM	PM
Wang Yip Street East	Two-way	744	400	375	0.54	0.50
Keung Yip Street	Two-way	744	385	365	0.52	0.49
Po Yip Street	Northbound	1,300	490	445	0.38	0.34
	Southbound	2,340	760	600	0.32	0.26
Long Yip Street	Eastbound	2,418	1,900	1,430	0.79	0.59
Yuen Long On Lok Road	Westbound	4,200	1,820	1,940	0.43	0.46
Kwong Yip Street	Northbound	744	170	135	0.23	0.18
Wang Yip Street South	Two-way	720	135	150	0.19	0.21

4.6.6 **Tables 4.9** and **4.10** shows that all critical road links operate with capacities during the AM and PM peak hours in both reference and design scenarios in year 2033.

5. PEDESTRIAN IMPACT ASSESSMENT

5.1 Survey on Pedestrian Flows in the Vicinity

5.1.1 In order to acquire the existing pedestrian condition around the proposed development, a pedestrian headcount survey was conducted at concerned footpath sections on a normal weekday on 16 March 2026 from 07:30 to 09:30 and from 17:00 to 19:00 respectively. The assessment sections are shown in **Figure 5.1 (Rev.A)**.

5.1.2 To concept of Minimum Width of Footways and Level-of-service (LOS) in accordance with **T.P.D.M. Volume 2 Chapter 3.4.11** and **Volume 6 Chapter 10** have been applied for assessing the concerned walkways. The Minimum Width of Footways refers to the desirable minimum effective widths of footways according to pedestrian volume and type of land use. LOS directly relates to the pedestrian comfort and ease with which pedestrians queued and proceed at the walkway.

5.1.3 The related assessment of pedestrian is based on Level-of-Service (LOS) approach, which is stipulated in T.P.D.M. (**Volume 6, Chapter 10, Section 10.4.2**), defines the service level of walkway in terms of several parameters such as pedestrian flow rate, pedestrian space, walking speed, etc. The standard with relevant descriptions is summarized in **Table 6.1**.

Table 6.1 Descriptions of Level-of-Service (LOS)

LOS	Flow Rate (ped/min/meter)	Description
A	≤ 16	Pedestrians basically move in desired paths without altering their movements in response to other pedestrians. Walking speeds are freely selected, and conflicts between pedestrians are unlikely.
B	16 - 23	Sufficient space is provided for pedestrians to freely select their walking speeds, to bypass other pedestrians and to avoid crossing conflicts with others. At this level, pedestrians begin to be aware of other pedestrians and to respond to their presence in the selection of walking paths.
C	23 - 33	Sufficient space is available to select normal walking speeds and to bypass other pedestrians primarily in unidirectional stream. Where reverse direction or crossing movement exists, minor conflicts will occur, and speed and volume will be somewhat lower.

D	33 - 49	Freedom to select individual walking speeds and bypass other pedestrians is restricted. Where crossing or reverse-flow movements exist, the probability of conflicts is high and its avoidance requires changes of speeds and position. The LOS provides reasonable fluid flow; however considerable friction and interactions between pedestrians are likely to occur.
E	49 - 75	Virtually, all pedestrians would have their normal walking speeds restricted. At the lower range of this LOS, forward movement is possible only by shuffling. Space is insufficient to pass over slower pedestrians. Cross- and reverse-movement are possible only with extreme difficulties. Design volumes approach the limit of walking capacity with resulting stoppages and interruptions to flow.
F	> 75	Walking speeds are severely restricted. Forward progress is made only by shuffling. There are frequent and unavoidable conflicts with other pedestrians. Cross- and reverse-movements are virtually impossible. Flow is sporadic and unstable. Space is more characteristics of queued pedestrians than of moving pedestrian streams.

5.1.4 The level-of-service (LOS) for baseline operational performances of the identified critical sections are listed in **Table 6.2** and presented in **Figure 5.1 (Rev.A)**.

Table 6.2 Performance of Critical Footpath in Year 2026

2026 Observed Scenario								
			AM Peak			PM Peak		
Critical Sections	**Actual Width (m)**	**Effective Width (m) (1)**	**Two-way Pedestrian Flow (ped/hr)**	**Two-way Pedestrian Flow Rate (ped/min/m) (2)**	**LOS (3)**	**Two-way Pedestrian Flow (ped/hr)**	**Two-way Pedestrian Flow Rate (ped/min/m) (2)**	**LOS (3)**
A	3.5	2.5	217	1.45	A	285	1.90	A
B	3.2	2.2	166	1.26	A	188	1.42	A
C	3.3	2.3	562	4.07	A	687	4.98	A
D	3.5	2.5	1,219	8.13	A	1,363	9.09	A
E	2.7	1.7	50	0.49	A	93	0.91	A
F	4.7	3.7	56	0.25	A	66	0.30	A

Notes: (1) Effective Width = Actual Width – Death Width (0.5m from railings or walls for both sides)
(2) Two-way Pedestrian Flow Rate (ped/min/m) – Peak Pedestrian Flow / 60min / Effective Width
(3) LOS details extracted from the HCM are tabulated in TPDM Volume 6 Chapter 10 Clause 10.4.2.3

5.1.5 The results of assessment shown in **Table 6.2** indicate that all critical sections are operating with ample reserved capacity during AM and PM peak hours.

5.2 Future Pedestrian Conditions

5.2.1 Based on the observed pedestrian flows and the adopted growth rate of **+1.99%** from 2026 to 2031 and growth rate of **+0.31%** from 2031 to 2033 as in **Section 4.3.2**, future pedestrian reference flows at the critical sections (without proposed development) in Year 2033 are estimated and summarized in **Table 6.3** and presented in **Figure 5.2 (Rev.A)**.

Table 6.3 Performance of Critical Footpath in Reference Scenario Year 2033

2033 Reference Scenario								
Critical Sections	Actual Width (m)	Effective Width (m) (1)	AM Peak			PM Peak		
			Two-way Pedestrian Flow (ped/hr)	Two-way Pedestrian Flow Rate (ped/min/m)(2)	LOS (3)	Two-way Pedestrian Flow (ped/hr)	Two-way Pedestrian Flow Rate (ped/min/m) (2)	LOS (3)
A	3.5	2.5	240	1.60	A	315	2.10	A
B	3.2	2.2	185	1.40	A	210	1.59	A
C	3.3	2.3	625	4.53	A	765	5.54	A
D	3.5	2.5	1,355	9.03	A	1,515	10.10	A
E	2.7	1.7	55	0.54	A	105	1.03	A
F	4.7	3.7	60	0.27	A	75	0.34	A

5.3 Pedestrian Traffic Forecast

5.3.1 To estimate the pedestrian trips related to the proposed developments, same pedestrian trip rates are adopted from the approved TIA report as shown in the **Table 6.4**.

Table 6.4 Pedestrian Generation Rates

Use	Units	AM Peak		PM Peak	
		Gen.	Att.	Gen.	Att.
Private Housing	ped/15-min/flat	0.075	0.0487	0.0443	0.0443
Retail	ped/15-min/100m^2	0.4900	0.2170	1.0670	1.0670
Welfare Facilities	ped/15-min/100m^2	0.0482	0.2651	0.2892	0.2048

5.3.2 The pedestrian generated by the proposed development are summarized in **Table 6.5**.

Table 6.5 Proposed Development Pedestrian Generation

Use	Units	AM Peak		PM Peak	
		Gen.	Att.	Gen.	Att.
Residential	1,068 flats	81	53	48	48
Retail	1,600 m^2	8	4	18	18
Welfare Facility	422m^2	1	2	2	1
Total (15-min)		90	59	68	67
Total (Hourly)		**360**	**236**	**272**	**268**

5.3.3 Based on the pedestrian generation as shown in **Table 6.5**. The expected pedestrian trips at AM and PM peak hour due to the proposed development is assigned to the reference pedestrian flow and the LOS assessment is shown in **Table 6.6** and presented in **Figure 5.3 (Rev.A)**.

Table 6.6 Performance of Critical Footpath in Design Scenario Year 2033

2033 Design Scenario								
Critical Sections	Actual Width (m)	Effective Width (m) (1)	AM Peak			PM Peak		
			Two-way Pedestrian Flow (ped/hr)	Two-way Pedestrian Flow Rate (ped/min/m) (2)	LOS (3)	Two-way Pedestrian Flow (ped/hr)	Two-way Pedestrian Flow Rate (ped/min/m) (2)	LOS (3)
A	3.5	2.5	810	5.40	A	780	5.20	A
B	3.2	2.2	780	5.91	A	750	5.68	A
C	3.3	2.3	1,220	8.84	A	1,305	9.46	A
D	3.5	2.5	1,950	13.00	A	2,055	13.70	A
E	2.7	1.7	85	0.83	A	180	1.76	A
F	4.7	3.7	90	0.41	A	150	0.68	A

5.3.4 The assessment results in **Table 6.6** show that the concerned sections of footpath and will all operate with ample reserved capacity (LOS A) during AM and PM peak hours in design year 2033.

6. SUMMARY AND CONCLUSION

6.1 Summary

6.1.1 CTA Consultants Limited (CTA) is commissioned as the traffic consultant to prepare the Traffic Impact Assessment (TIA) and provide technical justifications in supporting the planning application from traffic engineering point of view.

6.1.2 To appraise the existing traffic condition, a traffic survey in the form of manual-classified count was conducted at the surrounding road network of the proposed development. Current operational performance of the critical junctions and road links have been assessed with the observed traffic flow. The results reveal that all critical junctions and road links are at present operating within its capacities.

6.1.3 Assessment of operational performance of the critical junctions revealed that all critical junctions would still operate within their capacities in both reference scenario (without proposed development) and design scenario (with proposed development) in 2033 during the peak hours except Pok Oi Interchange. However, the proposed development only generated insignificant traffic impact to Pok Oi Interchange with maximum -1% for the junction performance.

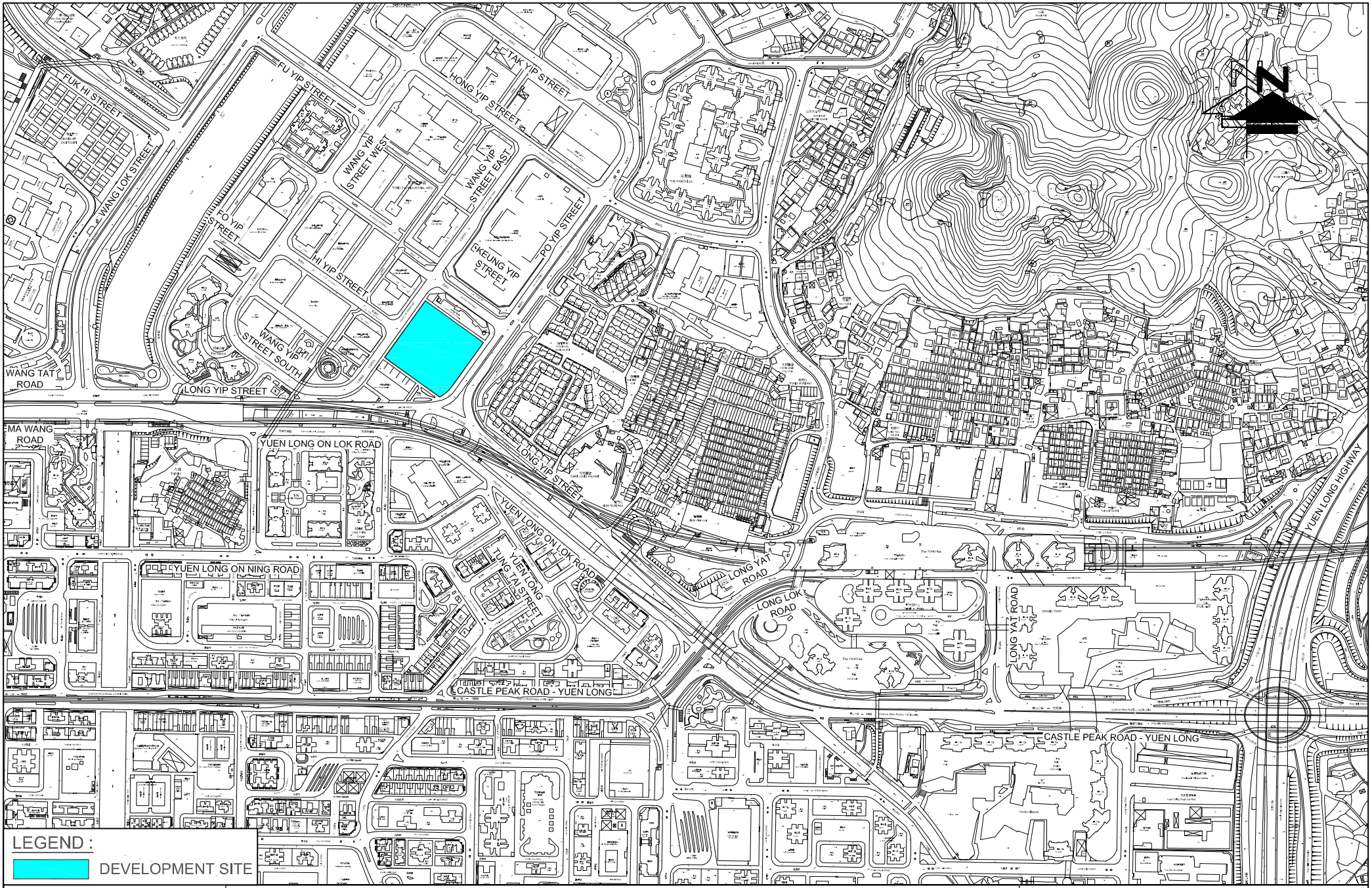
6.1.4 The LOS assessment results indicated that the critical section of footpath at proposed site will operate with adequate capacities to accommodate the estimated pedestrian flows in 2033 design year.

6.1.5 Based on the above assessment, the development is supported from the traffic points of view.

6.2 Conclusion

6.2.1 In conclusion, this Traffic Impact Assessment (TIA) study demonstrated that the related traffic trips related to the proposed development can be absorbed by the nearby road network and no significant traffic impact will be induced.

6.2.2 Therefore, the Site is considered feasible for the proposed development from traffic engineering point of view.



LEGEND :

DEVELOPMENT SITE

FIGURE NO.: 1.1	PROJECT TITLE: S16 of Lai Sun Yuen Long Center at 21-35 Wang Yip Street East, Yuen Long	CTA Consultants Limited 志達顧問有限公司
PROJECT NO.: 26016HK	DRAWING TITLE: SITE LOCATION PLAN	
SCALE: 1 : 6000 @A4 / DATE: 06 JUL 2026		

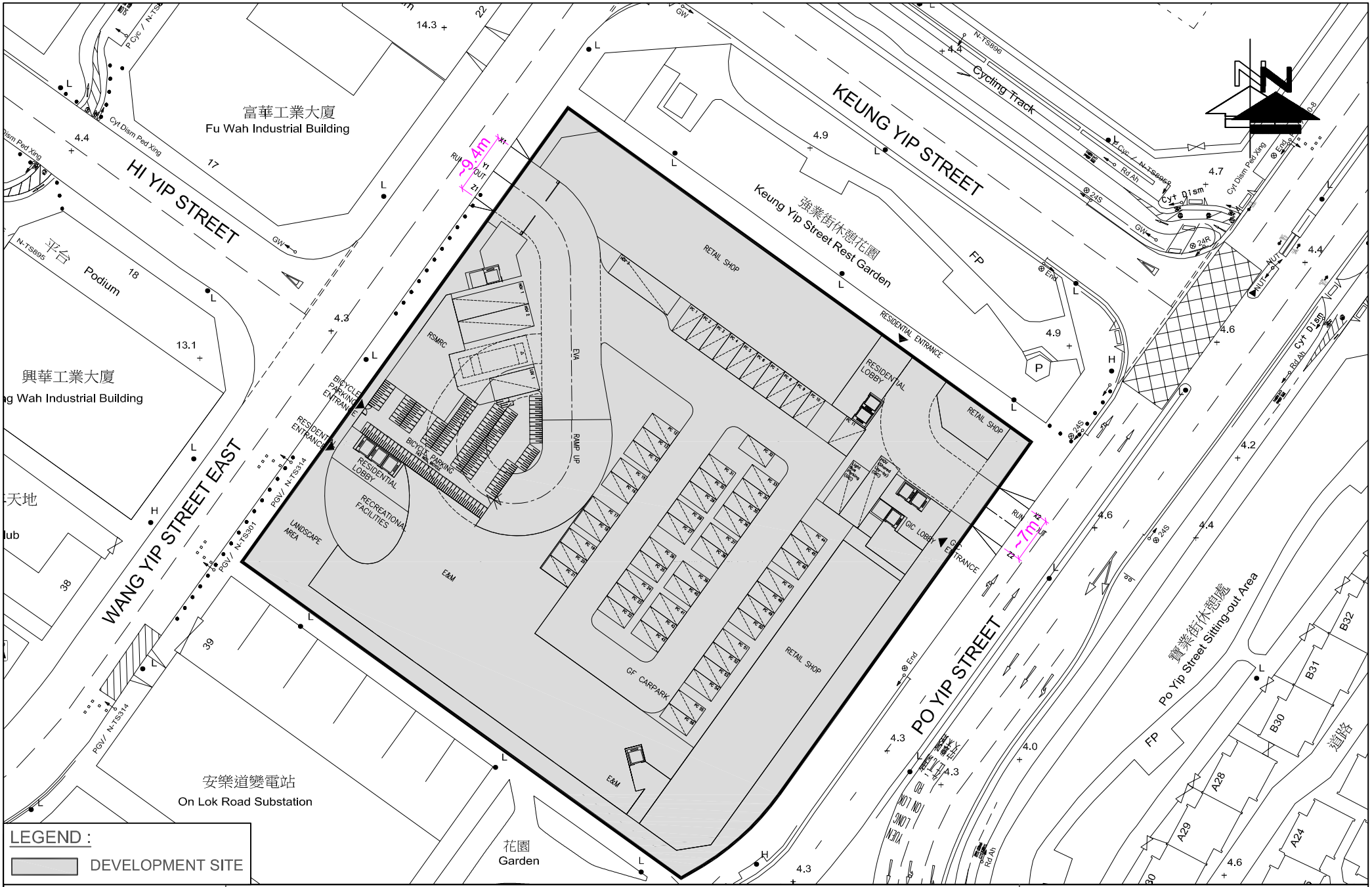


FIGURE NO.: 2.1(REV A)	PROJECT TITLE: S16 of Lai Sun Yuen Long Center at 21-35 Wang Yip Street East, Yuen Long		CTA Consultants Limited 志達顧問有限公司
PROJECT NO.: 26016HK	DRAWING TITLE: G/F LAYOUT PLAN		
SCALE: 1 : 750 @A4	DATE: 10 JUL 2026		

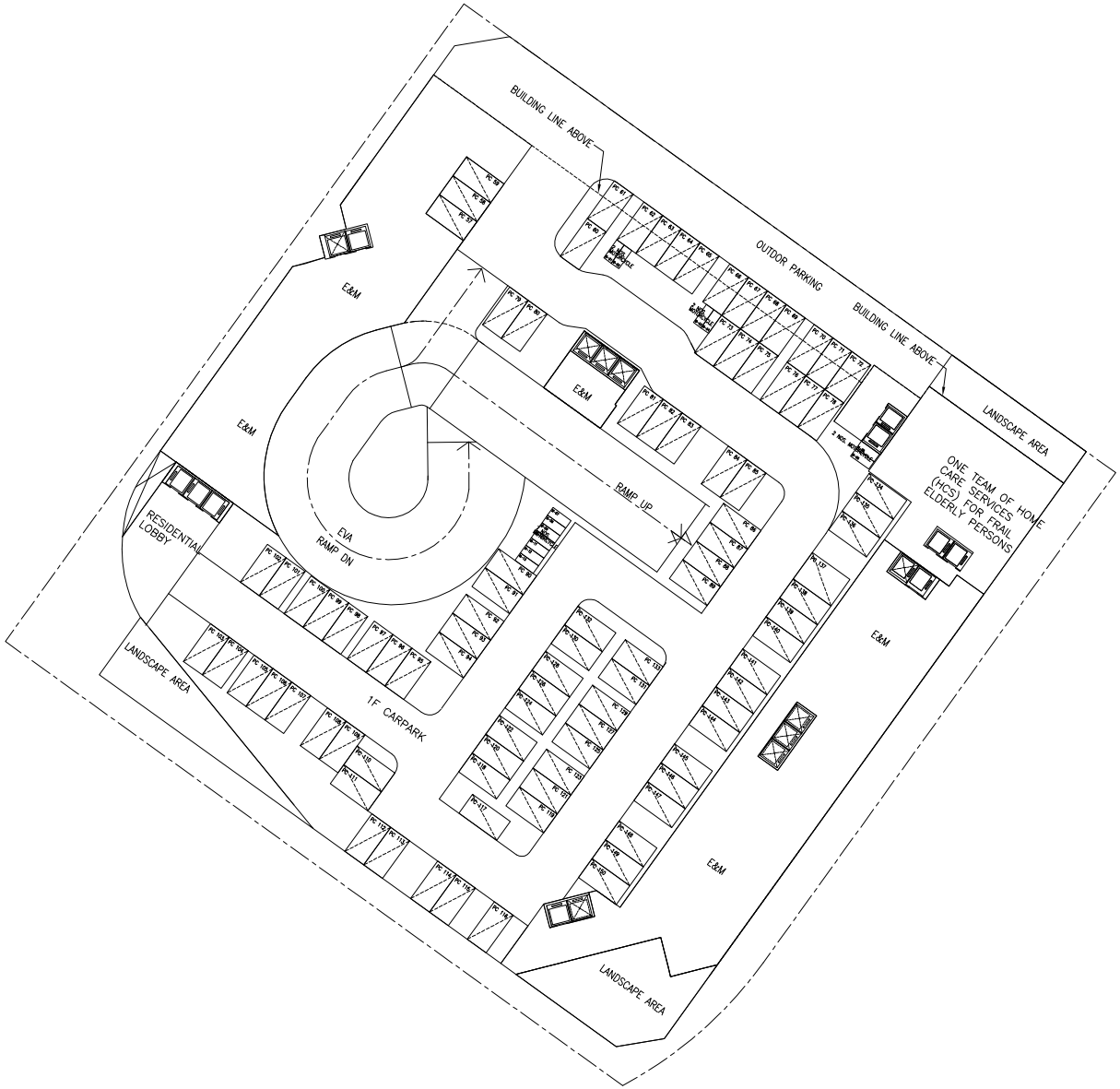


FIGURE NO.: 2.2(REV A)		PROJECT TITLE: S16 of Lai Sun Yuen Long Center at 21-35 Wang Yip Street East, Yuen Long	CTA Consultants Limited 志達顧問有限公司
PROJECT NO.: 26016HK		DRAWING TITLE: 1/F LAYOUT PLAN	
SCALE: 1 : 750 @A4	DATE: 10 JUL 2026		

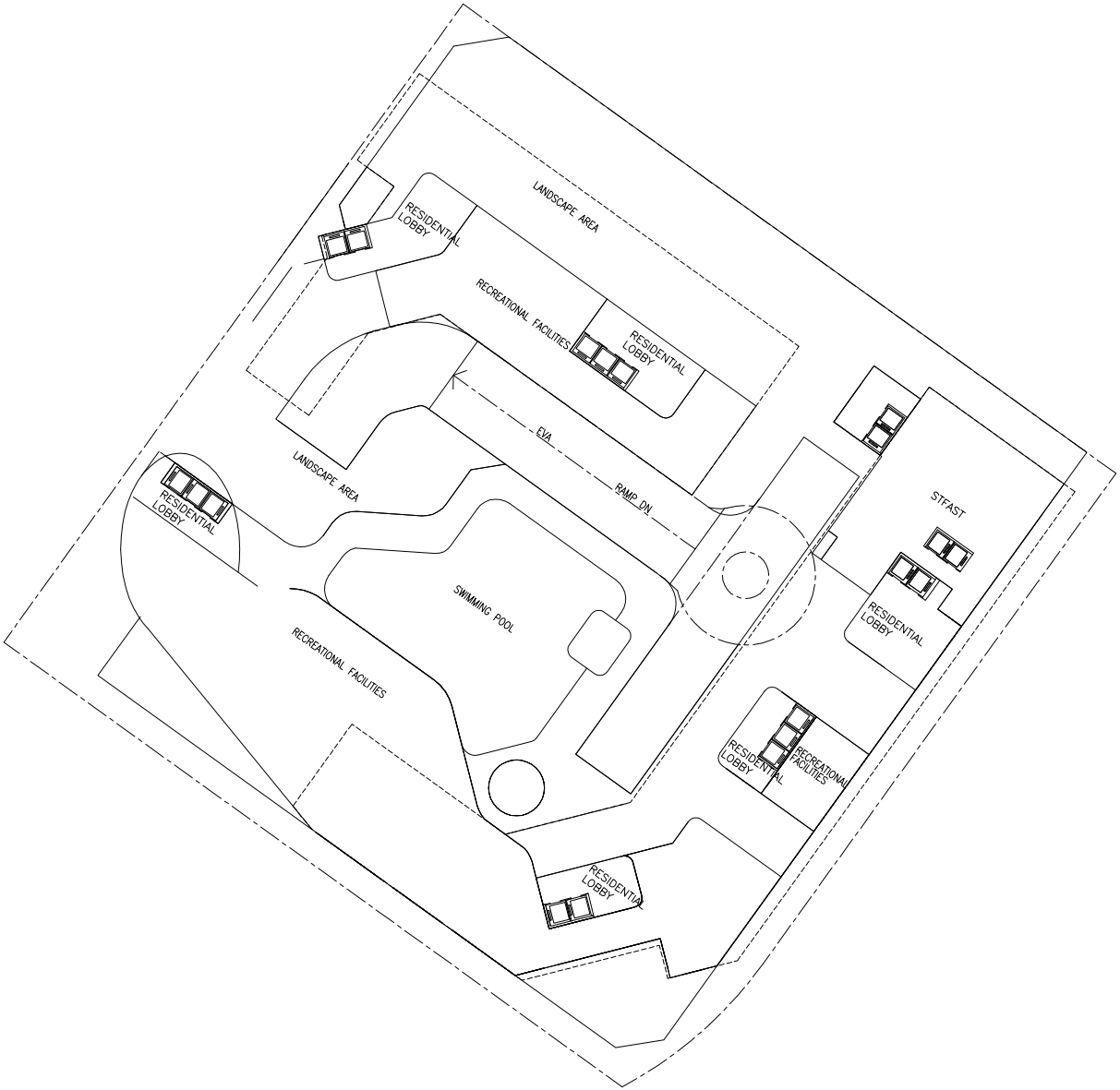
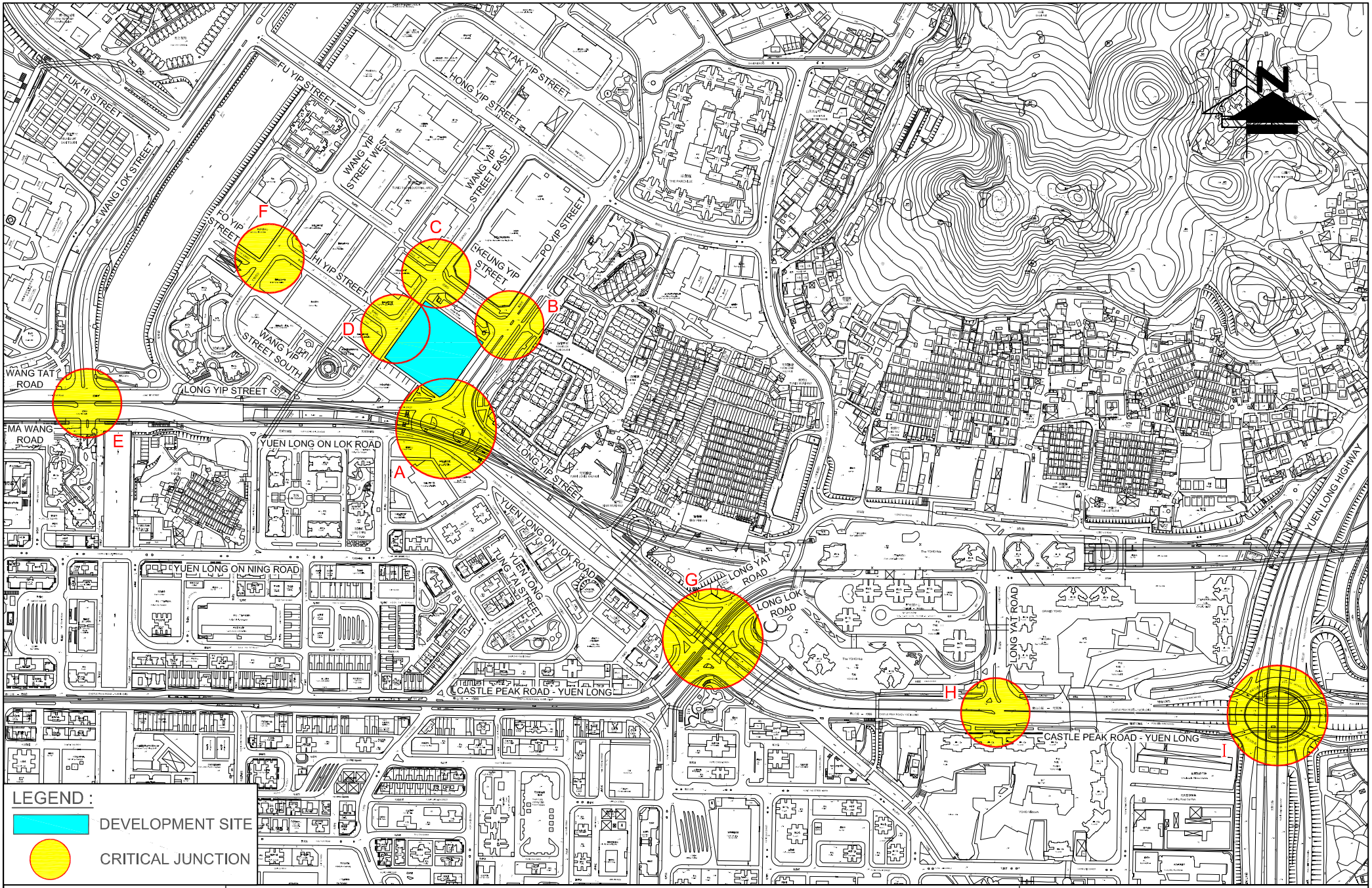


FIGURE NO.: 2.3(REV A)		PROJECT TITLE: S16 of Lai Sun Yuen Long Center at 21-35 Wang Yip Street East, Yuen Long	CTA Consultants Limited 志達顧問有限公司
PROJECT NO.: 26016HK		DRAWING TITLE: 2/F LAYOUT PLAN	
SCALE: 1 : 750 @A4	DATE: 10 JUL 2026		



LEGEND :

DEVELOPMENT SITE

CRITICAL JUNCTION

FIGURE NO.: 3.1(REV A)	PROJECT TITLE: S16 of Lai Sun Yuen Long Center at 21-35 Wang Yip Street East, Yuen Long	CTA Consultants Limited 志達顧問有限公司
PROJECT NO.: 26016HK	DRAWING TITLE: IDENTIFIED CRITICAL JUNCTIONS	
SCALE: 1 : 6000 @A4 / DATE: 06 JUL 2026		

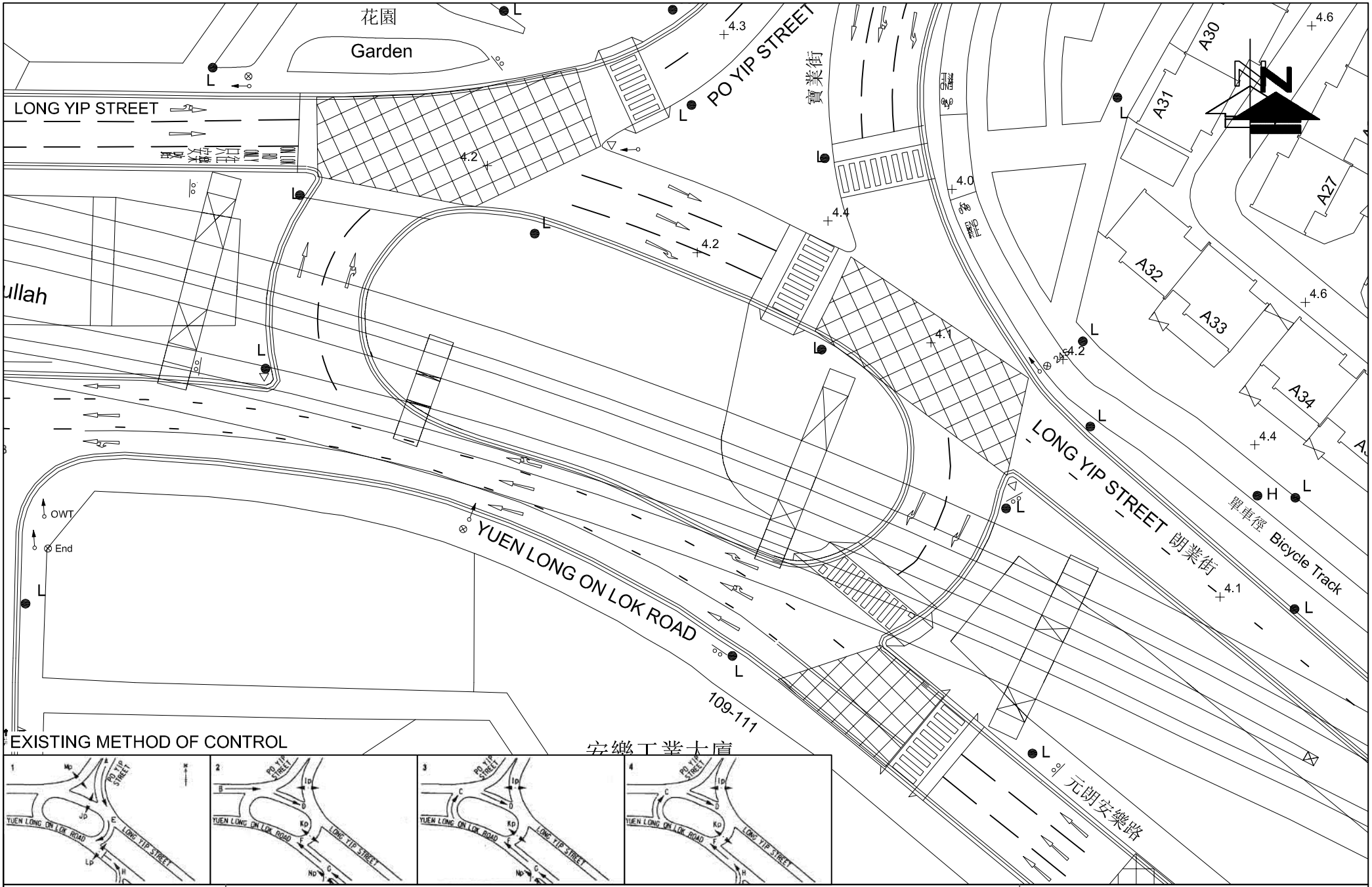


FIGURE NO.: 3.2	PROJECT TITLE: S16 of Lai Sun Yuen Long Center at 21-35 Wang Yip Street East, Yuen Long	CTA Consultants Limited 志達顧問有限公司
PROJECT NO.: 26016HK	DRAWING TITLE: EXISTING JUNCTION LAYOUT OF YUEN LONG ON LOK ROAD / LONG YIP STREET / PO YIP STREET / YUEN LONG TUNG TAI STREET (A)	
SCALE: 1 : 550 @A4 / DATE: 22 APR 2026		

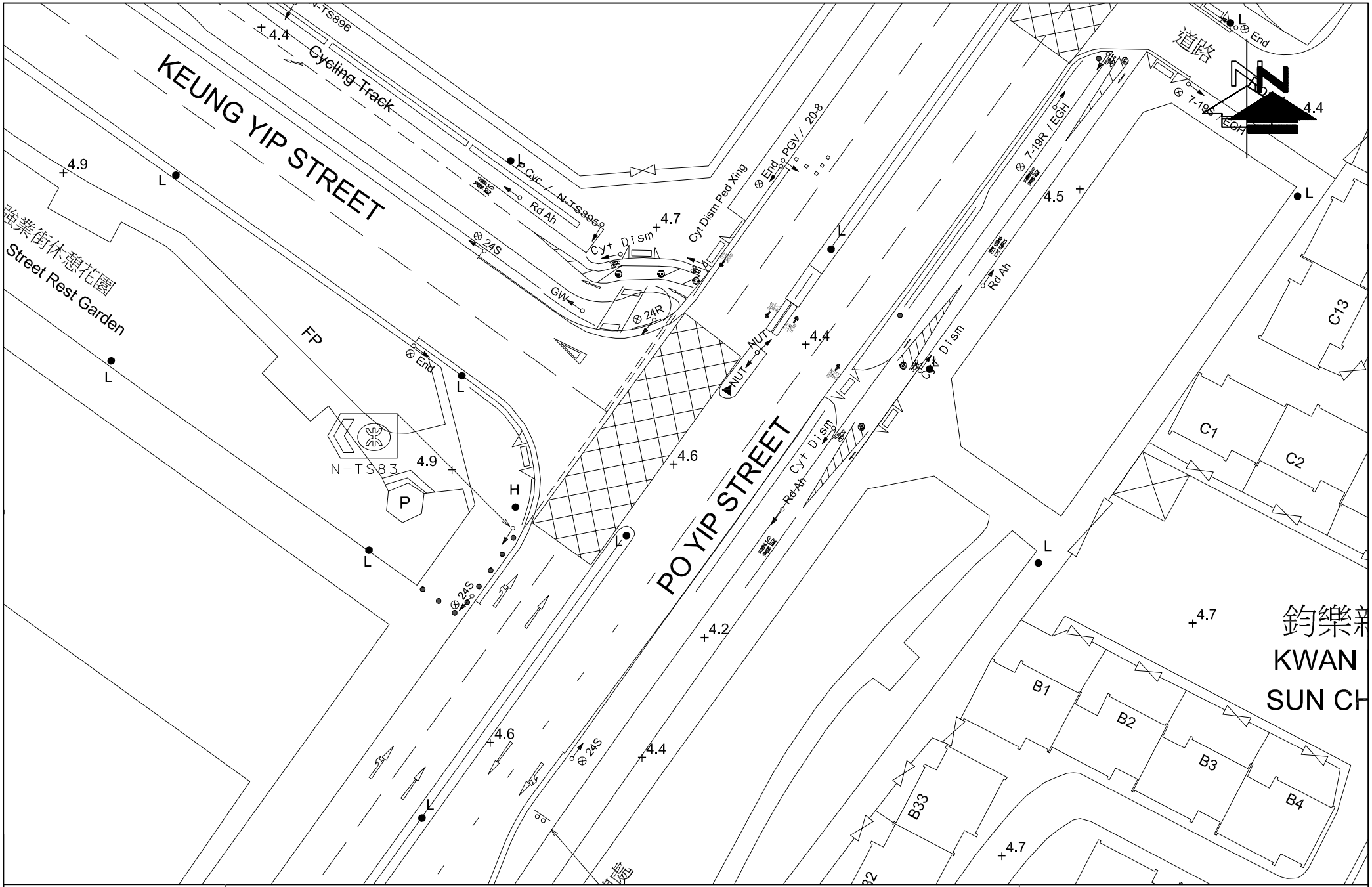


FIGURE NO.: 3.3	PROJECT TITLE: S16 of Lai Sun Yuen Long Center at 21-35 Wang Yip Street East, Yuen Long		CTA Consultants Limited 志達顧問有限公司
PROJECT NO.: 26016HK	DRAWING TITLE: EXISTING JUNCTION LAYOUT OF PO YIP STREET / KEUNG YIP STREET (B)		
SCALE: 1 : 500 @A4	DATE: 27 MAR 2026		

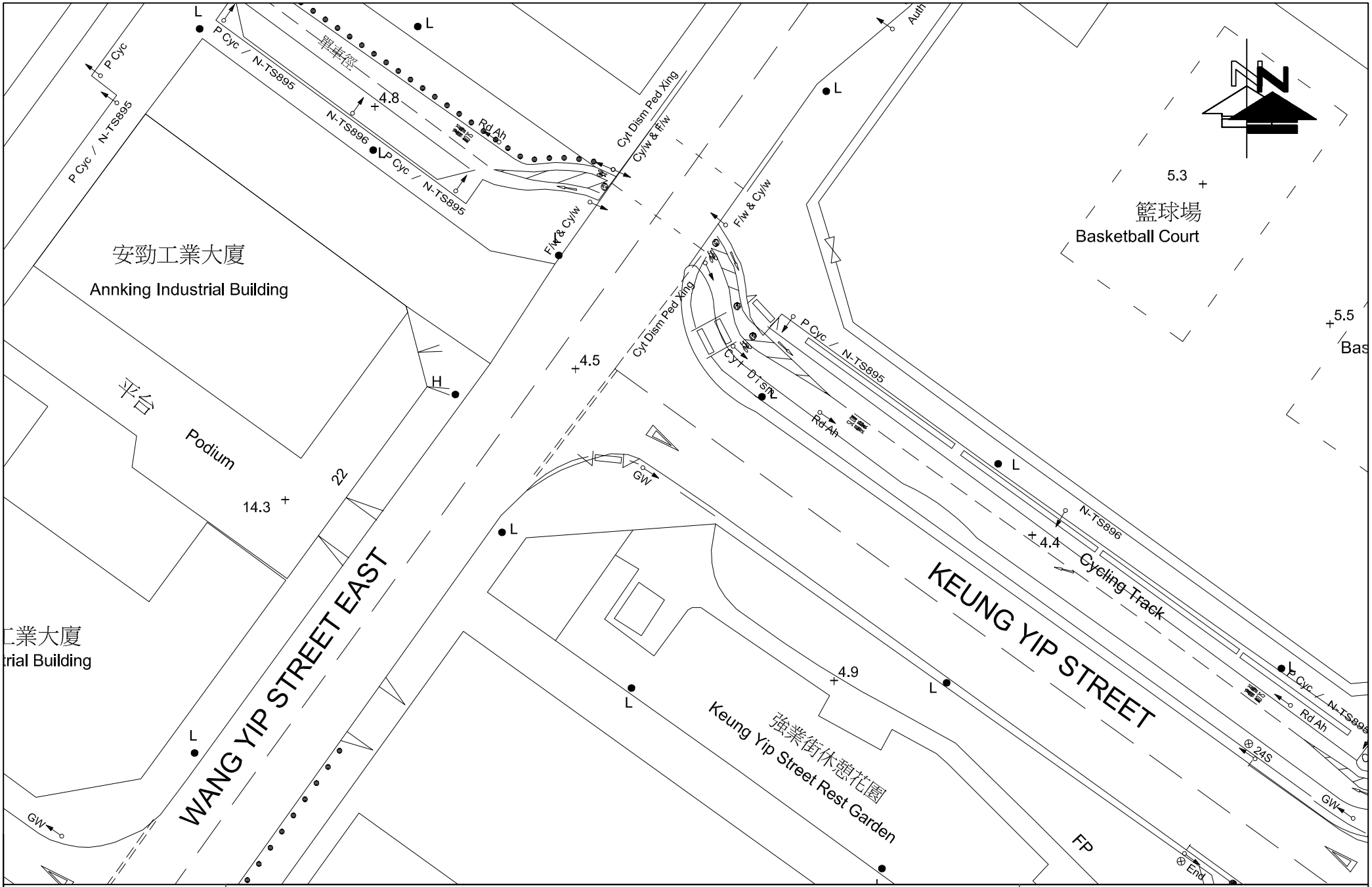


FIGURE NO.: 3.4	PROJECT TITLE: S16 of Lai Sun Yuen Long Center at 21-35 Wang Yip Street East, Yuen Long		CTA Consultants Limited 志達顧問有限公司
PROJECT NO.: 26016HK	DRAWING TITLE: EXISTING JUNCTION LAYOUT OF WANG YIP STREET EAST / KEUNG YIP STREET (C)		
SCALE: 1 : 500 @A4	DATE: 27 MAR 2026		

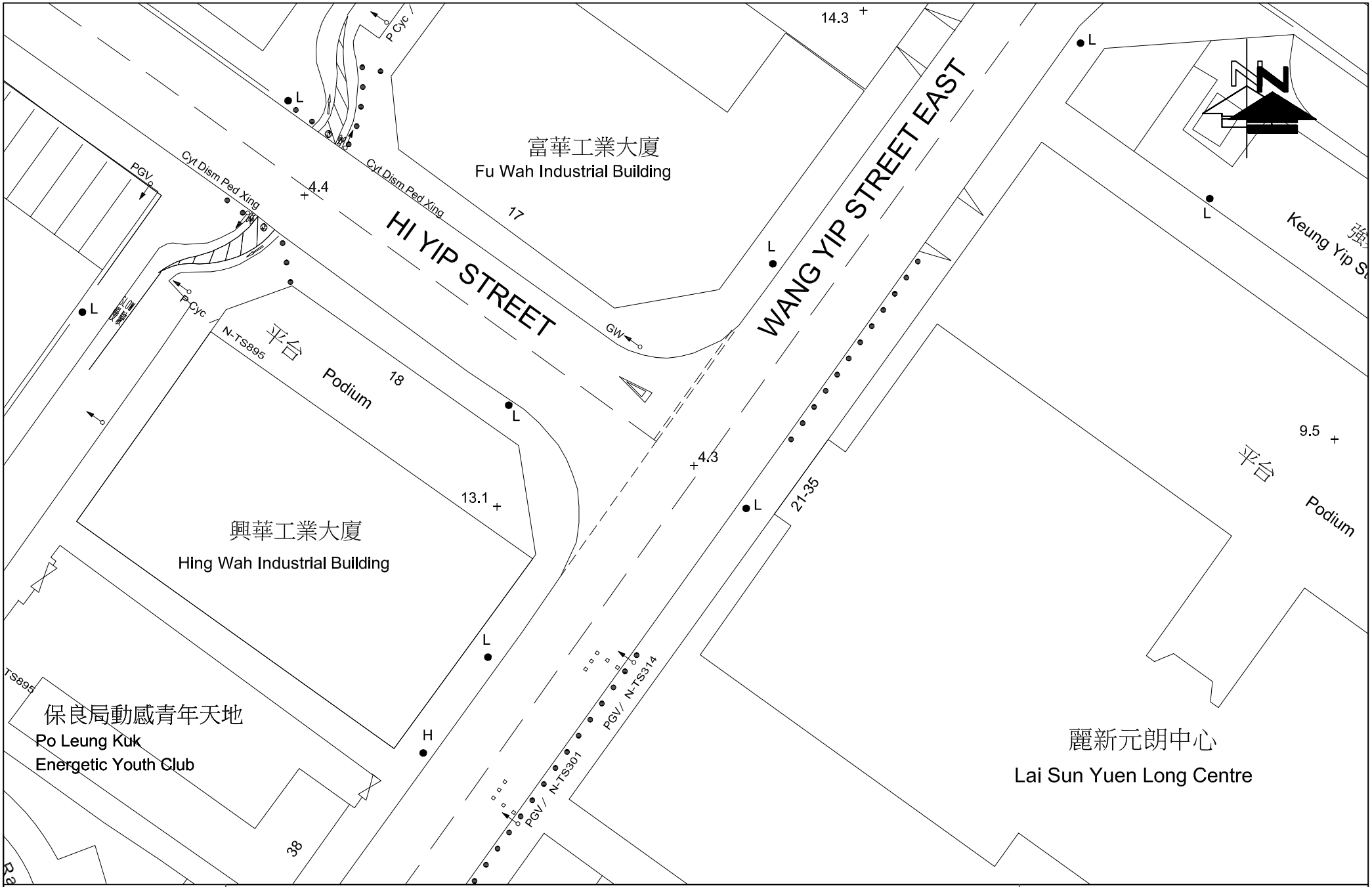


FIGURE NO.: 3.5	PROJECT TITLE: S16 of Lai Sun Yuen Long Center at 21-35 Wang Yip Street East, Yuen Long		CTA Consultants Limited 志達顧問有限公司
PROJECT NO.: 26016HK	DRAWING TITLE: EXISTING JUNCTION LAYOUT OF WANG YIP STREET EAST / HI YIP STREET (D)		
SCALE: 1 : 500 @A4	DATE: 27 MAR 2026		

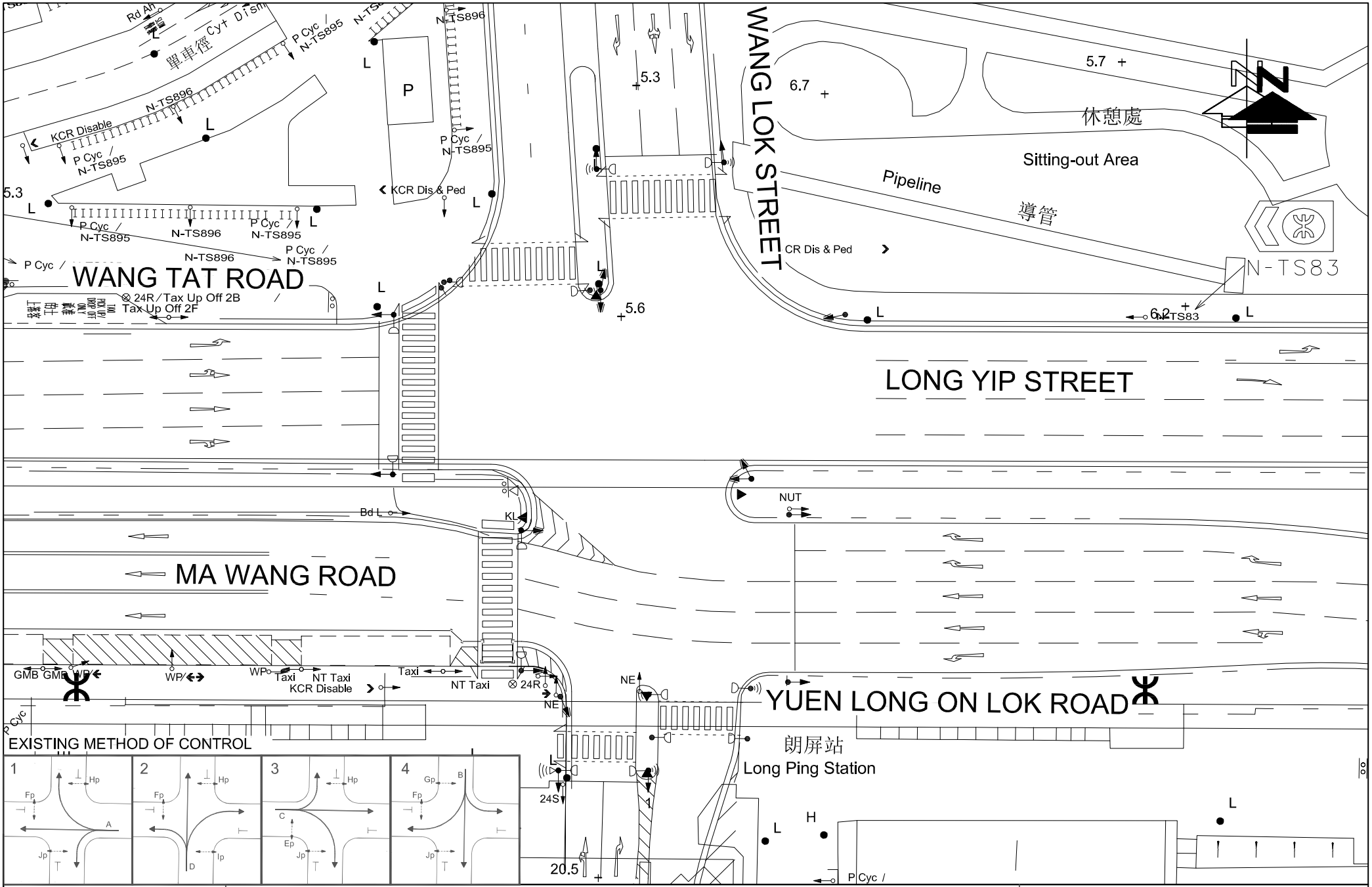


FIGURE NO.: 3.6	PROJECT TITLE: S16 of Lai Sun Yuen Long Center at 21-35 Wang Yip Street East, Yuen Long	CTA Consultants Limited 志達顧問有限公司
PROJECT NO.: 26016HK	DRAWING TITLE: EXISTING JUNCTION LAYOUT OF YUEN LONG ON LOK ROAD / LONG YIP STREET / WANG LOK STREET / WANG TAT ROAD / MA WANG ROAD (E)	
SCALE: 1 : 500 @A4 / DATE: 22 APR 2026		

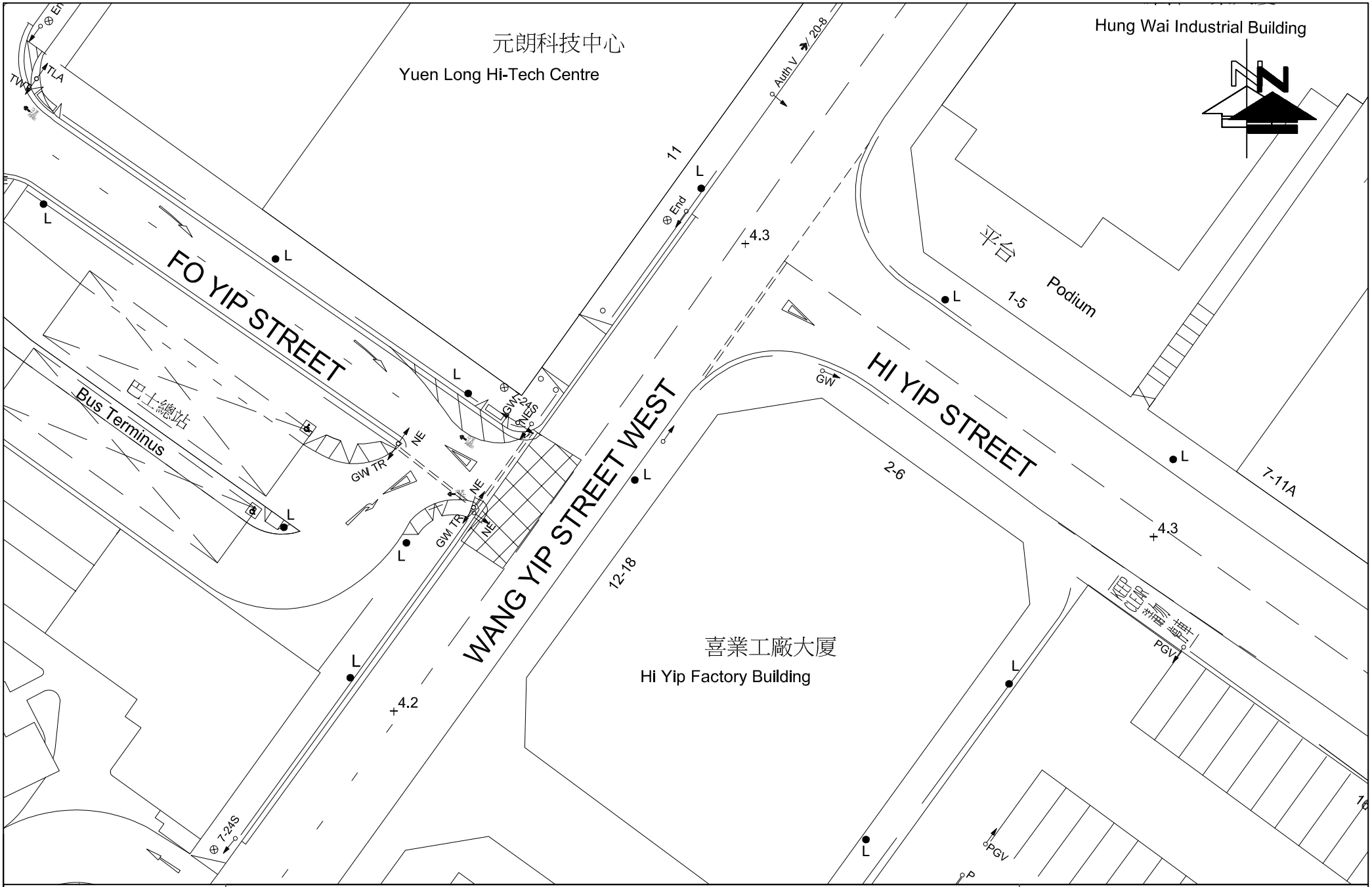


FIGURE NO.: 3.7	PROJECT TITLE: S16 of Lai Sun Yuen Long Center at 21-35 Wang Yip Street East, Yuen Long		CTA Consultants Limited 志達顧問有限公司
PROJECT NO.: 26016HK	DRAWING TITLE: EXISTING JUNCTION LAYOUT OF WANG YIP STREET WEST / HI YIP STREET / FO YIP STREET (F)		
SCALE: 1 : 500 @A4	DATE: 06 JUL 2026		

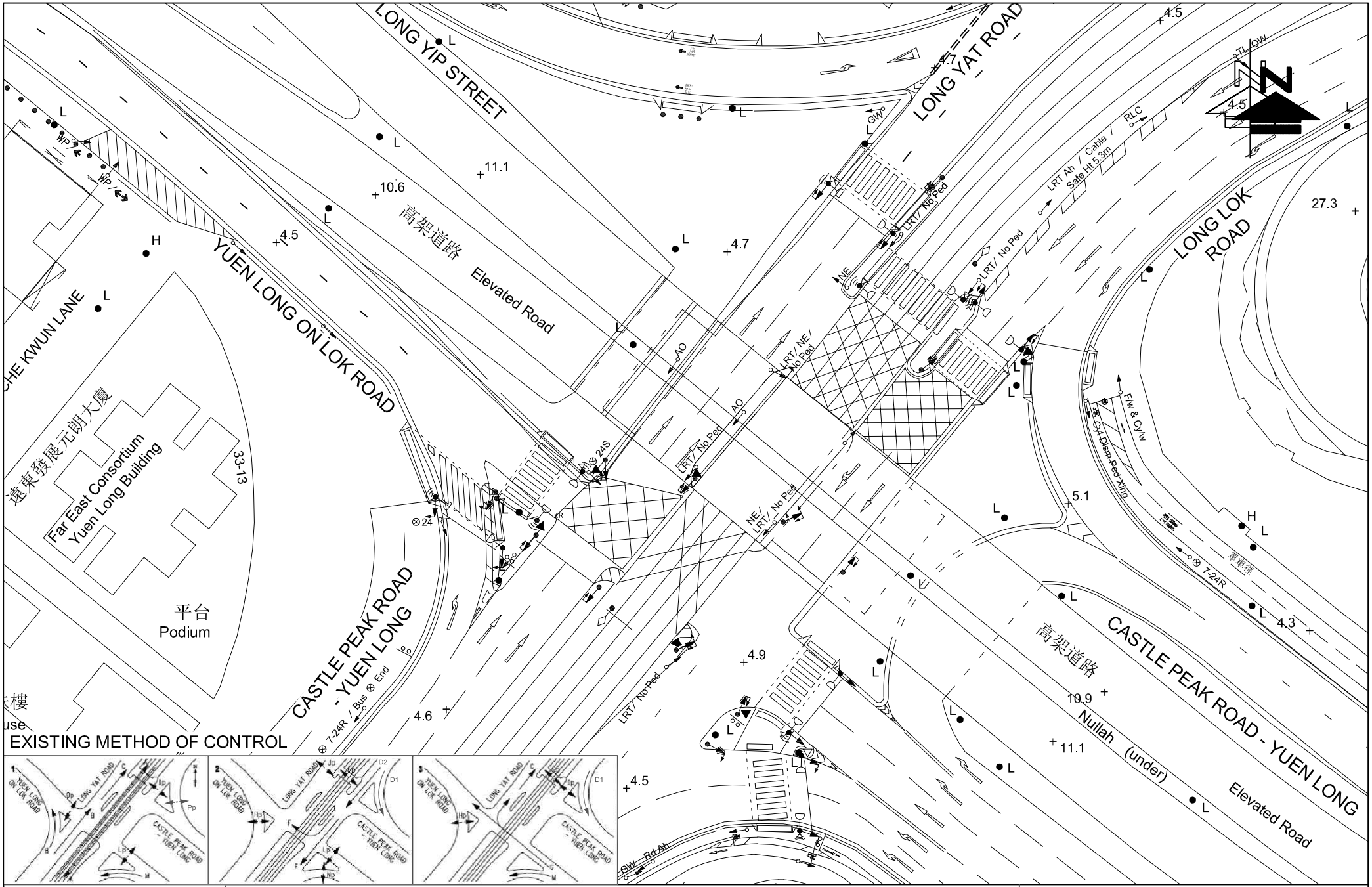


FIGURE NO.: 3.8	PROJECT TITLE: S16 of Lai Sun Yuen Long Center at 21-35 Wang Yip Street East, Yuen Long	CTA Consultants Limited 志達顧問有限公司
PROJECT NO.: 26016HK	DRAWING TITLE: EXISTING JUNCTION LAYOUT OF CASTLE PEAK ROAD - YUEN LONG / YUEN LONG ON LOK ROAD / LONG YIP STREET / LONG YAT ROAD / LONG LOK ROAD (G)	
SCALE: 1 : 550 @A4 / DATE: 06 JUL 2026		

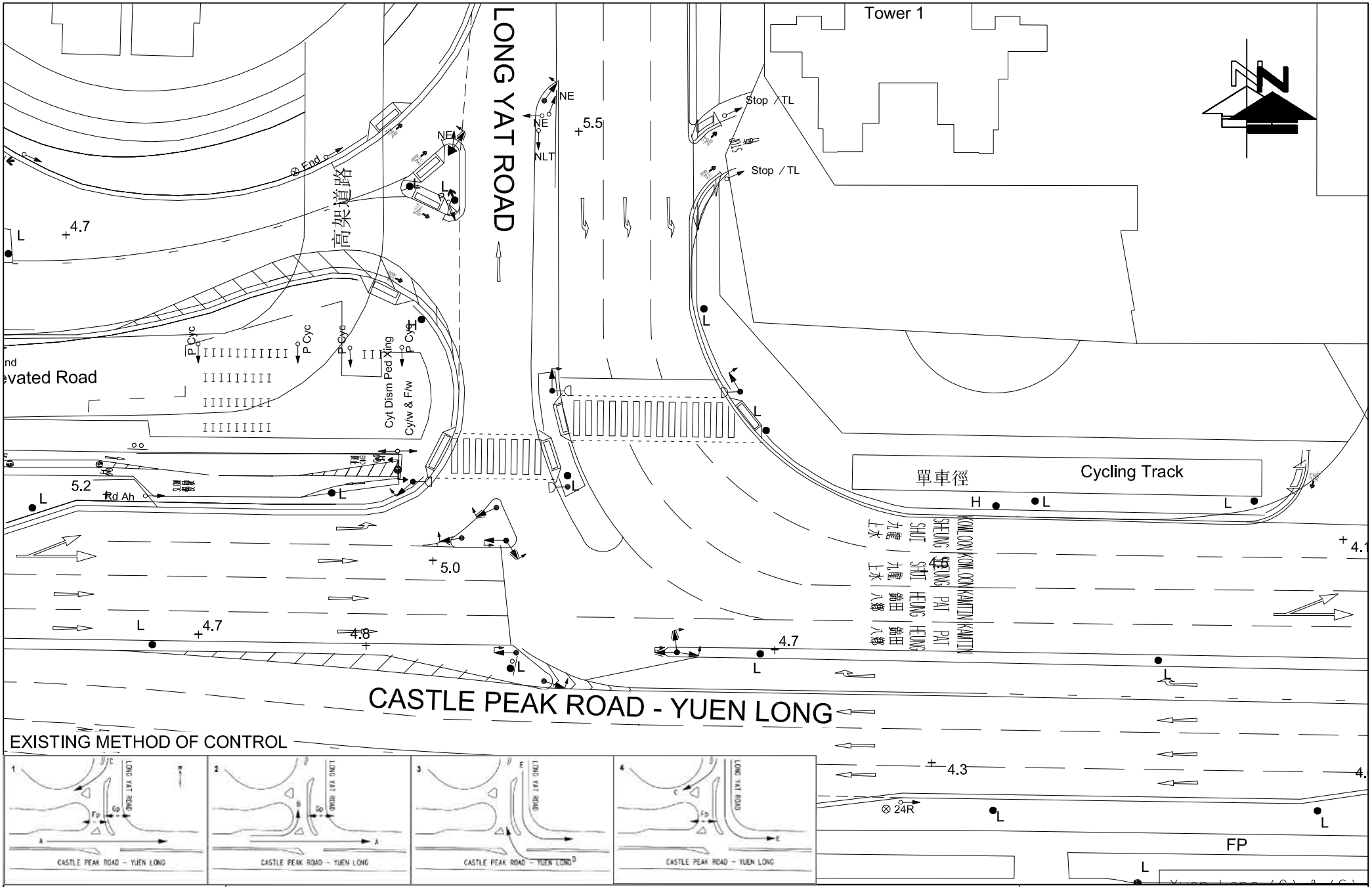


FIGURE NO.: 3.9	PROJECT TITLE: S16 of Lai Sun Yuen Long Center at 21-35 Wang Yip Street East, Yuen Long	CTA Consultants Limited 志達顧問有限公司
PROJECT NO.: 26016HK	DRAWING TITLE: EXISTING JUNCTION LAYOUT OF CASTLE PEAK ROAD - YUEN LONG / LONG YAT ROAD (H)	
SCALE: 1 : 500 @A4 / DATE: 06 JUL 2026		

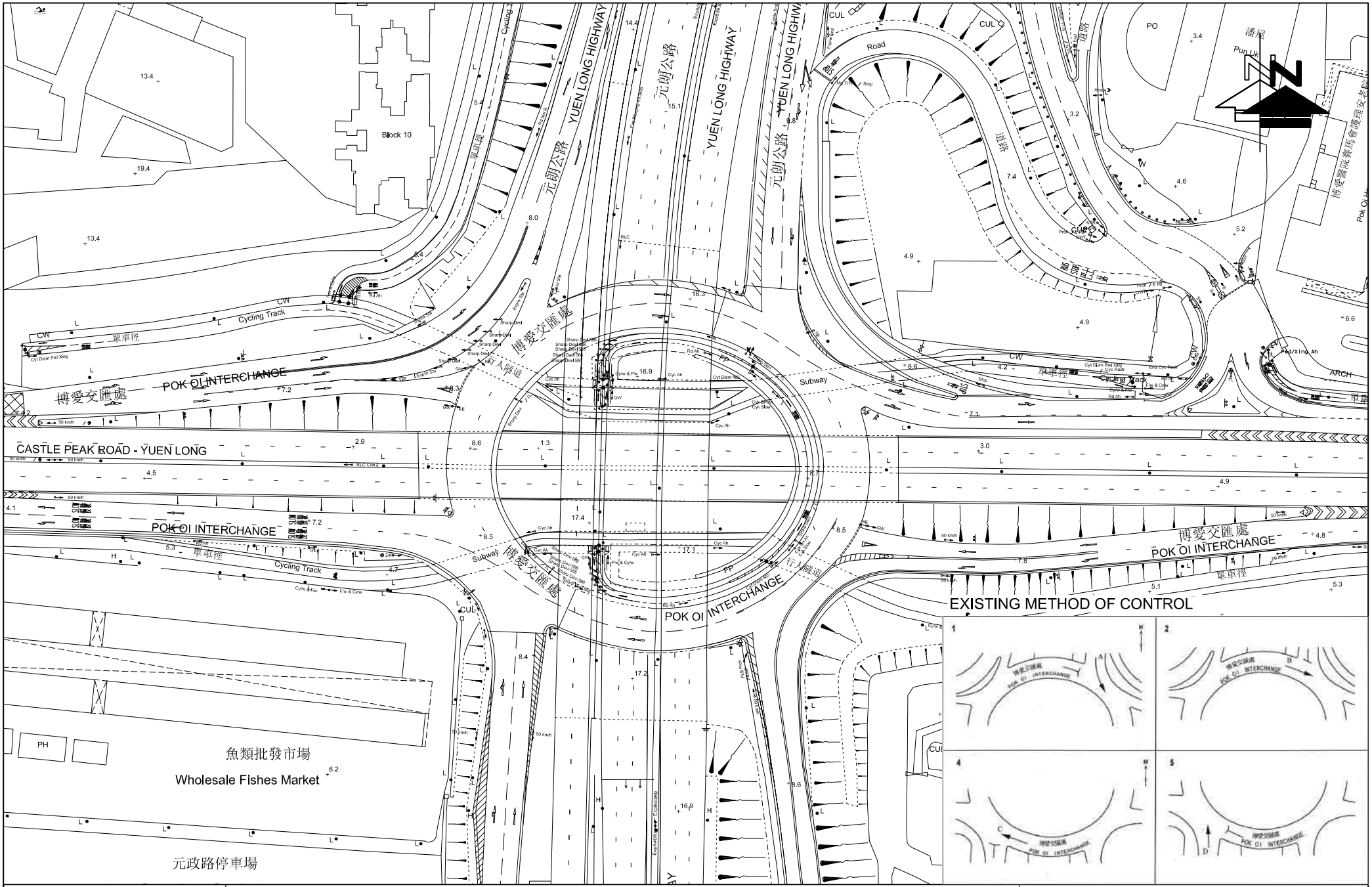
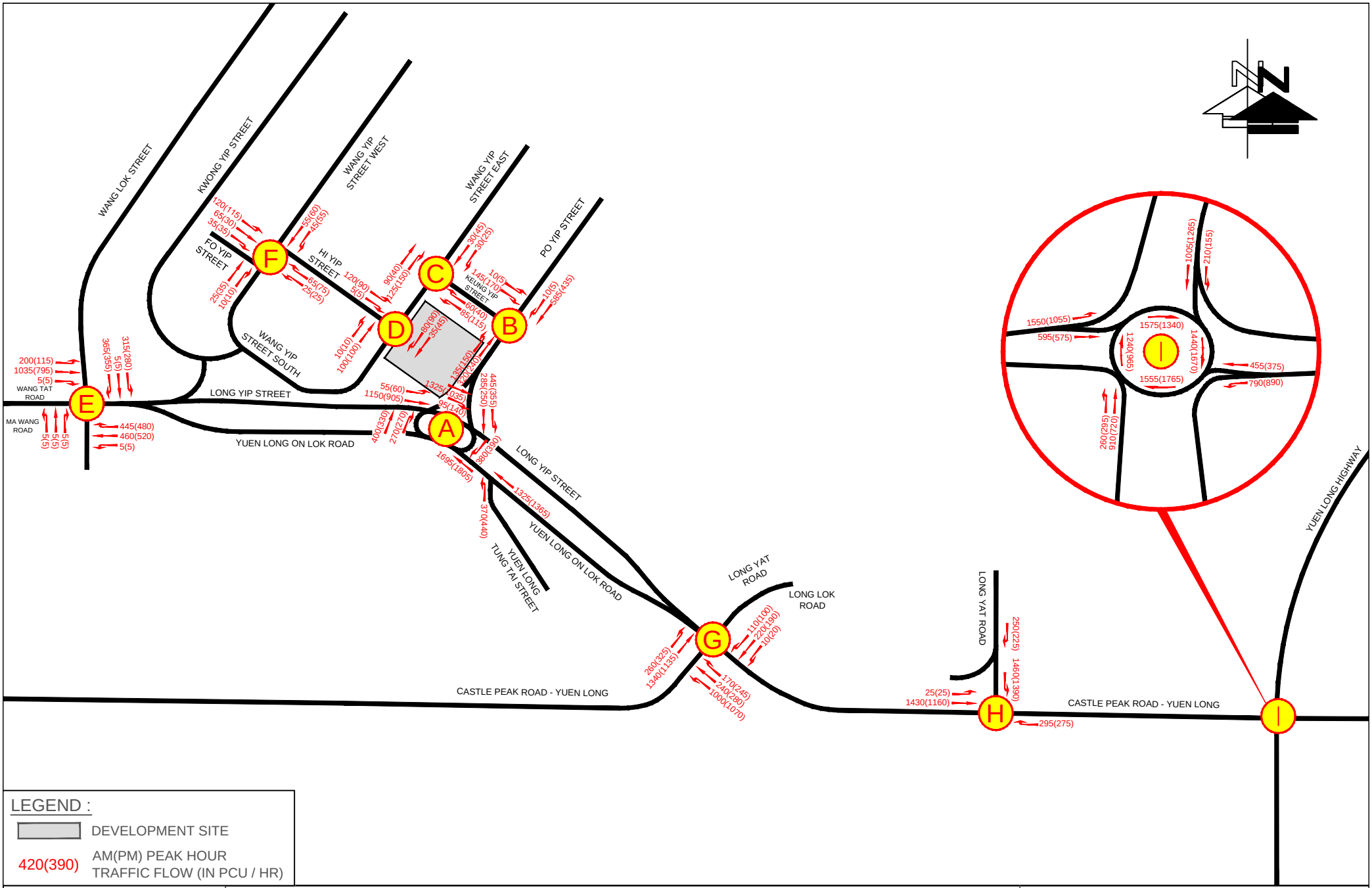


FIGURE NO.: 3.10	PROJECT TITLE: S16 of Lai Sun Yuen Long Center at 21-35 Wang Yip Street East, Yuen Long	CTA Consultants Limited 志達顧問有限公司
PROJECT NO.: 26016HK	DRAWING TITLE: EXISTING JUNCTION LAYOUT OF POK OI INTERCHAHGE (I)	
SCALE: 1 : 1200 @A4 / DATE: 06 JUL 2026		



LEGEND :

DEVELOPMENT SITE

420(390) AM(PM) PEAK HOUR TRAFFIC FLOW (IN PCU / HR)

FIGURE NO.: 3.11 (REV. A)	PROJECT TITLE: S16 of Lai Sun Yuen Long Center at 21-35 Wang Yip Street East, Yuen Long	CTA Consultants Limited 志達顧問有限公司
PROJECT NO.: 26016HK	DRAWING TITLE: 2026 OBSERVED TRAFFIC FLOW	
SCALE: N.T.S. @A4 / DATE: 06 JUL 2026		

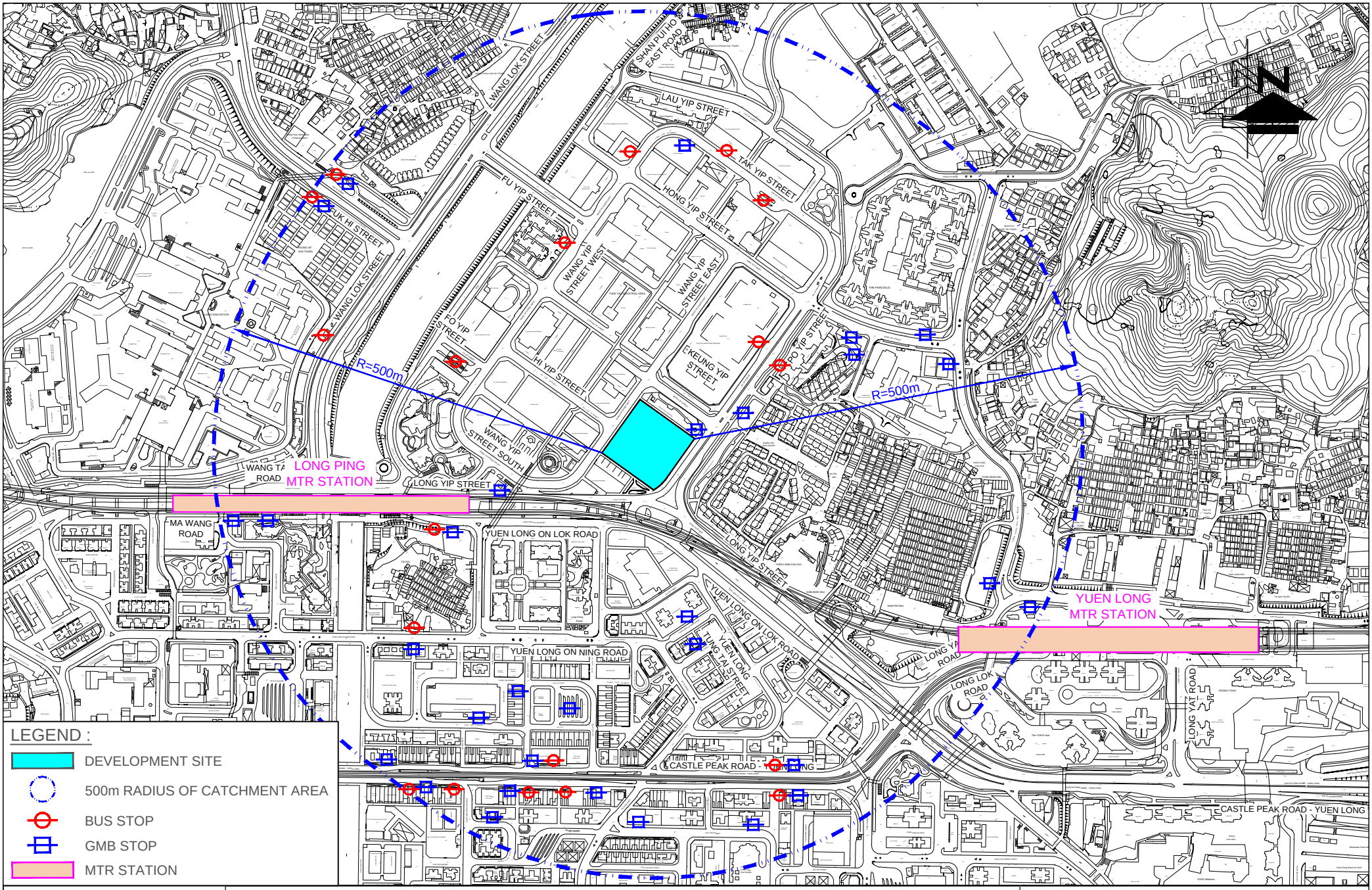
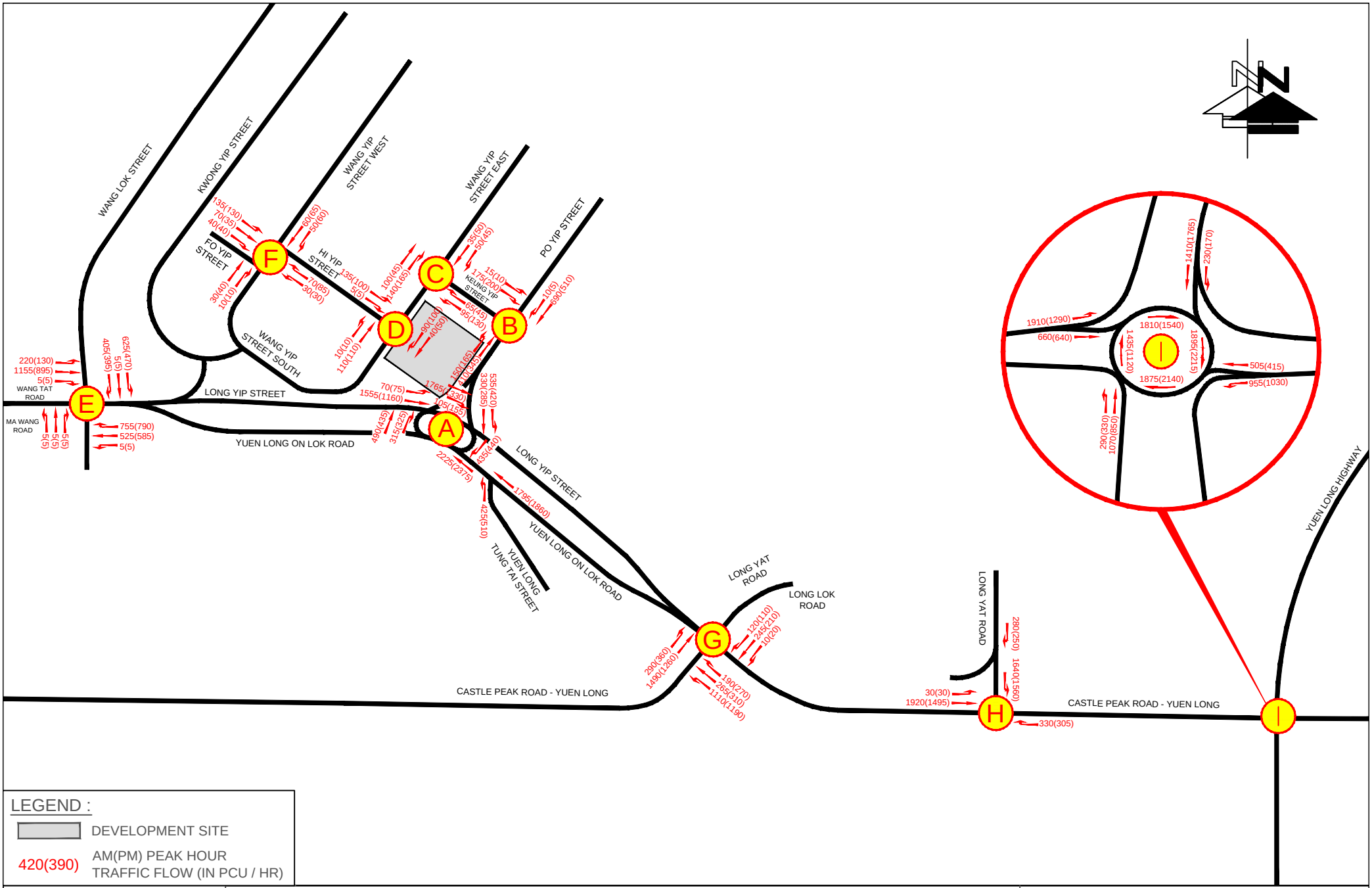


FIGURE NO.: 3.12	PROJECT TITLE: S16 of Lai Sun Yuen Long Center at 21-35 Wang Yip Street East, Yuen Long	CTA Consultants Limited 志達顧問有限公司
PROJECT NO.: 26016HK	DRAWING TITLE: PUBLIC TRANSPORT SERVICES IN THE VICINITY	
SCALE: 1 : 6400 @A4 / DATE: 6 JUL 2026		

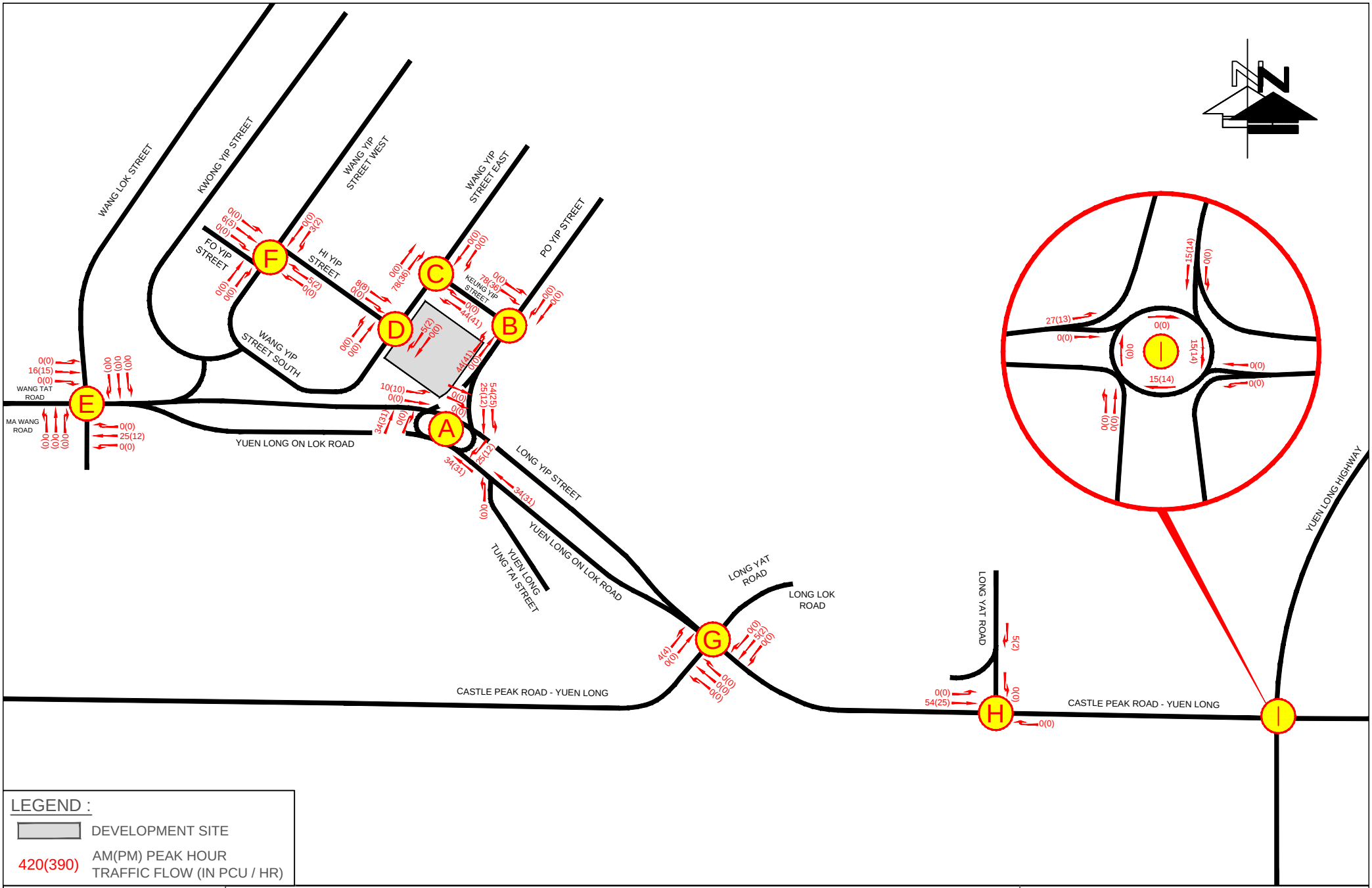


LEGEND :

DEVELOPMENT SITE

420(390) AM(PM) PEAK HOUR TRAFFIC FLOW (IN PCU / HR)

FIGURE NO.: 4.1 (REV. A)		PROJECT TITLE: S16 of Lai Sun Yuen Long Center at 21-35 Wang Yip Street East, Yuen Long	CTA Consultants Limited 志達顧問有限公司
PROJECT NO.: 26016HK		DRAWING TITLE: 2033 REFERENCE TRAFFIC FLOW (WITHOUT PROPOSED DEVELOPMENT)	
SCALE: N.T.S. @A4	DATE: 06 JUL 2026		



LEGEND :

DEVELOPMENT SITE

420(390) AM(PM) PEAK HOUR TRAFFIC FLOW (IN PCU / HR)

FIGURE NO.: 4.2 (REV. A)		PROJECT TITLE: S16 of Lai Sun Yuen Long Center at 21-35 Wang Yip Street East, Yuen Long	CTA Consultants Limited 志達顧問有限公司
PROJECT NO.: 26016HK		DRAWING TITLE: 2033 DEVELOPMENT TRAFFIC FLOW	
SCALE: N.T.S. @A4	DATE: 09 JUL 2026		

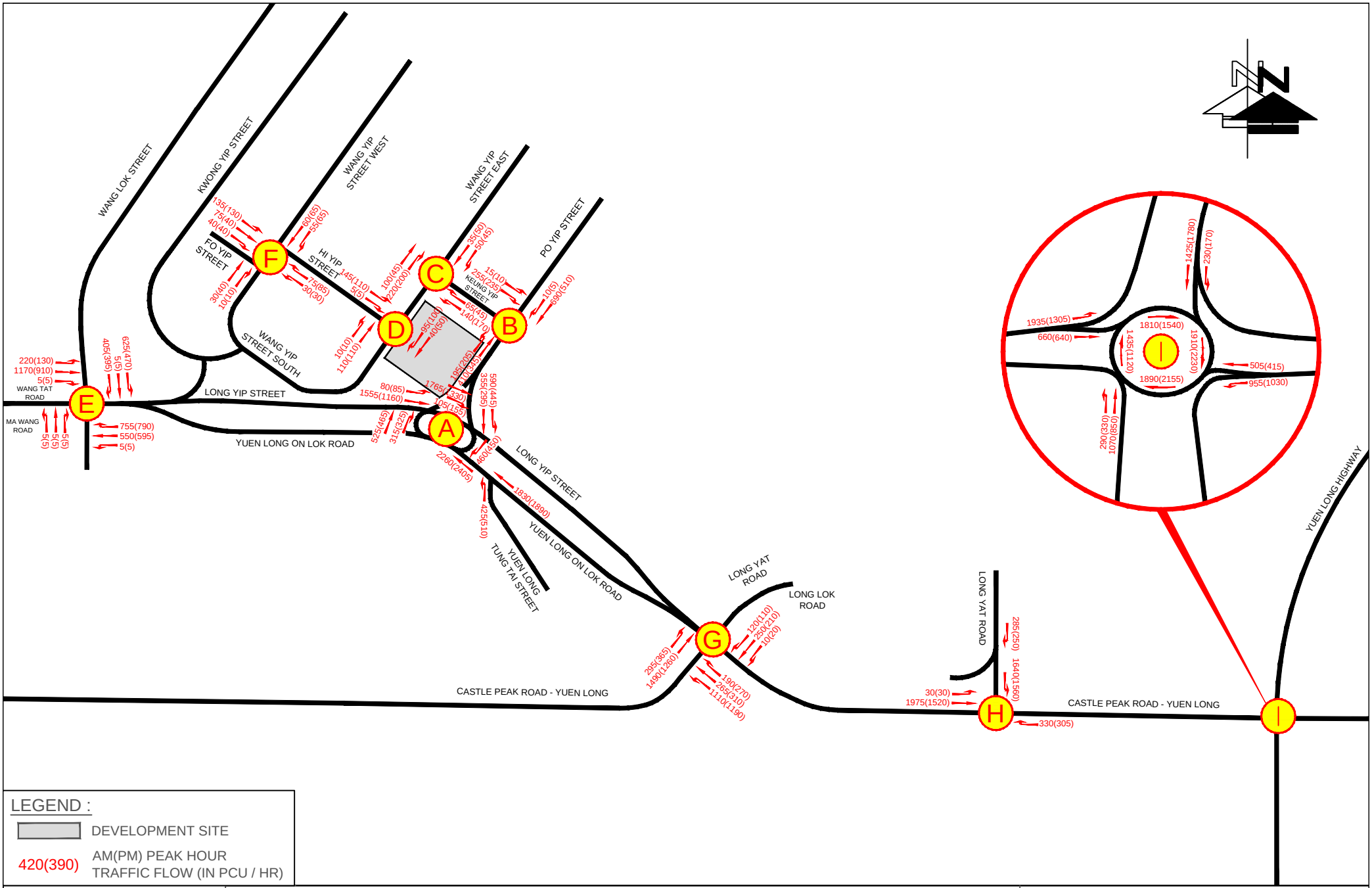
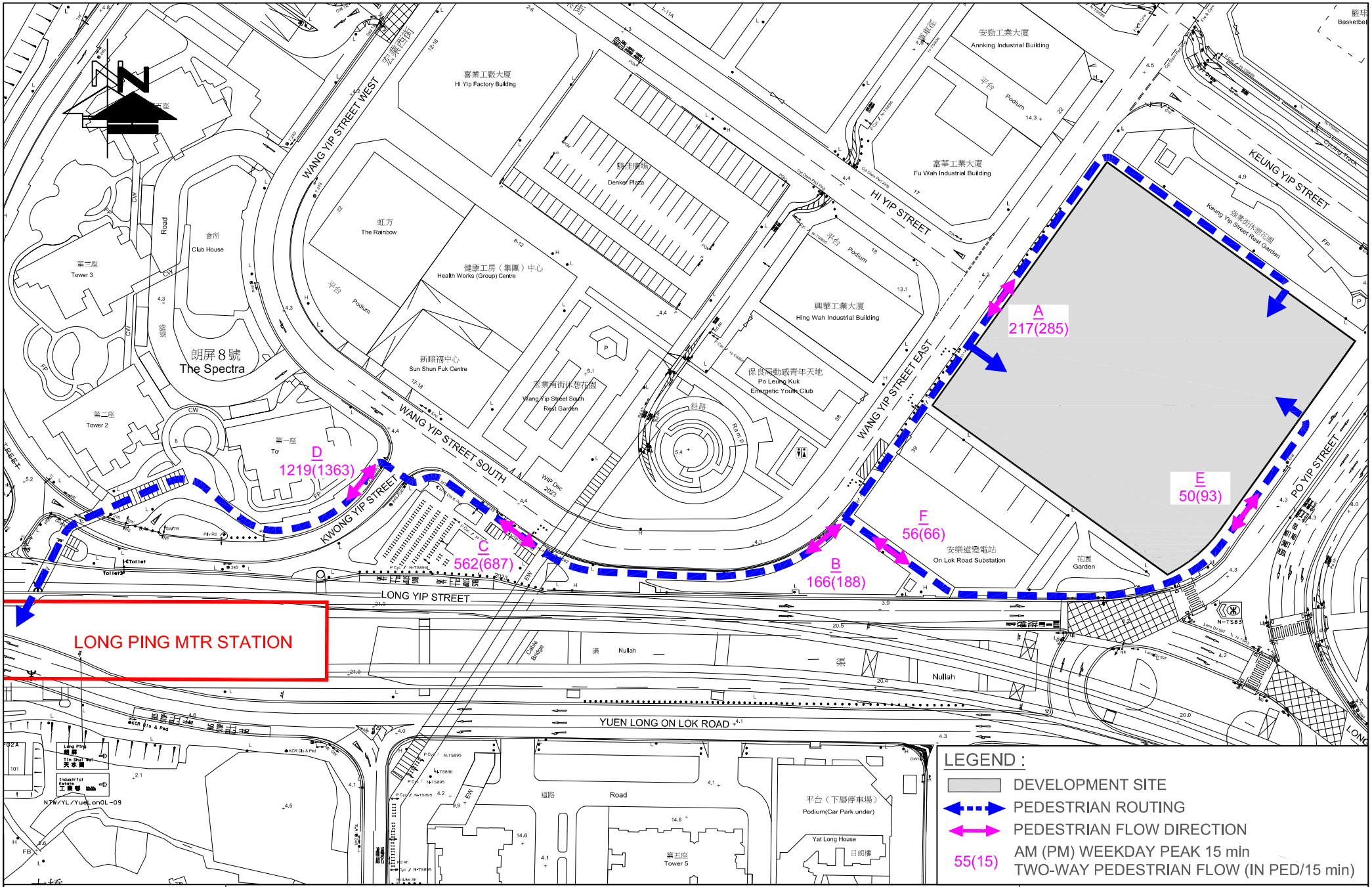


FIGURE NO.: 4.3 (REV. A)		PROJECT TITLE: S16 of Lai Sun Yuen Long Center at 21-35 Wang Yip Street East, Yuen Long	CTA Consultants Limited 志達顧問有限公司
PROJECT NO.: 26016HK		DRAWING TITLE: 2033 DESIGN TRAFFIC FLOW (WITH PROPOSED DEVELOPMENT)	
SCALE: N.T.S. @A4	DATE: 09 JUL 2026		



LEGEND :

- DEVELOPMENT SITE
- PEDESTRIAN ROUTING
- PEDESTRIAN FLOW DIRECTION
- 55(15) AM (PM) WEEKDAY PEAK 15 min TWO-WAY PEDESTRIAN FLOW (IN PED/15 min)

FIGURE NO.: 5.1(REV A)	PROJECT TITLE: S16 of Lai Sun Yuen Long Center at 21-35 Wang Yip Street East, Yuen Long	CTA Consultants Limited 志達顧問有限公司
PROJECT NO.: 26016HK	DRAWING TITLE: 2026 OBSERVED PEDESTRIAN FLOWS	
SCALE: 1 : 1400 @A4 / DATE: 06 JUL 2026		

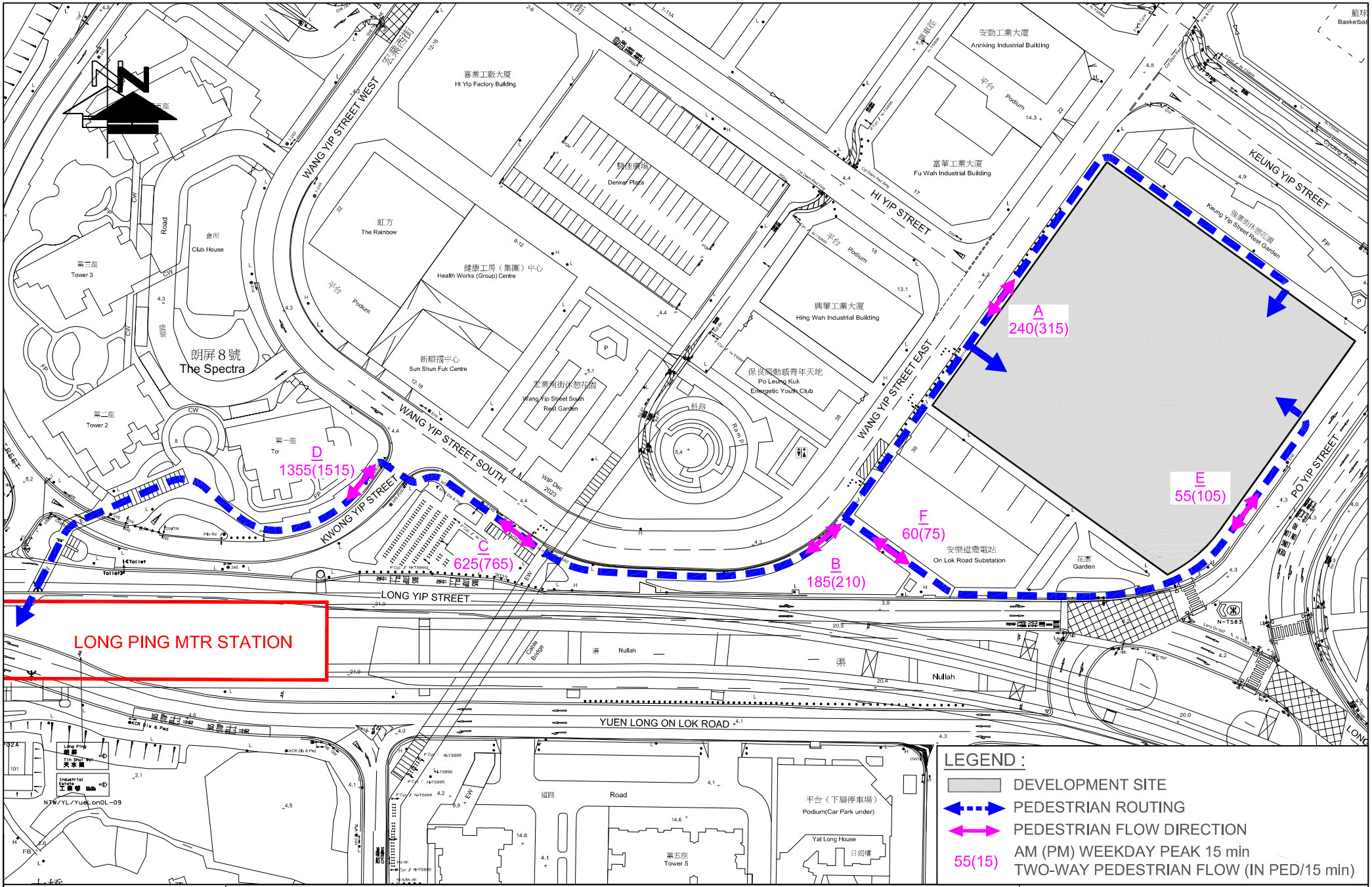
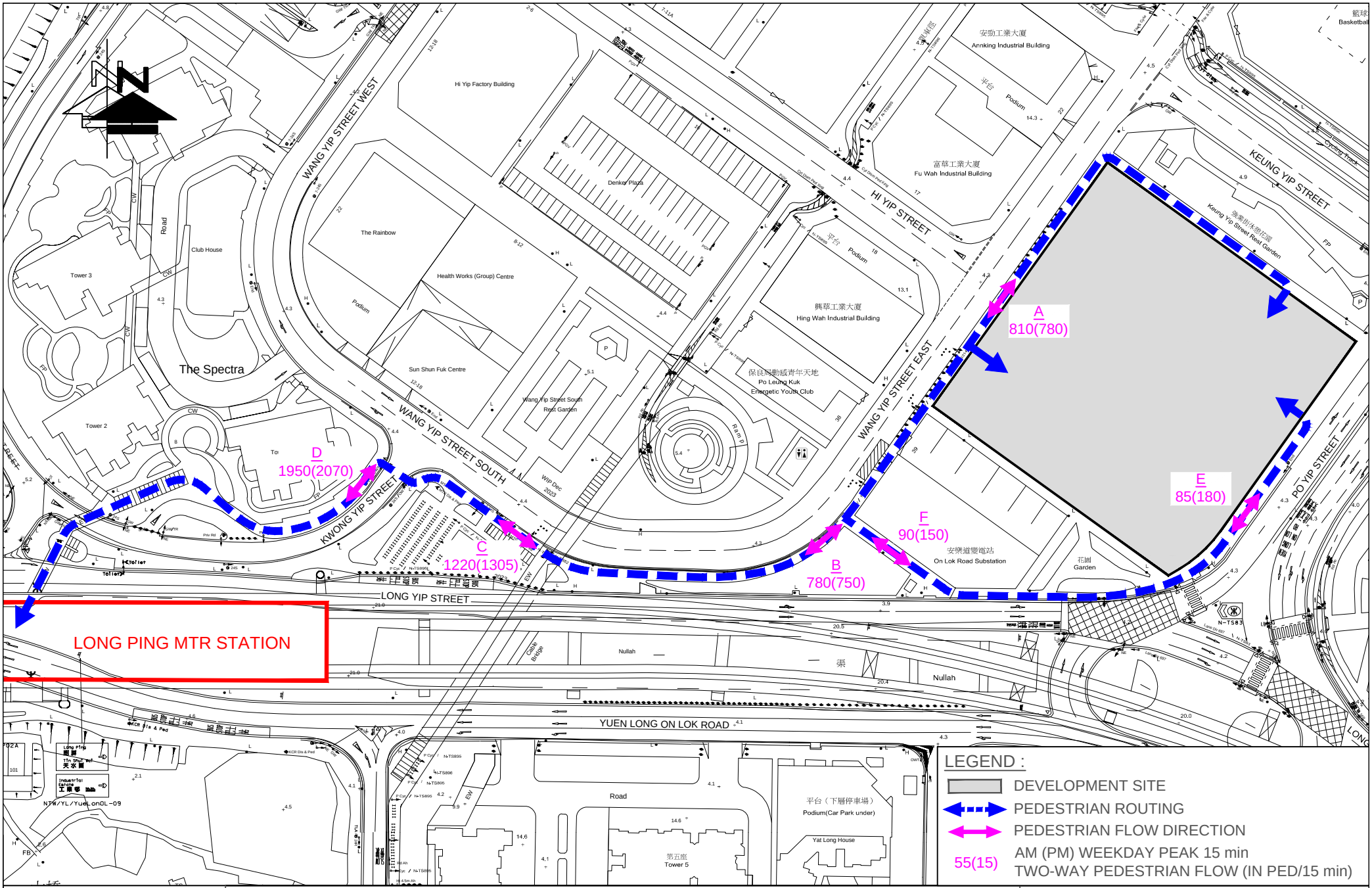


FIGURE NO.: 5.2(REV A)	PROJECT TITLE: S16 of Lai Sun Yuen Long Center at 21-35 Wang Yip Street East, Yuen Long	CTA Consultants Limited 志達顧問有限公司
PROJECT NO.: 26016HK	DRAWING TITLE: 2033 REFERENCE PEDESTRIAN FLOWS	
SCALE: 1 : 1400 @A4 / DATE: 06 JUL 2026		



LEGEND :

- DEVELOPMENT SITE
- PEDESTRIAN ROUTING
- PEDESTRIAN FLOW DIRECTION
- 55(15) AM (PM) WEEKDAY PEAK 15 min TWO-WAY PEDESTRIAN FLOW (IN PED/15 min)

FIGURE NO.: 5.3(REV A)	PROJECT TITLE: S16 of Lai Sun Yuen Long Center at 21-35 Wang Yip Street East, Yuen Long	CTA Consultants Limited 志達顧問有限公司
PROJECT NO.: 26016HK	DRAWING TITLE: 2033 DESIGN PEDESTRIAN FLOWS	
SCALE: 1 : 1400 @A4 / DATE: 09 JUL 2026		

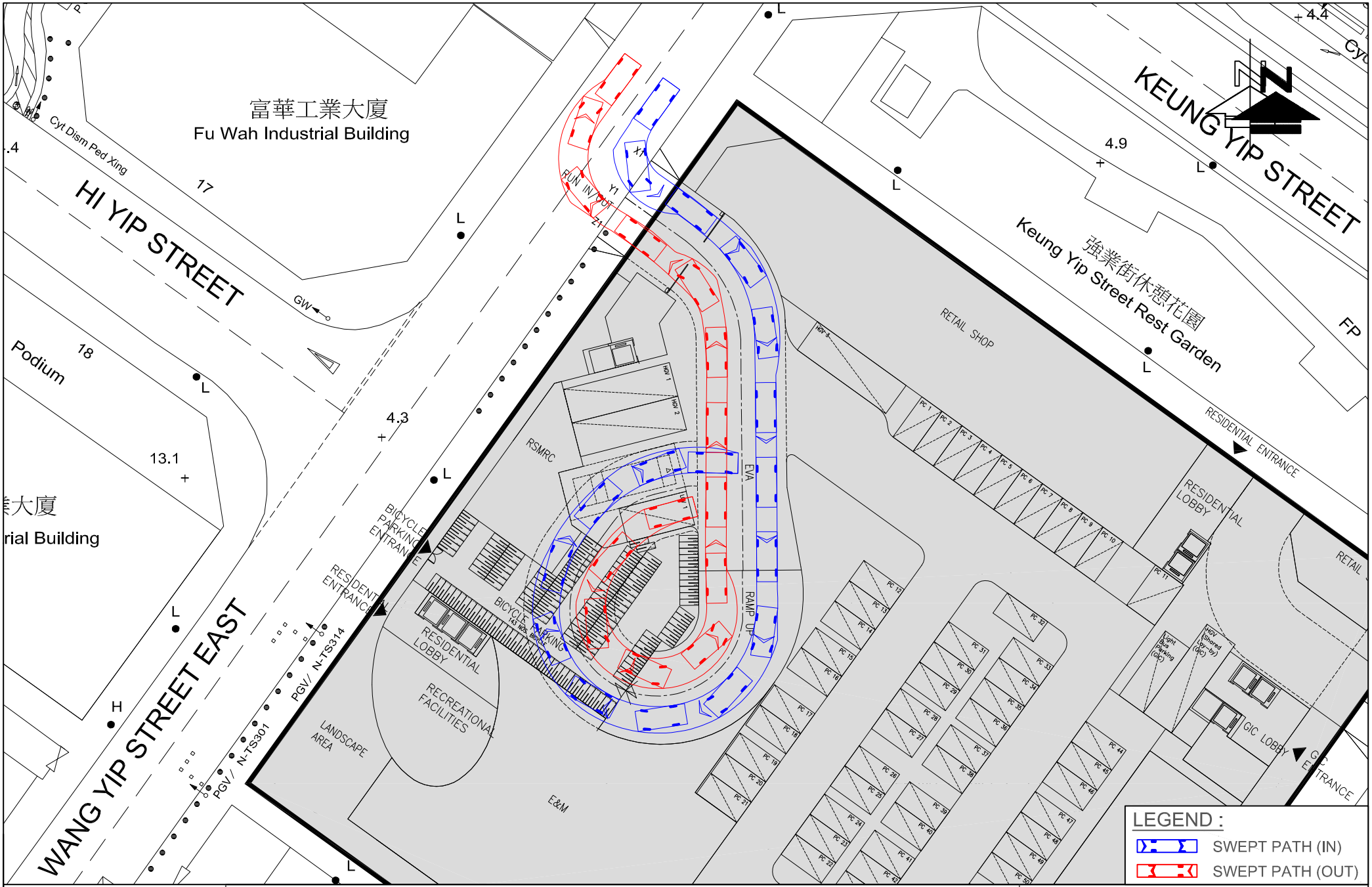


FIGURE NO.: SP-01	PROJECT TITLE: S16 of Lai Sun Yuen Long Center at 21-35 Wang Yip Street East, Yuen Long	CTA Consultants Limited 志達顧問有限公司
PROJECT NO.: 26016HK	DRAWING TITLE: SWEPT PATH ANALYSIS OF PRIVATE VEHICLE AT G/F	
SCALE: 1 : 500 @A4 / DATE: 10 JUL 2026		

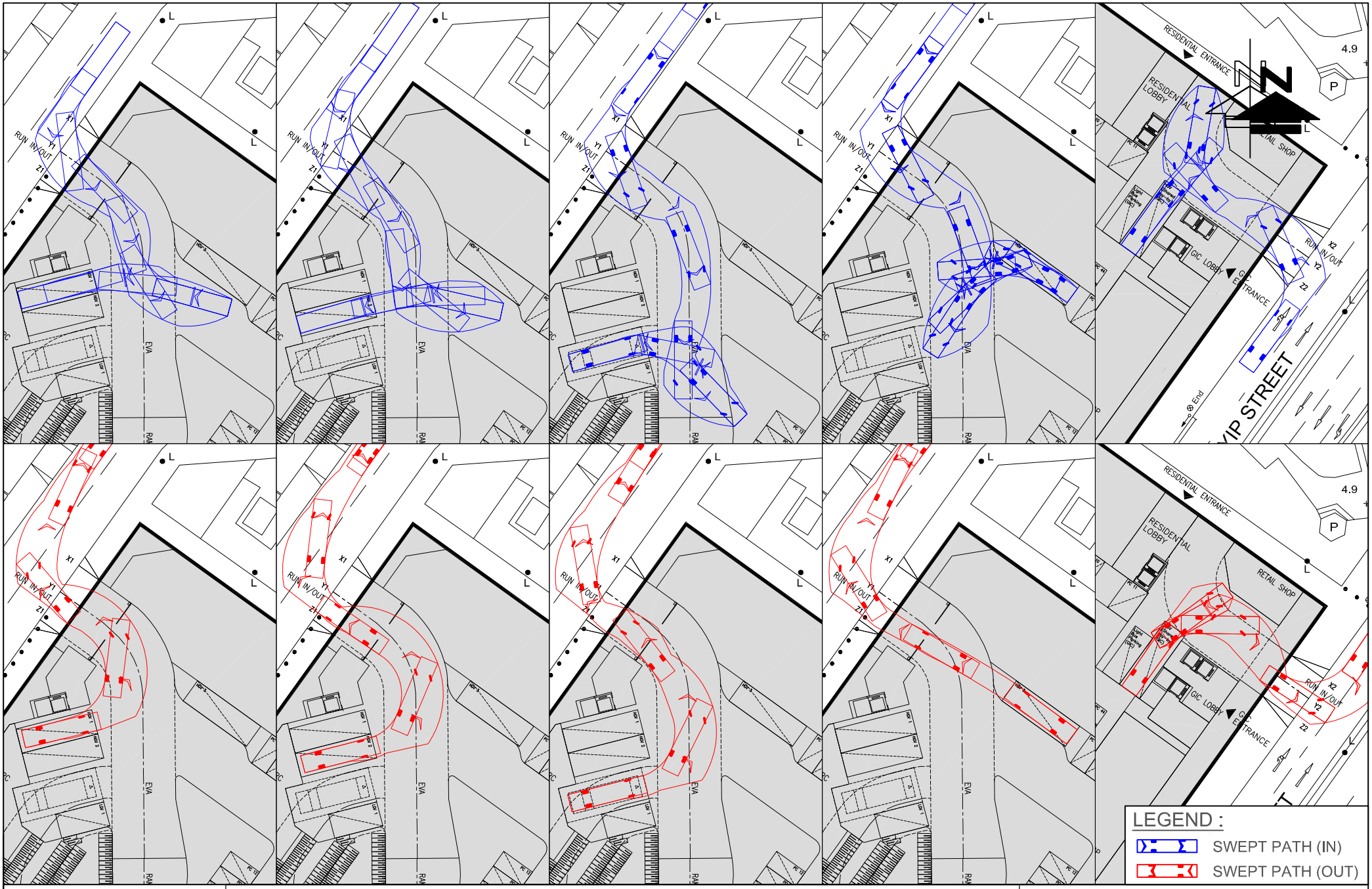


FIGURE NO.: SP-02	PROJECT TITLE: S16 of Lai Sun Yuen Long Center at 21-35 Wang Yip Street East, Yuen Long	CTA Consultants Limited 志達顧問有限公司
PROJECT NO.: 26016HK	DRAWING TITLE: SWEPT PATH ANALYSIS OF 11m VEHICLE AT G/F	
SCALE: 1 : 700 @A4 / DATE: 10 JUL 2026		

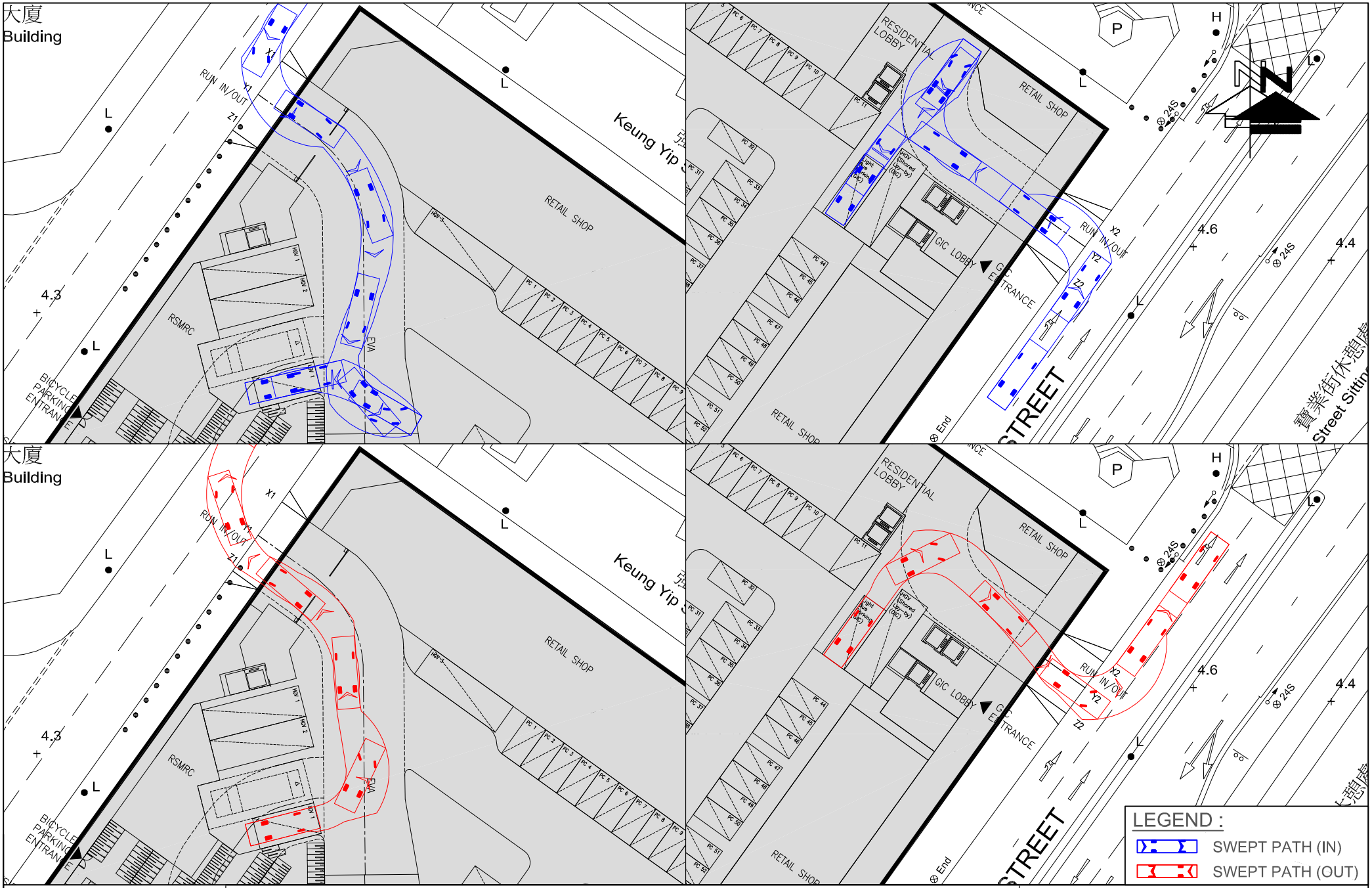


FIGURE NO.: SP-03	PROJECT TITLE: S16 of Lai Sun Yuen Long Center at 21-35 Wang Yip Street East, Yuen Long	CTA Consultants Limited 志達顧問有限公司
PROJECT NO.: 26016HK	DRAWING TITLE: SWEPT PATH ANALYSIS OF 8m VEHICLE AT G/F	
SCALE: 1 : 650 @A4 / DATE: 10 JUL 2026		

Appendix A

Junction Calculation Sheets

TRAFFIC SIGNALS CALCULATION Job No: 26016HK **CTA Consultants Ltd.**

Junction: **Yuen Long On Lok Road / Long Yip Street / Po Yip Street / Yuen Long Tung Tai Street (Jn A)**

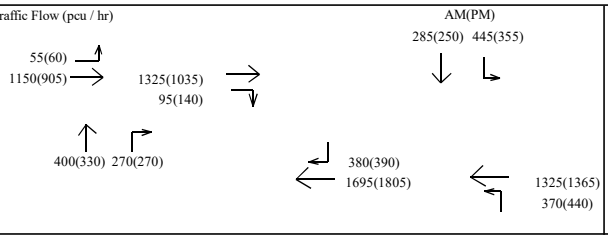
Description: **2026 Observed Traffic Flows**

Approach	Direction	Movement notation	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Nearside 0/1	Pro. Turning (%) A.M.	Pro. Turning (%) P.M.	Saturation Flow (pcu/hr)	Total Saturation Flow (pcu/hr)	Revised Saturation Flow (pcu/hr) A.M.	Revised Saturation Flow (pcu/hr) P.M.	Total Revised Saturation Flow (pcu/hr) A.M.	Total Revised Saturation Flow (pcu/hr) P.M.	A.M. Flow (pcu/hr)	A.M. y Value	A.M. Critical y	P.M. Flow (pcu/hr)	P.M. y Value	P.M. Critical y
Po Yip Street	S		A	1	3.5	35	0	1	100%	100%	1965	6175	1885	1885	6020	6025	229	0.121	0.121	189	0.100	
	S		A	1	3.5	35	0	0	88%	81%	2105	0	2030	2035	0	0	246	0.121		204	0.100	
	S		A	1	3.5	0	0	0	0%	0%	2105	0	2105	2105	0	0	255	0.121		211	0.100	
Po Yip Street	S		E	1	3.5	0	15	0	100%	100%	2105	4210	1915	1915	3830	3830	190	0.099		195	0.102	0.102
	S		E	1	3.5	0	15	0	100%	100%	2105	0	1915	1915	0	0	190	0.099		195	0.102	
Long Yip Street	E		B	2	3.3	40	0	0	14%	19%	2085	6255	2075	2070	6245	6240	400	0.193	0.193	320	0.155	
	E		B	2	3.3	0	0	0	0%	0%	2085	0	2085	2085	0	0	402	0.193		322	0.155	
	E		B	2	3.3	0	0	0	0%	0%	2085	0	2085	2085	0	0	402	0.193		322	0.155	
Long Yip Street	E		D	2,3,4	3.3	0	0	0	0%	0%	2085	4170	2085	2085	4170	4170	663	0.318		518	0.248	
	E		D	2,3,4	3.3	0	0	0	0%	0%	2085	0	2085	2085	0	0	663	0.318		518	0.248	
	E		D	2,3,4	3.3	0	15	0	100%	100%	2085	2085	1895	1895	1895	1895	95	0.050		140	0.074	
Po Yip Street	N		C	3,4	5.5	0	0	1	0%	0%	2165	4470	2165	2165	4295	4280	338	0.156	0.156	304	0.140	
	N		C	3,4	5.5	0	15	0	81%	91%	2305	0	2130	2115	0	0	332	0.156		296	0.140	
Yuen Long On Lok Road	W		F	2,3,4	3.5	0	0	1	0%	0%	1965	6175	1965	1965	6175	6175	539	0.274		574	0.292	0.292
	W		F	2,3,4	3.5	0	0	0	0%	0%	2105	0	2105	2105	0	0	578	0.274		615	0.292	
	W		F	2,3,4	3.5	0	0	0	0%	0%	2105	0	2105	2105	0	0	578	0.274		615	0.292	
Yuen Long On Lok Road	W		G	2,3	3.5	0	0	0	0%	0%	2105	6315	2105	2105	6315	6315	442	0.210		455	0.216	
	W		G	2,3	3.5	0	0	0	0%	0%	2105	0	2105	2105	0	0	442	0.210		455	0.216	
	W		G	2,3	3.5	0	0	0	0%	0%	2105	0	2105	2105	0	0	442	0.210		455	0.216	
Yuen Long Tung Tai Street	N		H	1,4	3.5	15	0	0	100%	100%	2105	4210	1915	1915	3830	3830	185	0.097		220	0.115	
	N		H	1,4	3.5	15	0	0	100%	100%	2105	0	1915	1915	0	0	185	0.097		220	0.115	

Pedestrian Crossing			
	Ip	2,3,4	Min. Crossing Time = 9Gm + 10FGm =19s
	Jp	1	Min. Crossing Time = 8Gm + 9Gm =17s
	Kp	2,3,4	Min. Crossing Time = 10Gm + 12FGm =22s
	Lp	1	Min. Crossing Time = 8Gm + 9FGm =17s
	Mp	1	Min. Crossing Time = 8Gm + 9FGm =17s
	Np	2,3	Min. Crossing Time = 10Gm + 12FGm =22s

Notes:

Traffic Flow (pcu / hr)

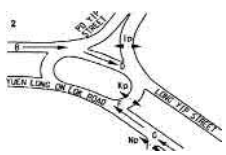


A.M. Check Phase	
εy	0.470
L (sec)	21
C (sec)	120
y pract.	0.743
R.C. (%)	58%

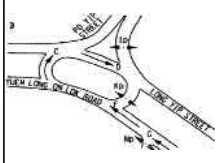
P.M. Check Phase	
εy	0.394
L (sec)	21
C (sec)	120
y pract.	0.743
R.C. (%)	88%

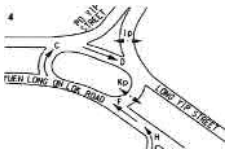
Stage / Phase Diagrams

I/G =7s



I/G = 7s

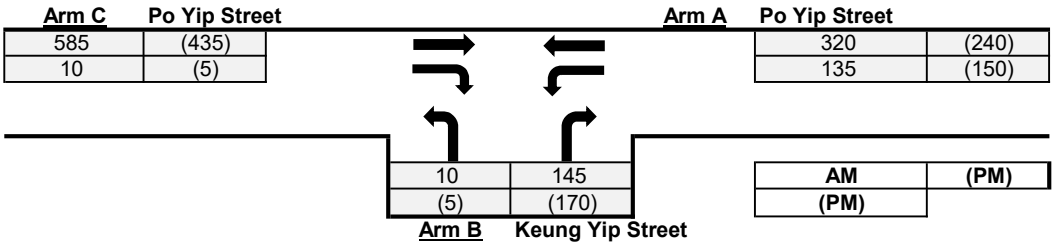




I/G =10s

Priority Junction Calculation

Junction :	Po Yip Street / Keung Yip Street (Jn B)	Job No.:	26016HK
Scenario :	2026 Observed Traffic Flows		



The predictive equations of capacity of movement are:

Q-BA = D(627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB))
Q-BC = E(745 - Y(0.364q-AC + 0.144q-AB))
Q-CB = F(745 - 0.364Y(q-AC + q-AB))

The geometric parameters represented by D, E, F are:

D = (1 + 0.094(w-BA - 3.65))(1 + 0.0009(V-rBA - 120))(1 + 0.0006(V-IBA - 150))
E = (1 + 0.094(w-BC - 3.65))(1 + 0.0009(V-rBC - 120))
F = (1 + 0.094(w-CB - 3.65))(1 + 0.0009(V-rCB - 120))

where
Y = 1 - 0.0345W
q-AB, etc = the design flow of movement AB, etc
W = major road width
W-CR = central reserve width
w-BA, etc = lane width to vehicle
v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc
v-IBA = visibility to the left for waiting vehicles in stream BA, etc

Geometry :

Input						Calculated	
W	17	V-rBA	80	w-BA	3.5	D	0.921
W-CR	1.5	V-IBA	98	w-BC	3.5	E	0.955
C-B blocked C-A, residual width <2.5m? (Yes: 1, No: 0)	0	V-rBC	85	w-CB	4	F	1.154
Minor Road Share LT&RT? (Yes: 1, No: 0)	1	V-rCB	250			Y	0.414

Analysis :

Traffic Flow pcu/hr	AM	PM	Capacity pcu/hr	AM	PM	
q-CA	585	435	Q-BA	492	516	
q-CB	10	5	Q-BC	658	668	
q-AB	135	150	Q-CB	781	792	
q-AC	320	240	Q-CA	N/A	N/A	(If C-B blocked C-A)
q-BA	145	170	Q-BAC	500	520	(If Minor Road Share LT&RT)
q-BC	10	5				
f	0.065	0.029				

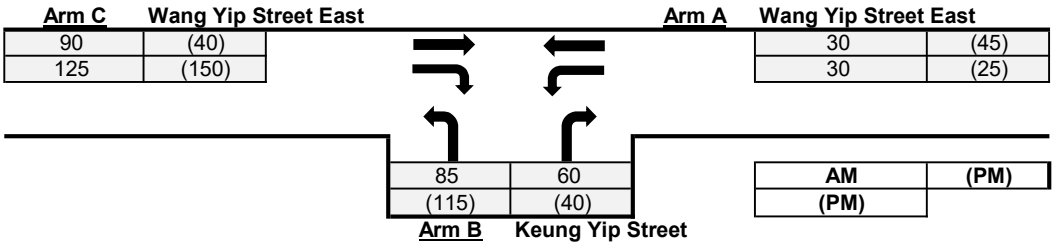
Results :

Ratio of Flow-to-Capacity	AM	PM
B-A	N/A	N/A
B-C	N/A	N/A
C-B	0.01	0.01
C-A	N/A	N/A
B-AC	0.31	0.34
Critical DFC	**0.31**	**0.34**

CTA Consultants Ltd.

Priority Junction Calculation

Junction :	Wang Yip Street East/ Keung Yip Street (Jn C)	Job No.:	26016HK
Scenario :	2026 Observed Traffic Flows		



The predictive equations of capacity of movement are:

Q-BA = D(627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB))
Q-BC = E(745 - Y(0.364q-AC + 0.144q-AB))
Q-CB = F(745 - 0.364Y(q-AC + q-AB))

The geometric parameters represented by D, E, F are:

D = (1 + 0.094(w-BA - 3.65))(1 + 0.0009(V-rBA - 120))(1 + 0.0006(V-IBA - 150))
E = (1 + 0.094(w-BC - 3.65))(1 + 0.0009(V-rBC - 120))
F = (1 + 0.094(w-CB - 3.65))(1 + 0.0009(V-rCB - 120))

where
Y = 1 - 0.0345W
q-AB, etc = the design flow of movement AB, etc
W = major road width
W-CR = central reserve width
w-BA, etc = lane width to vehicle
v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc
v-IBA = visibility to the left for waiting vehicles in stream BA, etc

Geometry :

Input						Calculated	
W	10	V-rBA	80	w-BA	3.5	D	0.891
W-CR	0	V-IBA	45	w-BC	3.5	E	0.955
C-B blocked C-A, residual width <2.5m? (Yes: 1, No: 0)	1	V-rBC	85	w-CB	5	F	1.259
Minor Road Share LT&RT? (Yes: 1, No: 0)	1	V-rCB	250			Y	0.655

Analysis :

Traffic Flow pcu/hr	AM	PM	Capacity pcu/hr	AM	PM	
q-CA	90	40	Q-BA	500	496	
q-CB	125	150	Q-BC	702	699	
q-AB	30	25	Q-CB	920	917	
q-AC	30	45	Q-CA	1555	1505	(If C-B blocked C-A)
q-BA	60	40	Q-BAC	601	632	(If Minor Road Share LT&RT)
q-BC	85	115				
f	0.586	0.742				

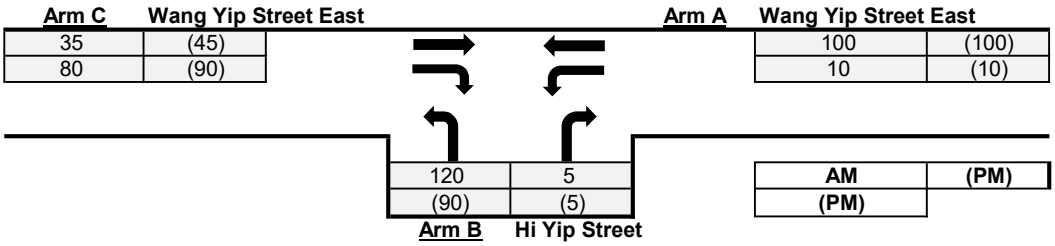
Results :

Ratio of Flow-to-Capacity	AM	PM
B-A	N/A	N/A
B-C	N/A	N/A
C-B	0.14	0.16
C-A	0.06	0.03
B-AC	0.24	0.25
Critical DFC	**0.24**	**0.25**

CTA Consultants Ltd.

Priority Junction Calculation

Junction :	Wang Yip Street East/ Hi Yip Street (Jn D)	Job No.:	26016HK
Scenario :	2026 Observed Traffic Flows		



The predictive equations of capacity of movement are:

Q-BA = D(627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB))
Q-BC = E(745 - Y(0.364q-AC + 0.144q-AB))
Q-CB = F(745 - 0.364Y(q-AC + q-AB))

The geometric parameters represented by D, E, F are:

D = (1 + 0.094(w-BA - 3.65))(1 + 0.0009(V-rBA - 120))(1 + 0.0006(V-IBA - 150))
E = (1 + 0.094(w-BC - 3.65))(1 + 0.0009(V-rBC - 120))
F = (1 + 0.094(w-CB - 3.65))(1 + 0.0009(V-rCB - 120))

where
Y = 1 - 0.0345W
q-AB, etc = the design flow of movement AB, etc
W = major road width
W-CR = central reserve width
w-BA, etc = lane width to vehicle
v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc
v-IBA = visibility to the left for waiting vehicles in stream BA, etc

Geometry :

Input						Calculated	
W	10	V-rBA	37	w-BA	3.3	D	0.838
W-CR	0	V-IBA	45	w-BC	3.3	E	0.900
C-B blocked C-A, residual width <2.5m? (Yes: 1, No: 0)	1	V-rBC	43	w-CB	5	F	1.121
Minor Road Share LT&RT? (Yes: 1, No: 0)	1	V-rCB	114			Y	0.655

Analysis :

Traffic Flow pcu/hr	AM	PM	Capacity pcu/hr	AM	PM	
q-CA	35	45	Q-BA	478	474	
q-CB	80	90	Q-BC	648	648	
q-AB	10	10	Q-CB	806	806	
q-AC	100	100	Q-CA	1621	1599	(If C-B blocked C-A)
q-BA	5	5	Q-BAC	639	636	(If Minor Road Share LT&RT)
q-BC	120	90				
f	0.960	0.947				

Results :

Ratio of Flow-to-Capacity	AM	PM
B-A	N/A	N/A
B-C	N/A	N/A
C-B	0.10	0.11
C-A	0.02	0.03
B-AC	0.20	0.15
Critical DFC	**0.20**	**0.15**

CTA Consultants Ltd.

TRAFFIC SIGNALS CALCULATION Job No: 26016HK **CTA Consultants Ltd.**

Junction: **Yuen Long On Lok Road / Long Yip Street / Ma Wang Road / Wang Tat Road / Wang Lok Street (Jn E)**

Description: **2026 Observed Traffic Flows**

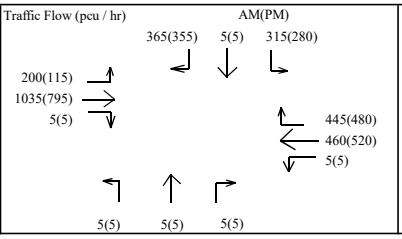
Approach	Direction	Movement notation	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Nearside 0/1	Pro. Turning (%) A.M.	Pro. Turning (%) P.M.	Saturation Flow (pcu/hr)	Total Saturation Flow (pcu/hr)	Revised Saturation Flow (pcu/hr) A.M.	Revised Saturation Flow (pcu/hr) P.M.	Total Revised Saturation Flow (pcu/hr) A.M.	Total Revised Saturation Flow (pcu/hr) P.M.	A.M. Flow (pcu/hr)	A.M. y Value	A.M. Critical y	P.M. Flow (pcu/hr)	P.M. y Value	P.M. Critical y
Long Yip Street	W		A	1	3.0	0	27	0	100%	100%	2055	4110	1945	1945	3890	3890	223	0.114	0.114	240	0.123	
	W		A	1	3.0	0	27	0	100%	100%	2055	4110	1945	1945	3890	3890	223	0.114		240	0.123	
	W		A	1	3.0	0	0	0	0%	0%	2055	4110	2055	2055	4110	4110	230	0.112		260	0.127	0.127
	W		A	1	3.0	0	0	0	0%	0%	2055	0	2055	2055	0	0	230	0.112		260	0.127	
	W		A	1	3.0	10	0	1	100%	100%	1915	1915	1665	1665	1665	1665	5	0.003		5	0.003	
Wang Lok Street	N		D	2	3.0	0	25	0	100%	100%	2055	2055	1940	1940	1940	1940	5	0.003		5	0.003	
	N		D	2	3.0	20	0	1	50%	50%	1915	1915	1845	1845	1845	1845	10	0.005		10	0.005	
Wang Tat Road	E		C	3	3.5	16	0	1	100%	100%	1965	8280	1795	1795	8105	8105	200	0.111		115	0.064	
	E		C	3	3.5	18	0	0	0%	0%	2105	0	2105	2105	0	0	347	0.165	0.165	267	0.127	0.127
	E		C	3	3.5	0	0	0	0%	0%	2105	0	2105	2105	0	0	347	0.165		267	0.127	
	E		C	3	3.5	0	15	0	1%	2%	2105	0	2100	2100	0	0	346	0.165		266	0.127	
Wang Lok Street	S		B	4	3.5	25	0	1	100%	100%	1965	6175	1855	1855	5855	5855	217	0.117	0.117	203	0.109	0.109
	S		B	4	3.5	25	27	0	2% / 56	5% / 62	2105	0	1995	1995	0	0	233	0.117		218	0.109	
	S		B	4	3.5	0	30	0	100%	100%	2105	0	2005	2005	0	0	235	0.117		219	0.109	

Pedestrian Crossing

Ep	3	Min. Crossing Time = 6Gm + 12FGm =18s
Fp	1,2,4	Min. Crossing Time = 10Gm + 15FGm =25s
Gp	4	Min. Crossing Time = 7Gm + 11FGm =18s
Hp	1,2,3	Min. Crossing Time = 8Gm + 10FGm =18s
Ip	2	Min. Crossing Time = 7Gm + 7FGm =14s
Jp	1,3,4	Min. Crossing Time = 5Gm + 6FGm =11s

Notes:

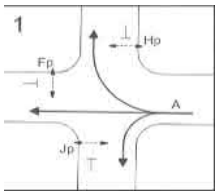
Traffic Flow (pcu / hr) AM(PM)



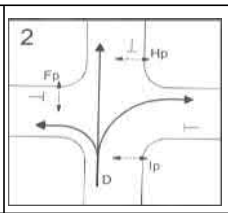
A.M. Check Phase	
εy	0.396
L (sec)	29
C (sec)	120
y pract.	0.683
R.C. (%)	72%

P.M. Check Phase	
εy	0.363
L (sec)	29
C (sec)	120
y pract.	0.683
R.C. (%)	88%

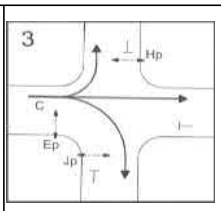
Stage / Phase Diagrams



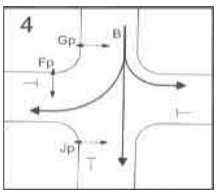
I/G =7s



I/G = 5+4s

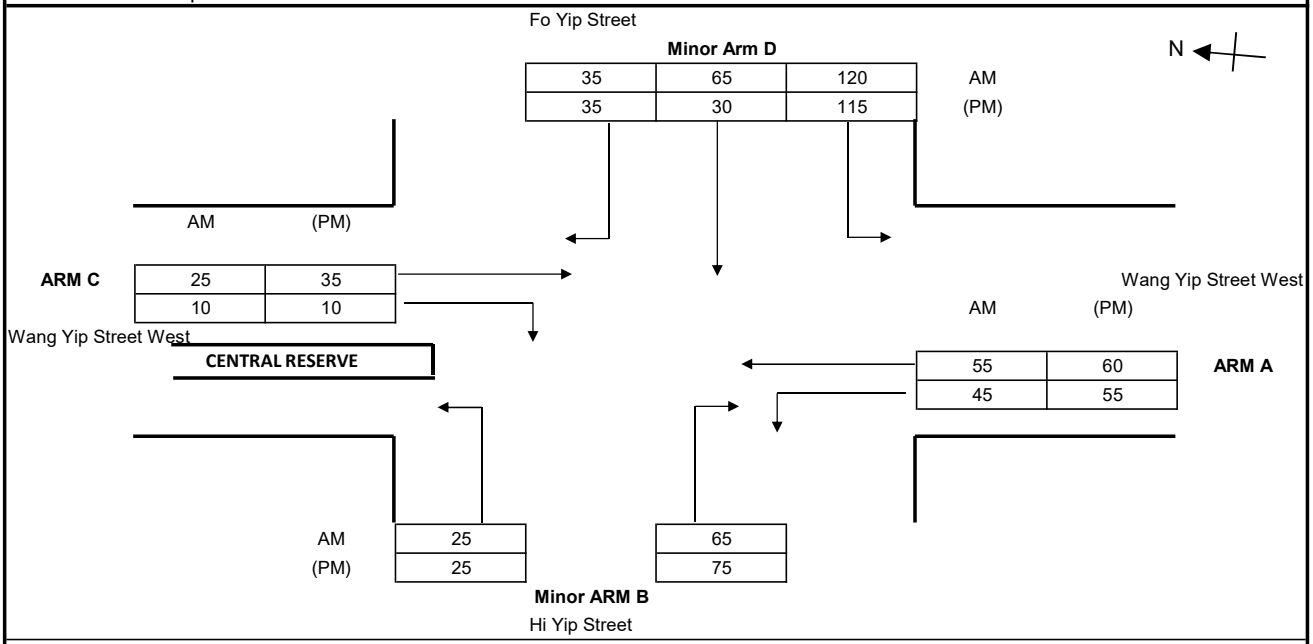


I/G = 8s



I/G =9s

Job Title:			
Junction:	Fo Yip Street / Wang Yip Street West / Hi Yip Street (Jn F)		
Scheme:			Ref. No.:
Year:	2026 Observed Traffic Flows	Job No.: 26016HK	Rev.: -
ARM A:	Wang Yip Street West		
ARM B:	Hi Yip Street		
ARM C:	Wang Yip Street West		
ARM D:	Fo Yip Street		



GEOMETRY					ARM B		ARM D
Major road width	W	10.00	Lane widths		w(b-a)	2.60	w(d-c) 2.20
Central Reserve width	Wcr	0.00			w(b-c)	2.60	w(d-a) 2.20
					w(c-b)	2.05	w(a-d) 2.05
Visibilities	Vr(b-a)	40	Vr(d-c)	55	D	0.78	D 0.75
	Vl(b-a)	40	Vl(d-c)	30	E	0.84	E 0.81
	Vr(b-c)	45	Vr(d-a)	55	F	0.95	F 0.87
	Vr(c-b)	250	Vr(a-d)	150	Y	0.66	Y 0.66

	Arm B			Arm D		
ANALYSIS		AM PEAK	(PM) PEAK		AM PEAK	(PM) PEAK
TRAFFIC FLOWS	q(c-a)	145	150	q(a-c)	80	85
	q(c-b)	10	10	q(a-d)	0	0
	q(a-b)	45	55	q(c-d)	0	0
	q(a-c)	90	95	q(c-a)	90	110
	q(b-a)	65	75	q(d-c)	100	65
	q(b-c)	25	25	q(d-a)	120	115
	f	0.28	0.25	f	0.55	0.64
CAPACITIES	Q(b-a)	450	448	Q(d-c)	448	444
	Q(b-c)	605	603	Q(d-a)	588	584
	Q(c-b)	676	673	Q(a-d)	631	627
	Q(b-ac)	484	479	Q(d-ca)	515	524
	Q(c-a)	1773	1773	Q(a-c)	1800	1800
RFC's	b-a	0.144	0.167	d-c	0.223	0.146
	b-c	0.041	0.041	d-a	0.204	0.197
	c-b	0.015	0.015	a-d	0.000	0.000
	b-ac	0.186	0.209	d-ca	0.427	0.343
	c-a	0.082	0.085	a-c	0.044	0.047

	AM	(PM)
Worst RFC	**0.427**	**0.343**

Where Vl and Vr are visibility distances to the left or right of the respective streams

D = (1+0.094(w(b-a)-3.65))(1+0.0009(Vr(b-a)-120))(1+0.0006(Vl(b-a)-150))

E = (1+0.094(w(b-c)-3.65))(1+0.0009(Vr(b-c)-120))

F = (1+0.094(w(c-b)-3.65))(1+0.0009(Vr(c-b)-120))

Y = 1-0.0345W

f = proportion of minor traffic turning left

Q (b-ac) = Q(b-c)*Q(b-a)/(1-f)*Q(b-c)+f*Q(b-a)

Capacity of combined streams
- in accordance with TPDM V2.4

T.P.D.M.V.2.4
Appendix 1

Calculated by:	Date: Jul-26	Checked by:

TRAFFIC SIGNALS CALCULATION Job No: 26016HK **CTA Consultants Ltd.**

Junction: **Castle Peak Road - Yuen Long / Yuen Long On Lok Road / Long Yat Road (Jn G)**

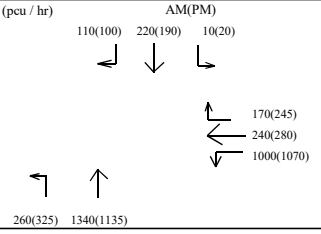
Description: **2026 Observed Traffic Flows**

Approach	Direction	Movement notation	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Nearside 0/1	Pro. Turning (%) A.M.	Pro. Turning (%) P.M.	Saturation Flow (pcu/hr)	Total Saturation Flow (pcu/hr)	Revised Saturation Flow (pcu/hr) A.M.	Revised Saturation Flow (pcu/hr) P.M.	Total Revised Saturation Flow (pcu/hr) A.M.	Total Revised Saturation Flow (pcu/hr) P.M.	A.M. Flow (pcu/hr)	A.M. y Value	A.M. Critical y	P.M. Flow (pcu/hr)	P.M. y Value	P.M. Critical y
Castle Peak Road - Yuen Long	N	↰	B	1	4.0	25	0	1	100%	100%	2015	2015	1900	1900	1900	1900	260	0.137		325	0.171	
	N	↑	B	1	3.3	0	0	0	0%	0%	2085	4170	2085	2085	4170	4170	670	0.321		568	0.272	
	N	↑	B	1	3.3	0	0	0	0%	0%	2085	0	2085	2085	0	0	670	0.321	0.321	568	0.272	0.272
Castle Peak Road - Yuen Long	N	↑	C	1,3	3.6	0	0	1	0%	0%	1975	4090	1975	1975	4090	4090	647	0.328		548	0.278	
	N	↑	C	1,3	3.6	0	0	0	0%	0%	2115	0	2115	2115	0	0	693	0.328		587	0.278	
Long Yat Road	S	↳	D1	2,3	3.0	25	0	1	100%	100%	1915	1915	1805	1805	1805	1805	10	0.006		20	0.011	
	S	↓	D2	2	3.0	0	0	0	0%	0%	2055	4110	2055	2055	4110	4110	165	0.080		145	0.071	
	S	↓	D2	2	3.0	0	0	0	0%	0%	2055	0	2055	2055	0	0	165	0.080		145	0.071	
Long Yat Road	S	↓	E	2	3.5	0	0	1	0%	0%	1965	4070	1965	1965	3940	3935	165	0.084		145	0.074	
	S	↰↓	E	2	3.5	0	15	0	67%	69%	2105	0	1975	1970	0	0	165	0.084	0.084	145	0.074	0.074
Castle Peak Road - Yuen Long	W	↱	G	3	3.0	0	15	0	100%	100%	2055	2055	1870	1870	1870	1870	170	0.091	0.115	245	0.131	0.134
	W	←	G	3	3.3	0	0	0	0%	0%	2085	2085	2085	2085	2085	2085	240	0.115		280	0.134	
	W	↰↓	M	1,3	3.2	20	0	1	100%	100%	1935	4010	1800	1800	3760	3760	479	0.266		512	0.285	
	W	↰↓	M	1,3	3.2	25	0	0	100%	100%	2075	0	1960	1960	0	0	521	0.266		558	0.285	

Pedestrian Crossing			
	Hp	2,3	Min. Crossing Time = 10Gm + 8FGm =18s
	Ip	1,3	Min. Crossing Time = 5Gm + 6FGm =11s
	Jp	2	Min. Crossing Time = 5Gm + 6FGm =11s
	Lp	1,2	Min. Crossing Time = 5Gm + 5FGm =10s
	Np	2	Min. Crossing Time = 5Gm + 7FGm =12s
	Op	1	Min. Crossing Time = 5Gm + 6FGm =11s
	Pp	1	Min. Crossing Time = 5Gm + 5FGm =10s

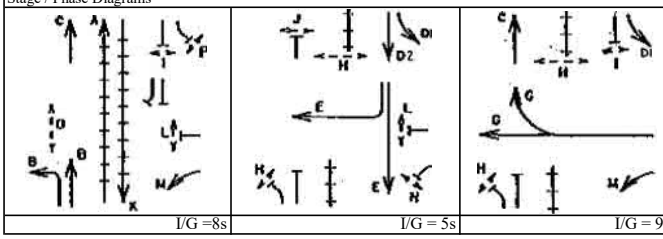
Notes:

Traffic Flow (pcu / hr) AM(PM)



A.M. Check Phase		P.M. Check Phase	
εy	0.520	εy	0.480
L (sec)	19	L (sec)	19
C (sec)	120	C (sec)	120
y pract.	0.758	y pract.	0.758
R.C. (%)	46%	R.C. (%)	58%

Stage / Phase Diagrams



I/G =8s | I/G = 5s | I/G = 9s

TRAFFIC SIGNALS CALCULATION Job No: 26016HK **CTA Consultants Ltd.**

Junction: **Castle Peak Road - Yuen Long / Long Yat Road (Jn H)**

Description: **2026 Observed Traffic Flows**

Approach	Direction	Movement notation	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Nearside 0/1	Pro. Turning (%) A.M.	Pro. Turning (%) P.M.	Saturation Flow (pcu/hr)	Total Saturation Flow (pcu/hr)	Revised Saturation Flow (pcu/hr) A.M.	Revised Saturation Flow (pcu/hr) P.M.	Total Revised Saturation Flow (pcu/hr) A.M.	Total Revised Saturation Flow (pcu/hr) P.M.	A.M. Flow (pcu/hr)	A.M. y Value	A.M. Critical y	P.M. Flow (pcu/hr)	P.M. y Value	P.M. Critical y
Castle Peak Road - Yuen Long	E	↑	B	1	3.5	20	0	1	100%	100%	1965	1965	1830	1830	1830	1830	25	0.014		25	0.014	
	E	→	A	1,2	3.5	0	0	0	0%	0%	2105	6315	2105	2105	6315	6315	477	0.226		387	0.184	
	E	→	A	1,2	3.5	0	0	0	0%	0%	2105	0	2105	2105	0	0	477	0.226		387	0.184	
	E	→	A	1,2	3.5	0	0	0	0%	0%	2105	0	2105	2105	0	0	477	0.226	0.226	387	0.184	0.184
Castle Peak Road - Yuen Long	W	↖	D	3	3.7	0	30	0	100%	100%	2120	2120	2020	2020	2020	2020	295	0.146		275	0.136	
Long Yat Road	S	↳	E	3,4	3.7	25	0	1	100%	100%	2145	4265	2025	2025	4045	4045	731	0.361	0.361	696	0.344	0.344
	S	↳	E	3,4	3.7	30	0	0	100%	100%	2120	0	2020	2020	0	0	729	0.361		694	0.344	
	S	↲	C	1,4	3.7	0	25	0	100%	100%	2120	2120	2000	2000	2000	2000	250	0.125		225	0.113	

Pedestrian Crossing			
	Fp	1,4	Min. Crossing Time = 5Gm + 10FGm =15s
	Gp	1,2	Min. Crossing Time = 5Gm + 17FGm =22s

Notes:

Traffic Flow (pcu / hr) AM(PM)

250(225)

1460(1390)

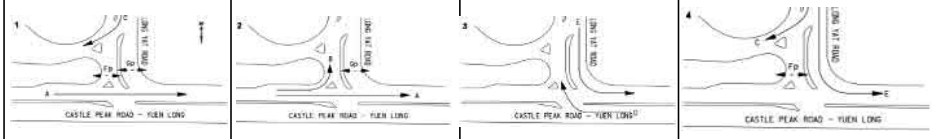
25(25)

1430(1160)

295(275)

A.M. Check Phase		P.M. Check Phase	
εy	0.587	εy	0.527
L (sec)	8	L (sec)	8
C (sec)	120	C (sec)	120
y pract.	0.840	y pract.	0.840
R.C. (%)	43%	R.C. (%)	59%

Stage / Phase Diagrams



I/G = 5s I/G = 5s

TRAFFIC SIGNALS CALCULATION Job No: 26016HK **CTA Consultants Ltd.**

Junction: **Pok Oi Interchange (Yuen Long Highway Slip Road Northbound) (Jn I)**
Description: **2026 Observed Traffic Flows**

Approach	Direction	Movement notation	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Nearside 0/1	Pro. Turning (%) A.M.	Pro. Turning (%) P.M.	Revised Saturation Flow (pcu/hr) A.M.	Revised Saturation Flow (pcu/hr) P.M.	A.M. Peak Flow (pcu/hr)	A.M. Peak y Value	A.M. Peak Critical y	P.M. Peak Flow (pcu/hr)	P.M. Peak y Value	P.M. Peak Critical y
Yuen Long Highway	N		D	2	5.00	25	0	1	47%	61%	2060	2040	558	0.271	0.271	482	0.236	0.236
Slip Road	N		D	2	5.00	0	0	0	0%	0%	2255	2255	612	0.271		533	0.236	
Pok Oi Interchange	W	←	C	1	5.00	0	0	1	0%	0%	2115	2115	753	0.356	0.356	854	0.404	0.404
	W	←	C	1	5.00	0	0	0	0%	0%	2255	2255	802	0.356		911	0.404	

Notes:

Traffic Flow (pcu / hr) [AM (PM)]

← 1555(1765)

↰ 260(295) ↑ 910(720)

Check Phase		Check Phase	
εy	0.627	εy	0.640
L (sec)	12	L (sec)	12
C (sec)	110	C (sec)	110
y pract.	0.802	y pract.	0.802
R.C. (%)	28%	R.C. (%)	25%

Stage / Phase Diagrams

1	2			
C ←	D ↖ ↑ ⊢			
I/G = 7	I/G = 7			

TRAFFIC SIGNALS CALCULATION Job No: 26016HK **CTA Consultants Ltd.**

Junction: **Pok Oi Interchange (Yuen Long Highway Slip Road Southbound) (Jn I)**
Description: **2026 Observed Traffic Flows**

Approach	Direction	Movement notation	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Nearside 0/1	Pro. Turning (%) A.M.	Pro. Turning (%) P.M.	Revised Saturation Flow (pcu/hr) A.M.	Revised Saturation Flow (pcu/hr) P.M.	A.M. Peak Flow (pcu/hr)	A.M. Peak y Value	A.M. Peak Critical y	P.M. Peak Flow (pcu/hr)	P.M. Peak y Value	P.M. Peak Critical y
Pok Oi Interchange	E	→	B	2	5.00	0	0	1	0%	0%	2115	2115	762	0.360	0.360	649	0.307	0.307
	E	→	B	2	5.00	0	0	0	0%	0%	2255	2255	813	0.360		691	0.307	
Yuen Long Highway Slip Road	S	↳	A	1	5.00	50	0	1	0%	0%	2115	2115	486	0.230	0.230	612	0.289	0.289
	S	↓	A	1	5.00	0	0	0	0%	0%	2255	2255	519	0.230		653	0.289	

Notes:

Traffic Flow (pcu / hr) [AM (PM)]

1005(1265) ↓ 0(0) ↳

1575(1340) →

Check Phase		Check Phase	
εy	0.590	εy	0.596
L (sec)	12	L (sec)	12
C (sec)	110	C (sec)	110
y pract.	0.802	y pract.	0.802
R.C. (%)	36%	R.C. (%)	35%

Stage / Phase Diagrams

1	2			
A	B			
I/G = 7	I/G = 7			

TRAFFIC SIGNALS CALCULATION Job No: 26016HK **CTA Consultants Ltd.**

Junction: **Yuen Long On Lok Road / Long Yip Street / Po Yip Street / Yuen Long Tung Tai Street (Jn A)**

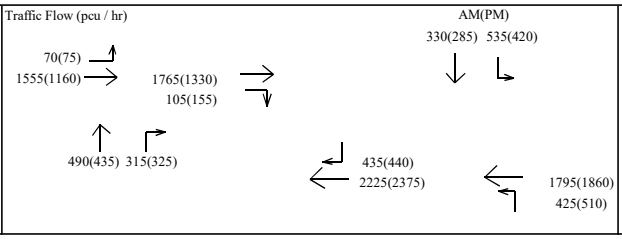
Description: **2033 Reference Traffic Flows**

Approach	Direction	Movement notation	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Nearside 0/1	Pro. Turning (%) A.M.	Pro. Turning (%) P.M.	Saturation Flow (pcu/hr)	Total Saturation Flow (pcu/hr)	Revised Saturation Flow (pcu/hr) A.M.	Revised Saturation Flow (pcu/hr) P.M.	Total Revised Saturation Flow (pcu/hr) A.M.	Total Revised Saturation Flow (pcu/hr) P.M.	A.M. Flow (pcu/hr)	A.M. y Value	A.M. Critical y	P.M. Flow (pcu/hr)	P.M. y Value	P.M. Critical y
Po Yip Street	S		A	1	3.5	35	0	1	100%	100%	1965	6175	1885	1885	6015	6020	271	0.144	0.144	221	0.117	0.117
	S		A	1	3.5	35	0	0	91%	84%	2105	0	2025	2030	0	0	291	0.144		238	0.117	
	S		A	1	3.5	0	0	0	0%	0%	2105	0	2105	2105	0	0	303	0.144		246	0.117	
Po Yip Street	S		E	1	3.5	0	15	0	100%	100%	2105	4210	1915	1915	3830	3830	218	0.114		220	0.115	
	S		E	1	3.5	0	15	0	100%	100%	2105	0	1915	1915	0	0	218	0.114		220	0.115	
Long Yip Street	E		B	2	3.3	40	0	0	13%	18%	2085	6255	2075	2070	6245	6240	540	0.260	0.260	410	0.198	
	E		B	2	3.3	0	0	0	0%	0%	2085	0	2085	2085	0	0	543	0.260		413	0.198	
	E		B	2	3.3	0	0	0	0%	0%	2085	0	2085	2085	0	0	543	0.260		413	0.198	
Long Yip Street	E		D	2,3,4	3.3	0	0	0	0%	0%	2085	4170	2085	2085	4170	4170	883	0.423		665	0.319	
	E		D	2,3,4	3.3	0	0	0	0%	0%	2085	0	2085	2085	0	0	883	0.423		665	0.319	
	E		D	2,3,4	3.3	0	15	0	100%	100%	2085	2085	1895	1895	1895	1895	105	0.055		155	0.082	
Po Yip Street	N		C	3,4	5.5	0	0	1	0%	0%	2165	4470	2165	2165	4300	4285	405	0.187	0.187	384	0.177	
	N		C	3,4	5.5	0	15	0	79%	86%	2305	0	2135	2120	0	0	400	0.187		376	0.177	
Yuen Long On Lok Road	W		F	2,3,4	3.5	0	0	1	0%	0%	1965	6175	1965	1965	6175	6175	708	0.360		756	0.385	0.385
	W		F	2,3,4	3.5	0	0	0	0%	0%	2105	0	2105	2105	0	0	758	0.360		810	0.385	
	W		F	2,3,4	3.5	0	0	0	0%	0%	2105	0	2105	2105	0	0	758	0.360		810	0.385	
Yuen Long On Lok Road	W		G	2,3	3.5	0	0	0	0%	0%	2105	6315	2105	2105	6315	6315	598	0.284		620	0.295	
	W		G	2,3	3.5	0	0	0	0%	0%	2105	0	2105	2105	0	0	598	0.284		620	0.295	
	W		G	2,3	3.5	0	0	0	0%	0%	2105	0	2105	2105	0	0	598	0.284		620	0.295	
Yuen Long Tung Tai Street	N		H	1,4	3.5	15	0	0	100%	100%	2105	4210	1915	1915	3830	3830	213	0.111		255	0.133	
	N		H	1,4	3.5	15	0	0	100%	100%	2105	0	1915	1915	0	0	213	0.111		255	0.133	

Pedestrian Crossing			
	Ip	2,3,4	Min. Crossing Time = 9Gm + 10FGm =19s
	Jp	1	Min. Crossing Time = 8Gm + 9Gm =17s
	Kp	2,3,4	Min. Crossing Time = 10Gm + 12FGm =22s
	Lp	1	Min. Crossing Time = 8Gm + 9FGm =17s
	Mp	1	Min. Crossing Time = 8Gm + 9FGm =17s
	Np	2,3	Min. Crossing Time = 10Gm + 12FGm =22s

Notes:

Traffic Flow (pcu / hr)

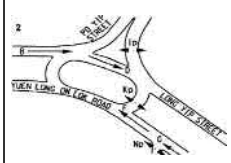


A.M. Check Phase	
εy	0.591
L (sec)	21
C (sec)	120
y pract.	0.743
R.C. (%)	26%

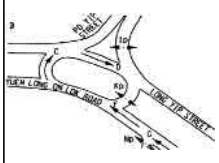
P.M. Check Phase	
εy	0.502
L (sec)	21
C (sec)	120
y pract.	0.743
R.C. (%)	48%

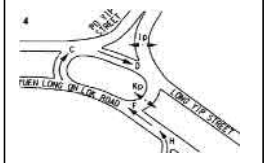
Stage / Phase Diagrams

I/G =7s



I/G = 7s

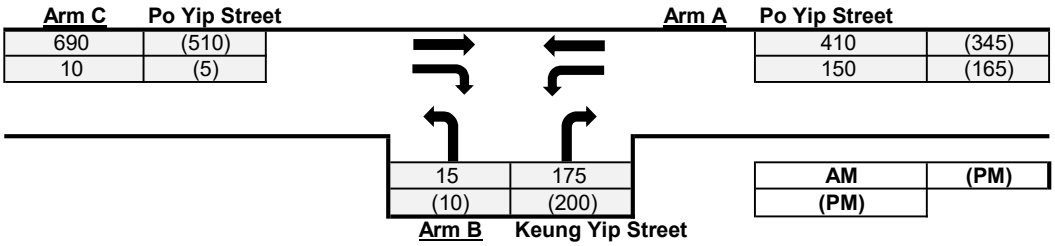




I/G =10s

Priority Junction Calculation

Junction :	Po Yip Street / Keung Yip Street (Jn B)	Job No.:	26016HK
Scenario :	2033 Reference Traffic Flows		



The predictive equations of capacity of movement are:

Q-BA = D(627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB))
Q-BC = E(745 - Y(0.364q-AC + 0.144q-AB))
Q-CB = F(745 - 0.364Y(q-AC + q-AB))

The geometric parameters represented by D, E, F are:

D = (1 + 0.094(w-BA - 3.65))(1 + 0.0009(V-rBA - 120))(1 + 0.0006(V-IBA - 150))
E = (1 + 0.094(w-BC - 3.65))(1 + 0.0009(V-rBC - 120))
F = (1 + 0.094(w-CB - 3.65))(1 + 0.0009(V-rCB - 120))

where
Y = 1 - 0.0345W
q-AB, etc = the design flow of movement AB, etc
W = major road width
W-CR = central reserve width
w-BA, etc = lane width to vehicle
v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc
v-IBA = visibility to the left for waiting vehicles in stream BA, etc

Geometry :

Input						Calculated	
W	17	V-rBA	80	w-BA	3.5	D	0.921
W-CR	1.5	V-IBA	98	w-BC	3.5	E	0.955
C-B blocked C-A, residual width <2.5m? (Yes: 1, No: 0)	0	V-rBC	85	w-CB	4	F	1.154
Minor Road Share LT&RT? (Yes: 1, No: 0)	1	V-rCB	250			Y	0.414

Analysis :

Traffic Flow pcu/hr	AM	PM	Capacity pcu/hr	AM	PM	
q-CA	690	510	Q-BA	469	494	
q-CB	10	5	Q-BC	644	652	
q-AB	150	165	Q-CB	762	771	
q-AC	410	345	Q-CA	N/A	N/A	(If C-B blocked C-A)
q-BA	175	200	Q-BAC	480	500	(If Minor Road Share LT&RT)
q-BC	15	10				
f	0.079	0.048				

Results :

Ratio of Flow-to-Capacity	AM	PM
B-A	N/A	N/A
B-C	N/A	N/A
C-B	0.01	0.01
C-A	N/A	N/A
B-AC	0.40	0.42
Critical DFC	**0.40**	**0.42**

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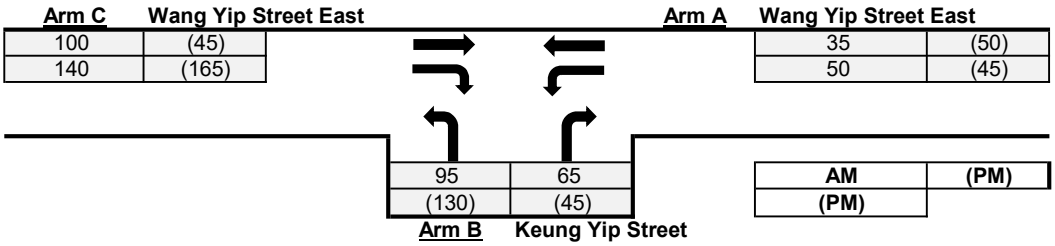
Priority Junction Calculation

Junction :	Wang Yip Street East/ Keung Yip Street (Jn C)	Job No.:	26016HK
Scenario :	2033 Reference Traffic Flows		



The predictive equations of capacity of movement are:

Q-BA = D(627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB))
Q-BC = E(745 - Y(0.364q-AC + 0.144q-AB))
Q-CB = F(745 - 0.364Y(q-AC + q-AB))

The geometric parameters represented by D, E, F are:

D = (1 + 0.094(w-BA - 3.65))(1 + 0.0009(V-rBA - 120))(1 + 0.0006(V-IBA - 150))
E = (1 + 0.094(w-BC - 3.65))(1 + 0.0009(V-rBC - 120))
F = (1 + 0.094(w-CB - 3.65))(1 + 0.0009(V-rCB - 120))

where
Y = 1 - 0.0345W
q-AB, etc = the design flow of movement AB, etc
W = major road width
W-CR = central reserve width
w-BA, etc = lane width to vehicle
v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc
v-IBA = visibility to the left for waiting vehicles in stream BA, etc

Geometry :

Input						Calculated	
W	10	V-rBA	80	w-BA	3.5	D	0.891
W-CR	0	V-IBA	45	w-BC	3.5	E	0.955
C-B blocked C-A, residual width <2.5m? (Yes: 1, No: 0)	1	V-rBC	85	w-CB	5	F	1.259
Minor Road Share LT&RT? (Yes: 1, No: 0)	1	V-rCB	250			Y	0.655

Analysis :

Traffic Flow pcu/hr	AM	PM	Capacity pcu/hr	AM	PM	
q-CA	100	45	Q-BA	491	488	
q-CB	140	165	Q-BC	699	696	
q-AB	50	45	Q-CB	912	909	
q-AC	35	50	Q-CA	1524	1473	(If C-B blocked C-A)
q-BA	65	45	Q-BAC	596	627	(If Minor Road Share LT&RT)
q-BC	95	130				
f	0.594	0.743				

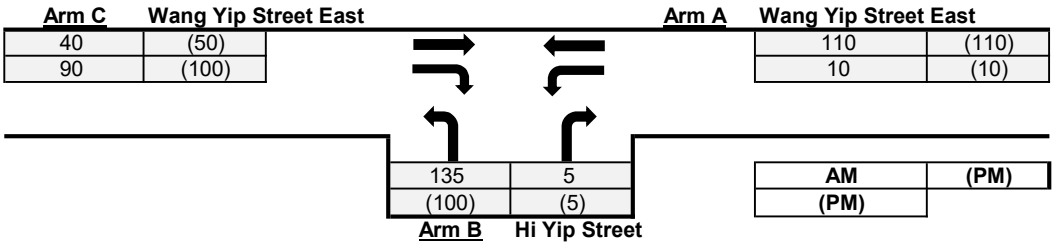
Results :

Ratio of Flow-to-Capacity	AM	PM
B-A	N/A	N/A
B-C	N/A	N/A
C-B	0.15	0.18
C-A	0.07	0.03
B-AC	0.27	0.28
Critical DFC	**0.27**	**0.28**

CTA Consultants Ltd.

Priority Junction Calculation

Junction :	Wang Yip Street East/ Hi Yip Street (Jn D)	Job No.:	26016HK
Scenario :	2033 Reference Traffic Flows		



The predictive equations of capacity of movement are:

Q-BA = D(627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB))
Q-BC = E(745 - Y(0.364q-AC + 0.144q-AB))
Q-CB = F(745 - 0.364Y(q-AC + q-AB))

The geometric parameters represented by D, E, F are:

D = (1 + 0.094(w-BA - 3.65))(1 + 0.0009(V-rBA - 120))(1 + 0.0006(V-IBA - 150))
E = (1 + 0.094(w-BC - 3.65))(1 + 0.0009(V-rBC - 120))
F = (1 + 0.094(w-CB - 3.65))(1 + 0.0009(V-rCB - 120))

where
Y = 1 - 0.0345W
q-AB, etc = the design flow of movement AB, etc
W = major road width
W-CR = central reserve width
w-BA, etc = lane width to vehicle
v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc
v-IBA = visibility to the left for waiting vehicles in stream BA, etc

Geometry :

Input						Calculated	
W	10	V-rBA	37	w-BA	3.3	D	0.838
W-CR	0	V-IBA	45	w-BC	3.3	E	0.900
C-B blocked C-A, residual width <2.5m? (Yes: 1, No: 0)	1	V-rBC	43	w-CB	5	F	1.121
Minor Road Share LT&RT? (Yes: 1, No: 0)	1	V-rCB	114			Y	0.655

Analysis :

Traffic Flow pcu/hr	AM	PM	Capacity pcu/hr	AM	PM	
q-CA	40	50	Q-BA	472	468	
q-CB	90	100	Q-BC	646	646	
q-AB	10	10	Q-CB	803	803	
q-AC	110	110	Q-CA	1598	1576	(If C-B blocked C-A)
q-BA	5	5	Q-BAC	638	635	(If Minor Road Share LT&RT)
q-BC	135	100				
f	0.964	0.952				

Results :

Ratio of Flow-to-Capacity	AM	PM
B-A	N/A	N/A
B-C	N/A	N/A
C-B	0.11	0.12
C-A	0.03	0.03
B-AC	0.22	0.17
Critical DFC	**0.22**	**0.17**

CTA Consultants Ltd.

TRAFFIC SIGNALS CALCULATION Job No: 26016HK **CTA Consultants Ltd.**

Junction: **Yuen Long On Lok Road / Long Yip Street / Ma Wang Road / Wang Tat Road / Wang Lok Street (Jn E)**

Description: **2033 Reference Traffic Flows**

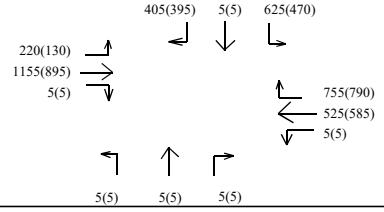
Approach	Direction	Movement notation	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Nearside 0/1	Pro. Turning (%) A.M.	Pro. Turning (%) P.M.	Saturation Flow (pcu/hr)	Total Saturation Flow (pcu/hr)	Revised Saturation Flow (pcu/hr) A.M.	Revised Saturation Flow (pcu/hr) P.M.	Total Revised Saturation Flow (pcu/hr) A.M.	Total Revised Saturation Flow (pcu/hr) P.M.	A.M. Flow (pcu/hr)	A.M. y Value	A.M. Critical y	P.M. Flow (pcu/hr)	P.M. y Value	P.M. Critical y
Long Yip Street	W		A	1	3.0	0	27	0	100%	100%	2055	4110	1945	1945	3890	3890	378	0.194	0.194	395	0.203	0.203
	W		A	1	3.0	0	27	0	100%	100%	2055	4110	1945	1945	3890	3890	378	0.194		395	0.203	
	W		A	1	3.0	0	0	0	0%	0%	2055	4110	2055	2055	4110	4110	263	0.128		293	0.142	
	W		A	1	3.0	0	0	0	0%	0%	2055	0	2055	2055	0	0	263	0.128		293	0.142	
	W		A	1	3.0	10	0	1	100%	100%	1915	1915	1665	1665	1665	1665	5	0.003		5	0.003	
Wang Lok Street	N		D	2	3.0	0	25	0	100%	100%	2055	2055	1940	1940	1940	1940	5	0.003		5	0.003	
	N		D	2	3.0	20	0	1	50%	50%	1915	1915	1845	1845	1845	1845	10	0.005		10	0.005	
Wang Tat Road	E		C	3	3.5	16	0	1	100%	100%	1965	8280	1795	1795	8105	8105	220	0.123		130	0.072	
	E		C	3	3.5	18	0	0	0%	0%	2105	0	2105	2105	0	0	387	0.184	0.184	300	0.143	0.143
	E		C	3	3.5	0	0	0	0%	0%	2105	0	2105	2105	0	0	387	0.184		300	0.143	
	E		C	3	3.5	0	15	0	1%	2%	2105	0	2100	2100	0	0	386	0.184		300	0.143	
Wang Lok Street	S		B	4	3.5	25	0	1	100%	100%	1965	6175	1855	1855	5850	5850	328	0.177	0.177	276	0.149	0.149
	S		B	4	3.5	25	27	0	4% / 14	6% / 33'	2105	0	1990	1990	0	0	352	0.177		296	0.149	
	S		B	4	3.5	0	30	0	100%	100%	2105	0	2005	2005	0	0	355	0.177		298	0.149	

Pedestrian Crossing

Ep	3	Min. Crossing Time = 6Gm + 12FGm =18s
Fp	1,2,4	Min. Crossing Time = 10Gm + 15FGm =25s
Gp	4	Min. Crossing Time = 7Gm + 11FGm =18s
Hp	1,2,3	Min. Crossing Time = 8Gm + 10FGm =18s
Ip	2	Min. Crossing Time = 7Gm + 7FGm =14s
Jp	1,3,4	Min. Crossing Time = 5Gm + 6FGm =11s

Notes:

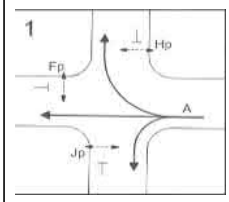
Traffic Flow (pcu / hr) AM(PM)



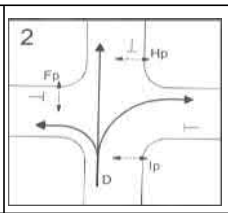
A.M. Check Phase	
εy	0.555
L (sec)	29
C (sec)	120
y pract.	0.683
R.C. (%)	23%

P.M. Check Phase	
εy	0.494
L (sec)	29
C (sec)	120
y pract.	0.683
R.C. (%)	38%

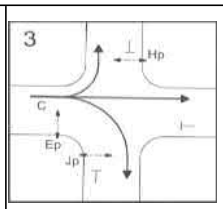
Stage / Phase Diagrams



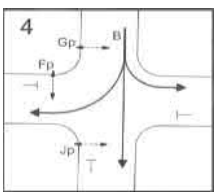
I/G =7s



I/G = 5+4s

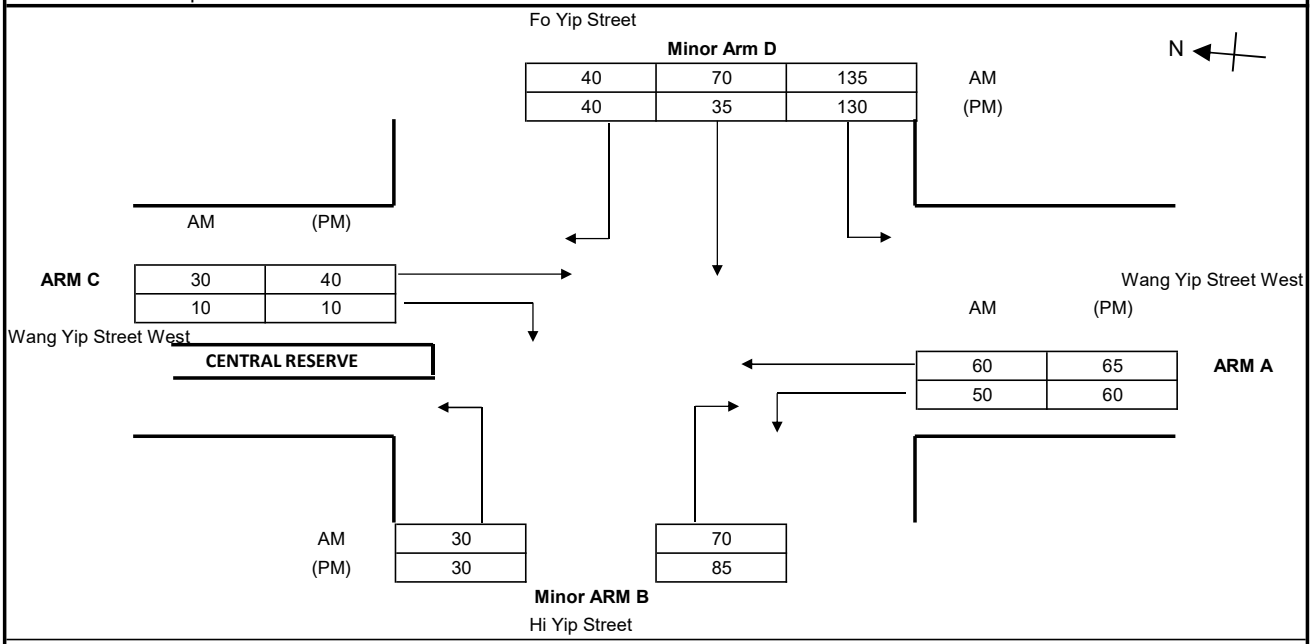


I/G = 8s



I/G =9s

Job Title:			
Junction:	Fo Yip Street / Wang Yip Street West / Hi Yip Street (Jn F)		
Scheme:			Ref. No.:
Year:	2033 Reference Traffic Flows	Job No.: 26016HK	Rev.: -
ARM A:	Wang Yip Street West		
ARM B:	Hi Yip Street		
ARM C:	Wang Yip Street West		
ARM D:	Fo Yip Street		



GEOMETRY					ARM B		ARM D
Major road width	W	10.00	Lane widths		w(b-a)	2.60	w(d-c) 2.20
Central Reserve width	Wcr	0.00			w(b-c)	2.60	w(d-a) 2.20
					w(c-b)	2.05	w(a-d) 2.05
Visibilities	Vr(b-a)	40	Vr(d-c)	55	D	0.78	D 0.75
	Vl(b-a)	40	Vl(d-c)	30	E	0.84	E 0.81
	Vr(b-c)	45	Vr(d-a)	55	F	0.95	F 0.87
	Vr(c-b)	250	Vr(a-d)	150	Y	0.66	Y 0.66

	Arm B			Arm D		
ANALYSIS		AM PEAK	(PM) PEAK		AM PEAK	(PM) PEAK
TRAFFIC FLOWS	q(c-a)	165	170	q(a-c)	90	95
	q(c-b)	10	10	q(a-d)	0	0
	q(a-b)	50	60	q(c-d)	0	0
	q(a-c)	100	105	q(c-a)	100	125
	q(b-a)	70	85	q(d-c)	110	75
	q(b-c)	30	30	q(d-a)	135	130
	f	0.30	0.26	f	0.55	0.63
CAPACITIES	Q(b-a)	446	443	Q(d-c)	445	440
	Q(b-c)	602	600	Q(d-a)	586	582
	Q(c-b)	673	670	Q(a-d)	629	624
	Q(b-ac)	484	475	Q(d-ca)	513	520
	Q(c-a)	1773	1773	Q(a-c)	1800	1800
RFC's	b-a	0.157	0.192	d-c	0.247	0.170
	b-c	0.050	0.050	d-a	0.230	0.224
	c-b	0.015	0.015	a-d	0.000	0.000
	b-ac	0.207	0.242	d-ca	0.477	0.394
	c-a	0.093	0.096	a-c	0.050	0.053

	AM	(PM)
Worst RFC	**0.477**	**0.394**

Where Vl and Vr are visibility distances to the left or right of the respective streams

D = (1+0.094(w(b-a)-3.65))(1+0.0009(Vr(b-a)-120))(1+0.0006(Vl(b-a)-150))

E = (1+0.094(w(b-c)-3.65))(1+0.0009(Vr(b-c)-120))

F = (1+0.094(w(c-b)-3.65))(1+0.0009(Vr(c-b)-120))

Y = 1-0.0345W

f = proportion of minor traffic turning left

Q (b-ac) = Q(b-c)*Q(b-a)/(1-f)*Q(b-c)+f*Q(b-a)

Capacity of combined streams
- in accordance with TPDM V2.4

T.P.D.M.V.2.4
Appendix 1

Calculated by:	Date: Jul-26	Checked by:

TRAFFIC SIGNALS CALCULATION Job No: 26016HK **CTA Consultants Ltd.**

Junction: **Castle Peak Road - Yuen Long / Yuen Long On Lok Road / Long Yat Road (Jn G)**

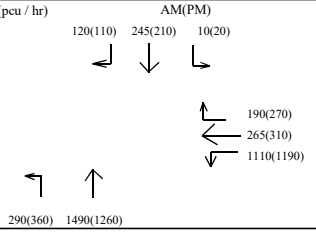
Description: **2033 Reference Traffic Flows**

Approach	Direction	Movement notation	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Nearside 0/1	Pro. Turning (%) A.M.	Pro. Turning (%) P.M.	Saturation Flow (pcu/hr)	Total Saturation Flow (pcu/hr)	Revised Saturation Flow (pcu/hr) A.M.	Revised Saturation Flow (pcu/hr) P.M.	Total Revised Saturation Flow (pcu/hr) A.M.	Total Revised Saturation Flow (pcu/hr) P.M.	A.M. Flow (pcu/hr)	A.M. y Value	A.M. Critical y	P.M. Flow (pcu/hr)	P.M. y Value	P.M. Critical y
Castle Peak Road - Yuen Long	N	↰	B	1	4.0	25	0	1	100%	100%	2015	2015	1900	1900	1900	1900	290	0.153		360	0.189	
	N	↑	B	1	3.3	0	0	0	0%	0%	2085	4170	2085	2085	4170	4170	745	0.357		630	0.302	
	N	↑	B	1	3.3	0	0	0	0%	0%	2085	0	2085	2085	0	0	745	0.357	0.357	630	0.302	0.302
Castle Peak Road - Yuen Long	N	↑	C	1,3	3.6	0	0	1	0%	0%	1975	4090	1975	1975	4090	4090	719	0.364		608	0.308	
	N	↑	C	1,3	3.6	0	0	0	0%	0%	2115	0	2115	2115	0	0	771	0.364		652	0.308	
Long Yat Road	S	↳	D1	2,3	3.0	25	0	1	100%	100%	1915	1915	1805	1805	1805	1805	10	0.006		20	0.011	
	S	↓	D2	2	3.0	0	0	0	0%	0%	2055	4110	2055	2055	4110	4110	183	0.089		160	0.078	
	S	↓	D2	2	3.0	0	0	0	0%	0%	2055	0	2055	2055	0	0	183	0.089		160	0.078	
Long Yat Road	S	↓	E	2	3.5	0	0	1	0%	0%	1965	4070	1965	1965	3940	3935	182	0.093		160	0.081	
	S	↓	E	2	3.5	0	15	0	66%	69%	2105	0	1975	1970	0	0	183	0.093	0.093	160	0.081	0.081
Castle Peak Road - Yuen Long	W	↳	G	3	3.0	0	15	0	100%	100%	2055	2055	1870	1870	1870	1870	190	0.102	0.127	270	0.144	0.149
	W	←	G	3	3.3	0	0	0	0%	0%	2085	2085	2085	2085	2085	2085	265	0.127		310	0.149	
	W	↳	M	1,3	3.2	20	0	1	100%	100%	1935	4010	1800	1800	3760	3760	531	0.295		570	0.316	
	W	↳	M	1,3	3.2	25	0	0	100%	100%	2075	0	1960	1960	0	0	579	0.295		620	0.316	

Pedestrian Crossing			
	Hp	2,3	Min. Crossing Time = 10Gm + 8FGm =18s
	Ip	1,3	Min. Crossing Time = 5Gm + 6FGm =11s
	Jp	2	Min. Crossing Time = 5Gm + 6FGm =11s
	Lp	1,2	Min. Crossing Time = 5Gm + 5FGm =10s
	Np	2	Min. Crossing Time = 5Gm + 7FGm =12s
	Op	1	Min. Crossing Time = 5Gm + 6FGm =11s
	Pp	1	Min. Crossing Time = 5Gm + 5FGm =10s

Notes:

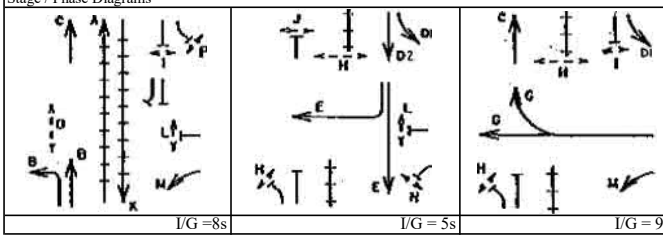
Traffic Flow (pcu / hr) AM(PM)



A.M. Check Phase	
εy	0.577
L (sec)	19
C (sec)	120
y pract.	0.758
R.C. (%)	31%

P.M. Check Phase	
εy	0.532
L (sec)	19
C (sec)	120
y pract.	0.758
R.C. (%)	42%

Stage / Phase Diagrams



I/G =8s I/G = 5s I/G = 9s

TRAFFIC SIGNALS CALCULATION Job No: 26016HK **CTA Consultants Ltd.**

Junction: **Castle Peak Road - Yuen Long / Long Yat Road (Jn H)**

Description: **2033 Reference Traffic Flows**

Approach	Direction	Movement notation	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Nearside 0/1	Pro. Turning (%) A.M.	Pro. Turning (%) P.M.	Saturation Flow (pcu/hr)	Total Saturation Flow (pcu/hr)	Revised Saturation Flow (pcu/hr) A.M.	Revised Saturation Flow (pcu/hr) P.M.	Total Revised Saturation Flow (pcu/hr) A.M.	Total Revised Saturation Flow (pcu/hr) P.M.	A.M. Flow (pcu/hr)	A.M. y Value	A.M. Critical y	P.M. Flow (pcu/hr)	P.M. y Value	P.M. Critical y
Castle Peak Road - Yuen Long	E	↑	B	1	3.5	20	0	1	100%	100%	1965	1965	1830	1830	1830	1830	30	0.016		30	0.016	
	E	→	A	1,2	3.5	0	0	0	0%	0%	2105	6315	2105	2105	6315	6315	640	0.304		498	0.237	
	E	→	A	1,2	3.5	0	0	0	0%	0%	2105	0	2105	2105	0	0	640	0.304		498	0.237	
	E	→	A	1,2	3.5	0	0	0	0%	0%	2105	0	2105	2105	0	0	640	0.304	0.304	498	0.237	0.237
Castle Peak Road - Yuen Long	W	↖	D	3	3.7	0	30	0	100%	100%	2120	2120	2020	2020	2020	2020	330	0.163		305	0.151	
Long Yat Road	S	↳	E	3,4	3.7	25	0	1	100%	100%	2145	4265	2025	2025	4045	4045	821	0.405	0.405	781	0.386	0.386
	S	↳	E	3,4	3.7	30	0	0	100%	100%	2120	0	2020	2020	0	0	819	0.405		779	0.386	
	S	↲	C	1,4	3.7	0	25	0	100%	100%	2120	2120	2000	2000	2000	2000	280	0.140		250	0.125	

Pedestrian Crossing			
	Fp	1,4	Min. Crossing Time = 5Gm + 10FGm =15s
	Gp	1,2	Min. Crossing Time = 5Gm + 17FGm =22s

Notes:

Traffic Flow (pcu / hr) AM(PM)

280(250)

1640(1560)

30(30)

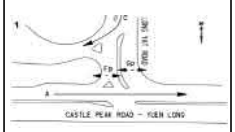
1920(1495)

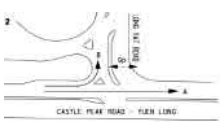
330(305)

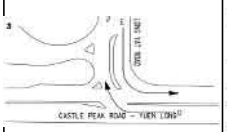
A.M. Check Phase	
εy	0.709
L (sec)	8
C (sec)	120
y pract.	0.840
R.C. (%)	18%

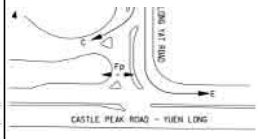
P.M. Check Phase	
εy	0.622
L (sec)	8
C (sec)	120
y pract.	0.840
R.C. (%)	35%

Stage / Phase Diagrams









I/G = 5s

I/G = 5s

TRAFFIC SIGNALS CALCULATION Job No: 26016HK **CTA Consultants Ltd.**

Junction: **Pok Oi Interchange (Yuen Long Highway Slip Road Northbound) (Jn I)**
Description: **2033 Reference Traffic Flows**

Approach	Direction	Movement notation	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Nearside 0/1	Pro. Turning (%) A.M.	Pro. Turning (%) P.M.	Revised Saturation Flow (pcu/hr) A.M.	Revised Saturation Flow (pcu/hr) P.M.	A.M. Peak Flow (pcu/hr)	A.M. Peak y Value	A.M. Peak Critical y	P.M. Peak Flow (pcu/hr)	P.M. Peak y Value	P.M. Peak Critical y
Yuen Long Highway	N		D	2	5.00	25	0	1	45%	59%	2060	2045	649	0.315	0.315	561	0.274	0.275
Slip Road	N		D	2	5.00	0	0	0	0%	0%	2255	2255	711	0.315		619	0.275	
Pok Oi Interchange	W	←	C	1	5.00	0	0	1	0%	0%	2115	2115	907	0.429	0.429	1036	0.490	0.490
	W	←	C	1	5.00	0	0	0	0%	0%	2255	2255	968	0.429		1104	0.490	

Notes:

Traffic Flow (pcu / hr) [AM (PM)]

← 1875(2140)

↰ 290(330) ↑ 1070(850)

Check Phase		Check Phase	
εy	0.744	εy	0.764
L (sec)	12	L (sec)	12
C (sec)	110	C (sec)	110
y pract.	0.802	y pract.	0.802
R.C. (%)	8%	R.C. (%)	5%

Stage / Phase Diagrams

1	2			
C ← ⊤	D ↖ ↑ ⊢			
I/G = 7	I/G = 7			

TRAFFIC SIGNALS CALCULATION Job No: 26016HK **CTA Consultants Ltd.**

Junction: **Pok Oi Interchange (Yuen Long Highway Slip Road Southbound) (Jn I)**
Description: **2033 Reference Traffic Flows**

Approach	Direction	Movement notation	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Nearside 0/1	Pro. Turning (%) A.M.	Pro. Turning (%) P.M.	Revised Saturation Flow (pcu/hr) A.M.	Revised Saturation Flow (pcu/hr) P.M.	A.M. Peak Flow (pcu/hr)	A.M. Peak y Value	A.M. Peak Critical y	P.M. Peak Flow (pcu/hr)	P.M. Peak y Value	P.M. Peak Critical y
Pok Oi Interchange	E	→	B	2	5.00	0	0	1	0%	0%	2115	2115	876	0.414	0.414	745	0.352	0.352
	E	→	B	2	5.00	0	0	0	0%	0%	2255	2255	934	0.414		795	0.352	
Yuen Long Highway Slip Road	S	↳	A	1	5.00	50	0	1	0%	0%	2115	2115	682	0.323	0.323	854	0.404	0.404
	S	↓	A	1	5.00	0	0	0	0%	0%	2255	2255	728	0.323		911	0.404	

Notes:

Traffic Flow (pcu / hr) [AM (PM)]

1410(1765) ↓ 0(0) ↳

1810(1540) →

Check Phase		Check Phase	
εy	0.737	εy	0.756
L (sec)	12	L (sec)	12
C (sec)	110	C (sec)	110
y pract.	0.802	y pract.	0.802
R.C. (%)	9%	R.C. (%)	6%

Stage / Phase Diagrams

1	2			
A	B			
I/G = 7	I/G = 7			

TRAFFIC SIGNALS CALCULATION Job No: 26016HK **CTA Consultants Ltd.**

Junction: **Yuen Long On Lok Road / Long Yip Street / Po Yip Street / Yuen Long Tung Tai Street (Jn A)**

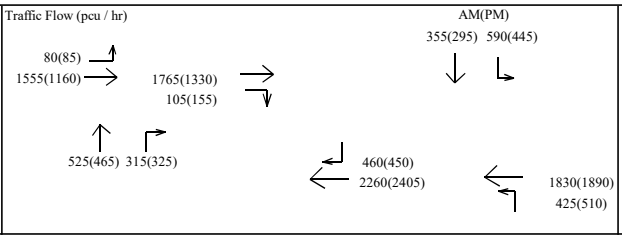
Description: **2033 Design Traffic Flows**

Approach	Direction	Movement notation	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Nearside 0/1	Pro. Turning (%) A.M.	Pro. Turning (%) P.M.	Saturation Flow (pcu/hr)	Total Saturation Flow (pcu/hr)	Revised Saturation Flow (pcu/hr) A.M.	Revised Saturation Flow (pcu/hr) P.M.	Total Revised Saturation Flow (pcu/hr) A.M.	Total Revised Saturation Flow (pcu/hr) P.M.	A.M. Flow (pcu/hr)	A.M. y Value	A.M. Critical y	P.M. Flow (pcu/hr)	P.M. y Value	P.M. Critical y
Po Yip Street	S		A	1	3.5	35	0	1	100%	100%	1965	6175	1885	1885	6015	6020	296	0.157	0.157	232	0.123	0.123
	S		A	1	3.5	35	0	0	92%	85%	2105	0	2025	2030	0	0	318	0.157		250	0.123	
	S		A	1	3.5	0	0	0	0%	0%	2105	0	2105	2105	0	0	331	0.157		259	0.123	
Po Yip Street	S		E	1	3.5	0	15	0	100%	100%	2105	4210	1915	1915	3830	3830	230	0.120		225	0.117	
	S		E	1	3.5	0	15	0	100%	100%	2105	0	1915	1915	0	0	230	0.120		225	0.117	
Long Yip Street	E		B	2	3.3	40	0	0	15%	21%	2085	6255	2075	2070	6245	6240	543	0.262	0.262	413	0.199	
	E		B	2	3.3	0	0	0	0%	0%	2085	0	2085	2085	0	0	546	0.262		416	0.200	
	E		B	2	3.3	0	0	0	0%	0%	2085	0	2085	2085	0	0	546	0.262		416	0.200	
Long Yip Street	E		D	2,3,4	3.3	0	0	0	0%	0%	2085	4170	2085	2085	4170	4170	883	0.423		665	0.319	
	E		D	2,3,4	3.3	0	0	0	0%	0%	2085	0	2085	2085	0	0	883	0.423		665	0.319	
	E		D	2,3,4	3.3	0	15	0	100%	100%	2085	2085	1895	1895	1895	1895	105	0.055		155	0.082	
Po Yip Street	N		C	3,4	5.5	0	0	1	0%	0%	2165	4470	2165	2165	4310	4295	422	0.195	0.195	398	0.184	
	N		C	3,4	5.5	0	15	0	75%	83%	2305	0	2145	2130	0	0	418	0.195		392	0.184	
Yuen Long On Lok Road	W		F	2,3,4	3.5	0	0	1	0%	0%	1965	6175	1965	1965	6175	6175	719	0.366		765	0.389	0.389
	W		F	2,3,4	3.5	0	0	0	0%	0%	2105	0	2105	2105	0	0	770	0.366		820	0.389	
	W		F	2,3,4	3.5	0	0	0	0%	0%	2105	0	2105	2105	0	0	770	0.366		820	0.389	
Yuen Long On Lok Road	W		G	2,3	3.5	0	0	0	0%	0%	2105	6315	2105	2105	6315	6315	610	0.290		630	0.299	
	W		G	2,3	3.5	0	0	0	0%	0%	2105	0	2105	2105	0	0	610	0.290		630	0.299	
	W		G	2,3	3.5	0	0	0	0%	0%	2105	0	2105	2105	0	0	610	0.290		630	0.299	
Yuen Long Tung Tai Street	N		H	1,4	3.5	15	0	0	100%	100%	2105	4210	1915	1915	3830	3830	213	0.111		255	0.133	
	N		H	1,4	3.5	15	0	0	100%	100%	2105	0	1915	1915	0	0	213	0.111		255	0.133	

Pedestrian Crossing			
	Ip	2,3,4	Min. Crossing Time = 9Gm + 10FGm =19s
	Jp	1	Min. Crossing Time = 8Gm + 9Gm =17s
	Kp	2,3,4	Min. Crossing Time = 10Gm + 12FGm =22s
	Lp	1	Min. Crossing Time = 8Gm + 9FGm =17s
	Mp	1	Min. Crossing Time = 8Gm + 9FGm =17s
	Np	2,3	Min. Crossing Time = 10Gm + 12FGm =22s

Notes:

Traffic Flow (pcu / hr) AM(PM)



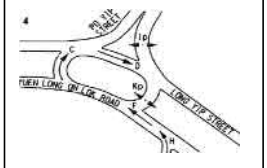
A.M. Check Phase	
Εy	0.614
L (sec)	21
C (sec)	120
y pract.	0.743
R.C. (%)	21%

P.M. Check Phase	
Εy	0.512
L (sec)	21
C (sec)	120
y pract.	0.743
R.C. (%)	45%

Stage / Phase Diagrams

I/G =7s

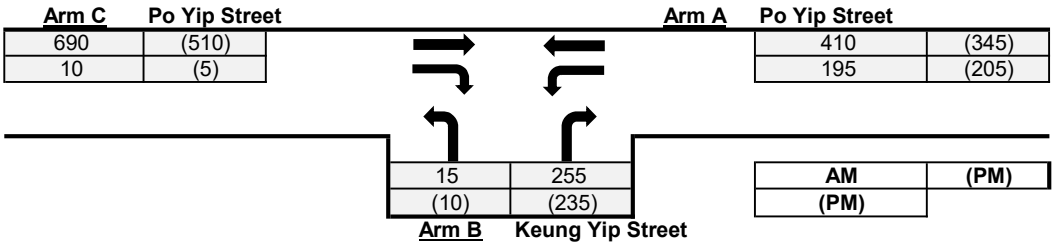
I/G = 7s



I/G =10s

Priority Junction Calculation

Junction :	Po Yip Street / Keung Yip Street (Jn B)	Job No.:	26016HK
Scenario :	2033 Design Traffic Flows		



The predictive equations of capacity of movement are:

Q-BA = D(627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB))
Q-BC = E(745 - Y(0.364q-AC + 0.144q-AB))
Q-CB = F(745 - 0.364Y(q-AC + q-AB))

The geometric parameters represented by D, E, F are:

D = (1 + 0.094(w-BA - 3.65))(1 + 0.0009(V-rBA - 120))(1 + 0.0006(V-IBA - 150))
E = (1 + 0.094(w-BC - 3.65))(1 + 0.0009(V-rBC - 120))
F = (1 + 0.094(w-CB - 3.65))(1 + 0.0009(V-rCB - 120))

where
Y = 1 - 0.0345W
q-AB, etc = the design flow of movement AB, etc
W = major road width
W-CR = central reserve width
w-BA, etc = lane width to vehicle
v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc
v-IBA = visibility to the left for waiting vehicles in stream BA, etc

Geometry :

Input						Calculated	
W	17	V-rBA	80	w-BA	3.5	D	0.921
W-CR	1.5	V-IBA	98	w-BC	3.5	E	0.955
C-B blocked C-A, residual width <2.5m? (Yes: 1, No: 0)	0	V-rBC	85	w-CB	4	F	1.154
Minor Road Share LT&RT? (Yes: 1, No: 0)	1	V-rCB	250			Y	0.414

Analysis :

Traffic Flow pcu/hr	AM	PM	Capacity pcu/hr	AM	PM	
q-CA	690	510	Q-BA	467	492	
q-CB	10	5	Q-BC	641	650	
q-AB	195	205	Q-CB	754	764	
q-AC	410	345	Q-CA	N/A	N/A	(If C-B blocked C-A)
q-BA	255	235	Q-BAC	474	497	(If Minor Road Share LT&RT)
q-BC	15	10				
f	0.056	0.041				

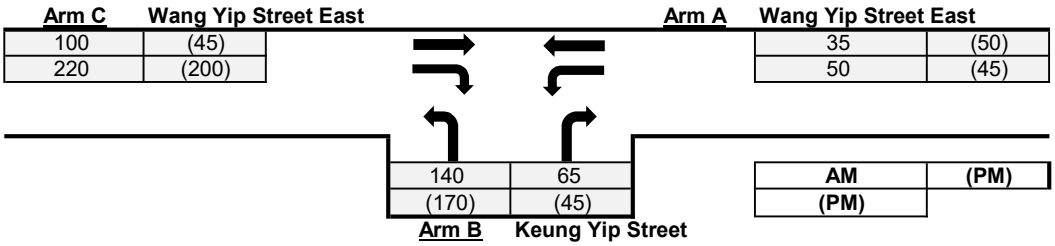
Results :

Ratio of Flow-to-Capacity	AM	PM
B-A	N/A	N/A
B-C	N/A	N/A
C-B	0.01	0.01
C-A	N/A	N/A
B-AC	0.57	0.49
Critical DFC	**0.57**	**0.49**

CTA Consultants Ltd.

Priority Junction Calculation

Junction :	Wang Yip Street East/ Keung Yip Street (Jn C)	Job No.:	26016HK
Scenario :	2033 Design Traffic Flows		



The predictive equations of capacity of movement are:

Q-BA = D(627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB))
Q-BC = E(745 - Y(0.364q-AC + 0.144q-AB))
Q-CB = F(745 - 0.364Y(q-AC + q-AB))

The geometric parameters represented by D, E, F are:

D = (1 + 0.094(w-BA - 3.65))(1 + 0.0009(V-rBA - 120))(1 + 0.0006(V-IBA - 150))
E = (1 + 0.094(w-BC - 3.65))(1 + 0.0009(V-rBC - 120))
F = (1 + 0.094(w-CB - 3.65))(1 + 0.0009(V-rCB - 120))

where
Y = 1 - 0.0345W
q-AB, etc = the design flow of movement AB, etc
W = major road width
W-CR = central reserve width
w-BA, etc = lane width to vehicle
v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc
v-IBA = visibility to the left for waiting vehicles in stream BA, etc

Geometry :

Input						Calculated	
W	10	V-rBA	80	w-BA	3.5	D	0.891
W-CR	0	V-IBA	45	w-BC	3.5	E	0.955
C-B blocked C-A, residual width <2.5m? (Yes: 1, No: 0)	1	V-rBC	85	w-CB	5	F	1.259
Minor Road Share LT&RT? (Yes: 1, No: 0)	1	V-rCB	250			Y	0.655

Analysis :

Traffic Flow pcu/hr	AM	PM	Capacity pcu/hr	AM	PM	
q-CA	100	45	Q-BA	467	477	
q-CB	220	200	Q-BC	699	696	
q-AB	50	45	Q-CB	912	909	
q-AC	35	50	Q-CA	1366	1404	(If C-B blocked C-A)
q-BA	65	45	Q-BAC	604	635	(If Minor Road Share LT&RT)
q-BC	140	170				
f	0.683	0.791				

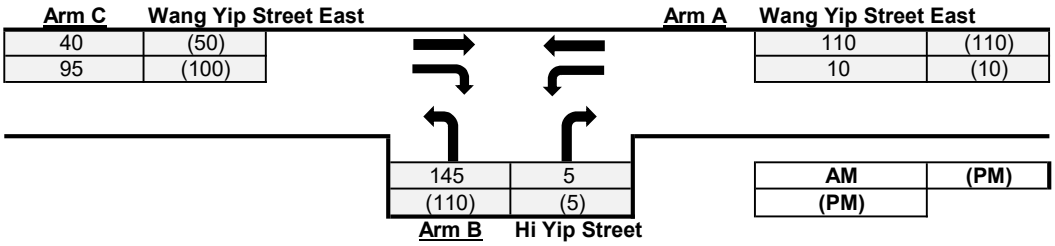
Results :

Ratio of Flow-to-Capacity	AM	PM
B-A	N/A	N/A
B-C	N/A	N/A
C-B	0.24	0.22
C-A	0.07	0.03
B-AC	0.34	0.34
Critical DFC	**0.34**	**0.34**

CTA Consultants Ltd.

Priority Junction Calculation

Junction :	Wang Yip Street East/ Hi Yip Street (Jn D)	Job No.:	26016HK
Scenario :	2033 Design Traffic Flows		



The predictive equations of capacity of movement are:

Q-BA = D(627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB))
Q-BC = E(745 - Y(0.364q-AC + 0.144q-AB))
Q-CB = F(745 - 0.364Y(q-AC + q-AB))

The geometric parameters represented by D, E, F are:

D = (1 + 0.094(w-BA - 3.65))(1 + 0.0009(V-rBA - 120))(1 + 0.0006(V-IBA - 150))
E = (1 + 0.094(w-BC - 3.65))(1 + 0.0009(V-rBC - 120))
F = (1 + 0.094(w-CB - 3.65))(1 + 0.0009(V-rCB - 120))

where
Y = 1 - 0.0345W
q-AB, etc = the design flow of movement AB, etc
W = major road width
W-CR = central reserve width
w-BA, etc = lane width to vehicle
v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc
v-IBA = visibility to the left for waiting vehicles in stream BA, etc

Geometry :

Input						Calculated	
W	10	V-rBA	37	w-BA	3.3	D	0.838
W-CR	0	V-IBA	45	w-BC	3.3	E	0.900
C-B blocked C-A, residual width <2.5m? (Yes: 1, No: 0)	1	V-rBC	43	w-CB	5	F	1.121
Minor Road Share LT&RT? (Yes: 1, No: 0)	1	V-rCB	114			Y	0.655

Analysis :

Traffic Flow pcu/hr	AM	PM	Capacity pcu/hr	AM	PM	
q-CA	40	50	Q-BA	471	468	
q-CB	95	100	Q-BC	646	646	
q-AB	10	10	Q-CB	803	803	
q-AC	110	110	Q-CA	1587	1576	(If C-B blocked C-A)
q-BA	5	5	Q-BAC	638	636	(If Minor Road Share LT&RT)
q-BC	145	110				
f	0.967	0.957				

Results :

Ratio of Flow-to-Capacity	AM	PM
B-A	N/A	N/A
B-C	N/A	N/A
C-B	0.12	0.12
C-A	0.03	0.03
B-AC	0.24	0.18
Critical DFC	**0.24**	**0.18**

CTA Consultants Ltd.

TRAFFIC SIGNALS CALCULATION Job No: 26016HK **CTA Consultants Ltd.**

Junction: **Yuen Long On Lok Road / Long Yip Street / Ma Wang Road / Wang Tat Road / Wang Lok Street (Jn E)**

Description: **2033 Design Traffic Flows**

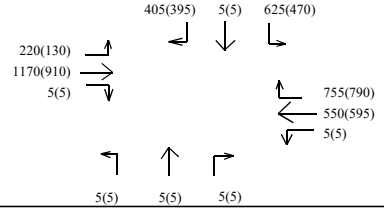
Approach	Direction	Movement notation	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Nearside 0/1	Pro. Turning (%) A.M.	Pro. Turning (%) P.M.	Saturation Flow (pcu/hr)	Total Saturation Flow (pcu/hr)	Revised Saturation Flow (pcu/hr) A.M.	Revised Saturation Flow (pcu/hr) P.M.	Total Revised Saturation Flow (pcu/hr) A.M.	Total Revised Saturation Flow (pcu/hr) P.M.	A.M. Flow (pcu/hr)	A.M. y Value	A.M. Critical y	P.M. Flow (pcu/hr)	P.M. y Value	P.M. Critical y
Long Yip Street	W		A	1	3.0	0	27	0	100%	100%	2055	4110	1945	1945	3890	3890	378	0.194	0.194	395	0.203	0.203
	W		A	1	3.0	0	27	0	100%	100%	2055	4110	1945	1945	3890	3890	378	0.194		395	0.203	
	W		A	1	3.0	0	0	0	0%	0%	2055	4110	2055	2055	4110	4110	275	0.134		298	0.145	
	W		A	1	3.0	0	0	0	0%	0%	2055	0	2055	2055	0	0	275	0.134		298	0.145	
	W		A	1	3.0	10	0	1	100%	100%	1915	1915	1665	1665	1665	1665	5	0.003		5	0.003	
Wang Lok Street	N		D	2	3.0	0	25	0	100%	100%	2055	2055	1940	1940	1940	1940	5	0.003		5	0.003	
	N		D	2	3.0	20	0	1	50%	50%	1915	1915	1845	1845	1845	1845	10	0.005		10	0.005	
Wang Tat Road	E		C	3	3.5	16	0	1	100%	100%	1965	8280	1795	1795	8105	8105	220	0.123		130	0.072	
	E		C	3	3.5	18	0	0	0%	0%	2105	0	2105	2105	0	0	392	0.186	0.186	305	0.145	0.145
	E		C	3	3.5	0	0	0	0%	0%	2105	0	2105	2105	0	0	392	0.186		305	0.145	
	E		C	3	3.5	0	15	0	1%	2%	2105	0	2100	2100	0	0	391	0.186		305	0.145	
Wang Lok Street	S		B	4	3.5	25	0	1	100%	100%	1965	6175	1855	1855	5850	5850	328	0.177	0.177	276	0.149	0.149
	S		B	4	3.5	25	27	0	4% / 14	6% / 33'	2105	0	1990	1990	0	0	352	0.177		296	0.149	
	S		B	4	3.5	0	30	0	100%	100%	2105	0	2005	2005	0	0	355	0.177		298	0.149	

Pedestrian Crossing

Ep	3	Min. Crossing Time = 6Gm + 12FGm =18s
Fp	1,2,4	Min. Crossing Time = 10Gm + 15FGm =25s
Gp	4	Min. Crossing Time = 7Gm + 11FGm =18s
Hp	1,2,3	Min. Crossing Time = 8Gm + 10FGm =18s
Ip	2	Min. Crossing Time = 7Gm + 7FGm =14s
Jp	1,3,4	Min. Crossing Time = 5Gm + 6FGm =11s

Notes:

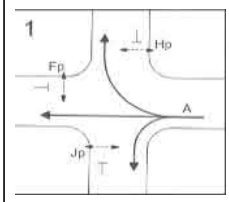
Traffic Flow (pcu / hr) AM(PM)



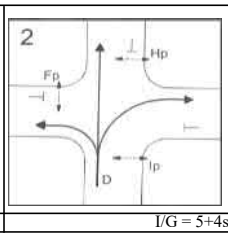
A.M. Check Phase	
εy	0.557
L (sec)	29
C (sec)	120
y pract.	0.683
R.C. (%)	22%

P.M. Check Phase	
εy	0.497
L (sec)	29
C (sec)	120
y pract.	0.683
R.C. (%)	37%

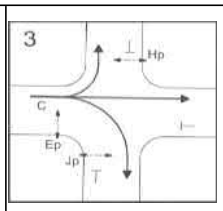
Stage / Phase Diagrams



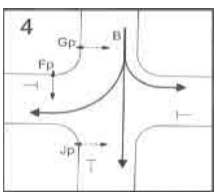
I/G =7s



I/G = 5+4s

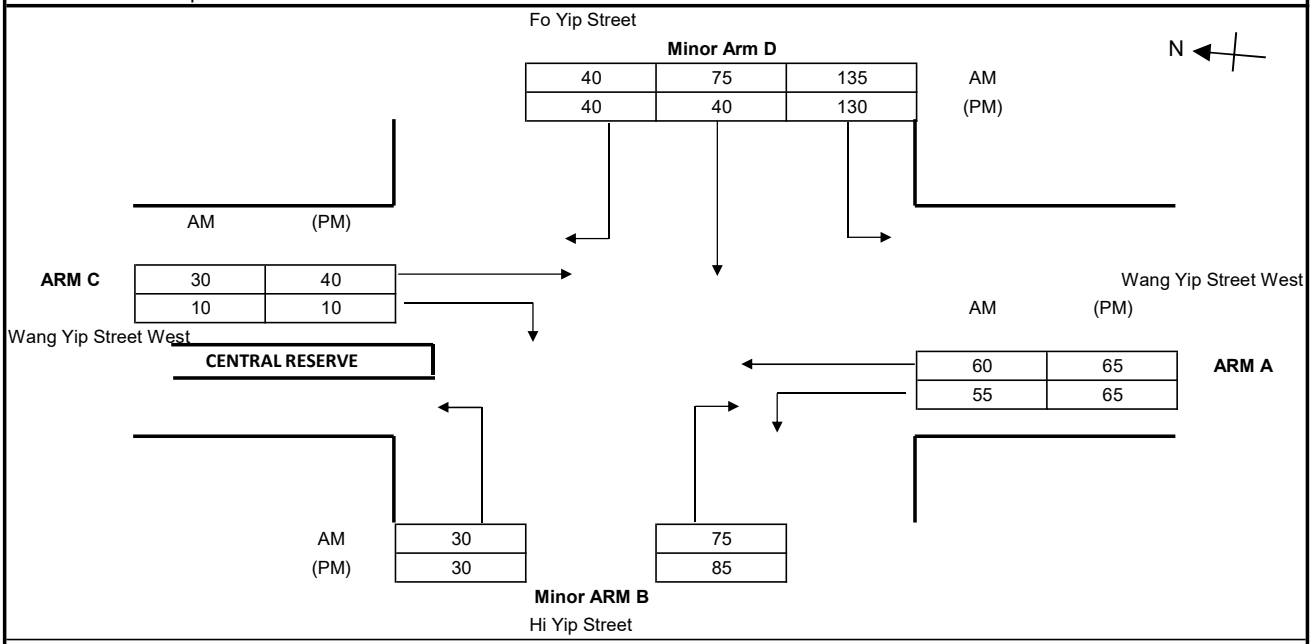


I/G = 8s



I/G =9s

Job Title:			
Junction:	Fo Yip Street / Wang Yip Street West / Hi Yip Street (Jn F)		
Scheme:			Ref. No.:
Year:	2033 Design Traffic Flows	Job No.: 26016HK	Rev.: -
ARM A:	Wang Yip Street West		
ARM B:	Hi Yip Street		
ARM C:	Wang Yip Street West		
ARM D:	Fo Yip Street		



GEOMETRY					ARM B		ARM D
Major road width	W	10.00	Lane widths		w(b-a)	2.60	w(d-c) 2.20
Central Reserve width	Wcr	0.00			w(b-c)	2.60	w(d-a) 2.20
					w(c-b)	2.05	w(a-d) 2.05
Visibilities	Vr(b-a)	40	Vr(d-c)	55	D	0.78	D 0.75
	Vl(b-a)	40	Vl(d-c)	30	E	0.84	E 0.81
	Vr(b-c)	45	Vr(d-a)	55	F	0.95	F 0.87
	Vr(c-b)	250	Vr(a-d)	150	Y	0.66	Y 0.66

		Arm B		Arm D	
ANALYSIS		AM PEAK	(PM) PEAK	AM PEAK	(PM) PEAK
TRAFFIC FLOWS	q(c-a)	165	170	q(a-c) 90	95
	q(c-b)	10	10	q(a-d) 0	0
	q(a-b)	55	65	q(c-d) 0	0
	q(a-c)	100	105	q(c-a) 105	125
	q(b-a)	75	85	q(d-c) 115	80
	q(b-c)	30	30	q(d-a) 135	130
	f	0.29	0.26	f 0.54	0.62
CAPACITIES	Q(b-a)	445	443	Q(d-c) 444	440
	Q(b-c)	602	600	Q(d-a) 585	582
	Q(c-b)	672	669	Q(a-d) 628	624
	Q(b-ac)	481	475	Q(d-ca) 511	518
	Q(c-a)	1773	1773	Q(a-c) 1800	1800
RFC's	b-a	0.169	0.192	d-c 0.259	0.182
	b-c	0.050	0.050	d-a 0.231	0.224
	c-b	0.015	0.015	a-d 0.000	0.000
	b-ac	0.218	0.242	d-ca 0.490	0.405
	c-a	0.093	0.096	a-c 0.050	0.053

	AM	(PM)
Worst RFC	**0.490**	**0.405**

Where Vl and Vr are visibility distances to the left or right of the respective streams

D = (1+0.094(w(b-a)-3.65))(1+0.0009(Vr(b-a)-120))(1+0.0006(Vl(b-a)-150))

E = (1+0.094(w(b-c)-3.65))(1+0.0009(Vr(b-c)-120))

F = (1+0.094(w(c-b)-3.65))(1+0.0009(Vr(c-b)-120))

Y = 1-0.0345W

f = proportion of minor traffic turning left

Q (b-ac) = Q(b-c)*Q(b-a)/(1-f)*Q(b-c)+f*Q(b-a)

Capacity of combined streams
- in accordance with TPDM V2.4

T.P.D.M.V.2.4
Appendix 1

Calculated by:	Date: Jul-26	Checked by:

TRAFFIC SIGNALS CALCULATION Job No: 26016HK **CTA Consultants Ltd.**

Junction: **Castle Peak Road - Yuen Long / Yuen Long On Lok Road / Long Yat Road (Jn G)**

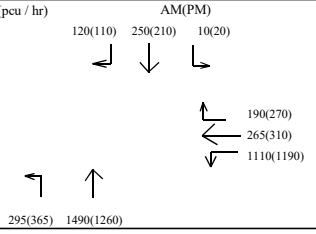
Description: **2033 Design Traffic Flows**

Approach	Direction	Movement notation	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Nearside 0/1	Pro. Turning (%) A.M.	Pro. Turning (%) P.M.	Saturation Flow (pcu/hr)	Total Saturation Flow (pcu/hr)	Revised Saturation Flow (pcu/hr) A.M.	Revised Saturation Flow (pcu/hr) P.M.	Total Revised Saturation Flow (pcu/hr) A.M.	Total Revised Saturation Flow (pcu/hr) P.M.	A.M. Flow (pcu/hr)	A.M. y Value	A.M. Critical y	P.M. Flow (pcu/hr)	P.M. y Value	P.M. Critical y
Castle Peak Road - Yuen Long	N	↰	B	1	4.0	25	0	1	100%	100%	2015	2015	1900	1900	1900	1900	295	0.155		365	0.192	
	N	↑	B	1	3.3	0	0	0	0%	0%	2085	4170	2085	2085	4170	4170	745	0.357		630	0.302	
	N	↑	B	1	3.3	0	0	0	0%	0%	2085	0	2085	2085	0	0	745	0.357	0.357	630	0.302	0.302
Castle Peak Road - Yuen Long	N	↑	C	1,3	3.6	0	0	1	0%	0%	1975	4090	1975	1975	4090	4090	719	0.364		608	0.308	
	N	↑	C	1,3	3.6	0	0	0	0%	0%	2115	0	2115	2115	0	0	771	0.364		652	0.308	
Long Yat Road	S	↳	D1	2,3	3.0	25	0	1	100%	100%	1915	1915	1805	1805	1805	1805	10	0.006		20	0.011	
	S	↓	D2	2	3.0	0	0	0	0%	0%	2055	4110	2055	2055	4110	4110	185	0.090		160	0.078	
	S	↓	D2	2	3.0	0	0	0	0%	0%	2055	0	2055	2055	0	0	185	0.090		160	0.078	
Long Yat Road	S	↓	E	2	3.5	0	0	1	0%	0%	1965	4070	1965	1965	3940	3935	184	0.094		160	0.081	
	S	⇇	E	2	3.5	0	15	0	65%	69%	2105	0	1975	1970	0	0	186	0.094	0.094	160	0.081	0.081
Castle Peak Road - Yuen Long	W	↱	G	3	3.0	0	15	0	100%	100%	2055	2055	1870	1870	1870	1870	190	0.102	0.127	270	0.144	0.149
	W	←	G	3	3.3	0	0	0	0%	0%	2085	2085	2085	2085	2085	2085	265	0.127		310	0.149	
	W	↳	M	1,3	3.2	20	0	1	100%	100%	1935	4010	1800	1800	3760	3760	531	0.295		570	0.316	
	W	↳	M	1,3	3.2	25	0	0	100%	100%	2075	0	1960	1960	0	0	579	0.295		620	0.316	

Pedestrian Crossing			
	Hp	2,3	Min. Crossing Time = 10Gm + 8FGm =18s
	Ip	1,3	Min. Crossing Time = 5Gm + 6FGm =11s
	Jp	2	Min. Crossing Time = 5Gm + 6FGm =11s
	Lp	1,2	Min. Crossing Time = 5Gm + 5FGm =10s
	Np	2	Min. Crossing Time = 5Gm + 7FGm =12s
	Op	1	Min. Crossing Time = 5Gm + 6FGm =11s
	Pp	1	Min. Crossing Time = 5Gm + 5FGm =10s

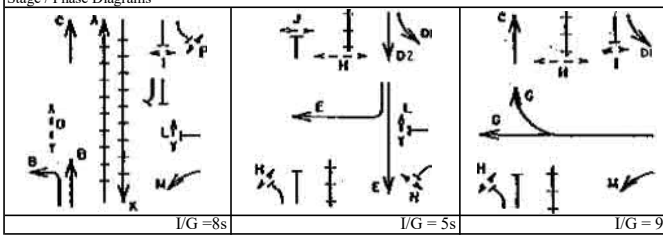
Notes:

Traffic Flow (pcu / hr) AM(PM)



A.M. Check Phase		P.M. Check Phase	
εy	0.578	εy	0.532
L (sec)	19	L (sec)	19
C (sec)	120	C (sec)	120
y pract.	0.758	y pract.	0.758
R.C. (%)	31%	R.C. (%)	42%

Stage / Phase Diagrams



I/G =8s I/G = 5s I/G = 9s

TRAFFIC SIGNALS CALCULATION Job No: 26016HK **CTA Consultants Ltd.**

Junction: **Castle Peak Road - Yuen Long / Long Yat Road (Jn H)**

Description: **2033 Design Traffic Flows**

Approach	Direction	Movement notation	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Nearside 0/1	Pro. Turning (%) A.M.	Pro. Turning (%) P.M.	Saturation Flow (pcu/hr)	Total Saturation Flow (pcu/hr)	Revised Saturation Flow (pcu/hr) A.M.	Revised Saturation Flow (pcu/hr) P.M.	Total Revised Saturation Flow (pcu/hr) A.M.	Total Revised Saturation Flow (pcu/hr) P.M.	A.M. Flow (pcu/hr)	A.M. y Value	A.M. Critical y	P.M. Flow (pcu/hr)	P.M. y Value	P.M. Critical y
Castle Peak Road - Yuen Long	E	↰	B	1	3.5	20	0	1	100%	100%	1965	1965	1830	1830	1830	1830	30	0.016		30	0.016	
	E	→	A	1,2	3.5	0	0	0	0%	0%	2105	6315	2105	2105	6315	6315	658	0.313		507	0.241	
	E	→	A	1,2	3.5	0	0	0	0%	0%	2105	0	2105	2105	0	0	658	0.313		507	0.241	
	E	→	A	1,2	3.5	0	0	0	0%	0%	2105	0	2105	2105	0	0	658	0.313	0.313	507	0.241	0.241
Castle Peak Road - Yuen Long	W	↑	D	3	3.7	0	30	0	100%	100%	2120	2120	2020	2020	2020	2020	330	0.163		305	0.151	
Long Yat Road	S	↳	E	3,4	3.7	25	0	1	100%	100%	2145	4265	2025	2025	4045	4045	821	0.405	0.405	781	0.386	0.386
	S	↳	E	3,4	3.7	30	0	0	100%	100%	2120	0	2020	2020	0	0	819	0.405		779	0.386	
	S	↲	C	1,4	3.7	0	25	0	100%	100%	2120	2120	2000	2000	2000	2000	285	0.143		250	0.125	

Pedestrian Crossing

Fp	1,4	Min. Crossing Time = 5Gm + 10FGm =15s	
Gp	1,2	Min. Crossing Time = 5Gm + 17FGm =22s	

Notes:

Traffic Flow (pcu / hr) AM(PM)

285(250)

1640(1560)

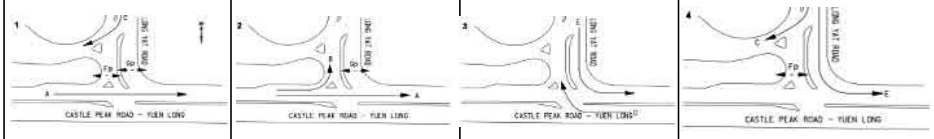
30(30)

1975(1520)

330(305)

A.M. Check Phase		P.M. Check Phase	
εy	0.718	εy	0.626
L (sec)	8	L (sec)	8
C (sec)	120	C (sec)	120
y pract.	0.840	y pract.	0.840
R.C. (%)	17%	R.C. (%)	34%

Stage / Phase Diagrams



I/G = 5s I/G = 5s

TRAFFIC SIGNALS CALCULATION Job No: 26016HK **CTA Consultants Ltd.**

Junction: **Pok Oi Interchange (Yuen Long Highway Slip Road Northbound) (Jn I)**
Description: **2033 Design Traffic Flows**

Approach	Direction	Movement notation	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Nearside 0/1	Pro. Turning (%) A.M.	Pro. Turning (%) P.M.	Revised Saturation Flow (pcu/hr) A.M.	Revised Saturation Flow (pcu/hr) P.M.	A.M. Peak Flow (pcu/hr)	A.M. Peak y Value	A.M. Peak Critical y	P.M. Peak Flow (pcu/hr)	P.M. Peak y Value	P.M. Peak Critical y
Yuen Long Highway	N		D	2	5.00	25	0	1	45%	59%	2060	2045	649	0.315	0.315	561	0.274	0.275
Slip Road	N		D	2	5.00	0	0	0	0%	0%	2255	2255	711	0.315		619	0.275	
Pok Oi Interchange	W	←	C	1	5.00	0	0	1	0%	0%	2115	2115	915	0.432	0.432	1043	0.493	0.493
	W	←	C	1	5.00	0	0	0	0%	0%	2255	2255	975	0.432		1112	0.493	

Notes:

Traffic Flow (pcu / hr) [AM (PM)]

← 1890(2155)

↰ 290(330) ↑ 1070(850)

Check Phase		Check Phase	
εy	0.748	εy	0.768
L (sec)	12	L (sec)	12
C (sec)	110	C (sec)	110
y pract.	0.802	y pract.	0.802
R.C. (%)	7%	R.C. (%)	4%

Stage / Phase Diagrams

1	2			
C ←	D ↖ ↑ ⊢			
I/G = 7	I/G = 7			

TRAFFIC SIGNALS CALCULATION Job No: 26016HK **CTA Consultants Ltd.**

Junction: **Pok Oi Interchange (Yuen Long Highway Slip Road Southbound) (Jn I)**
Description: **2033 Design Traffic Flows**

Approach	Direction	Movement notation	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Nearside 0/1	Pro. Turning (%) A.M.	Pro. Turning (%) P.M.	Revised Saturation Flow (pcu/hr) A.M.	Revised Saturation Flow (pcu/hr) P.M.	A.M. Peak Flow (pcu/hr)	A.M. Peak y Value	A.M. Peak Critical y	P.M. Peak Flow (pcu/hr)	P.M. Peak y Value	P.M. Peak Critical y
Pok Oi Interchange	E	→	B	2	5.00	0	0	1	0%	0%	2115	2115	876	0.414	0.414	745	0.352	0.352
	E	→	B	2	5.00	0	0	0	0%	0%	2255	2255	934	0.414		795	0.352	
Yuen Long Highway Slip Road	S	↳	A	1	5.00	50	0	1	0%	0%	2115	2115	690	0.326	0.326	861	0.407	0.407
	S	↓	A	1	5.00	0	0	0	0%	0%	2255	2255	735	0.326		919	0.407	

Notes:

Traffic Flow (pcu / hr) [AM (PM)]

1425(1780) ↓ 0(0) ↳

1810(1540) →

Check Phase		Check Phase	
εy	0.740	εy	0.760
L (sec)	12	L (sec)	12
C (sec)	110	C (sec)	110
y pract.	0.802	y pract.	0.802
R.C. (%)	8%	R.C. (%)	6%

Stage / Phase Diagrams

1 — A

2 — B

I/G = 7 | I/G = 7

Appendix IV

Environmental Assessment

Prepared for

Star Success International Limited

Prepared by

Ramboll Hong Kong Limited

REDEVELOPMENT OF LAI SUN YUEN LONG CENTRE AT NOS. 21-35 WANG YIP STREET EAST, YLTL 362

ENVIRONMENTAL ASSESSMENT

Date	**July 2026**
Prepared by	**Coco MA** **Environmental Consultant**
Signed	
Approved by	**Calvin CHIU** **Technical Director**
Signed	
Project Reference	**GYULSYLCEI00**
Document No.	**R7175_V4.1**

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1. INTRODUCTION

1.1 Background

1.1.1 A residential development (the Proposed Development) has been proposed by Star Success International Limited (the project proponent) at Nos. 21-35 Wang Yip Street East, YLTL 362 (the Application Site). A rezoning application (no. Y/YL/16) to rezone the application site from "Other Specified Uses" (BUSINESS) under Yuen Long Outline Zoning Plan (OZP) (No. S/YL/25) to "Residential (Group E)2" was submitted to the Town Planning Board (TPB) for consideration. An environmental assessment (EA) report was prepared by Ramboll Hong Kong Limited based on a development scheme (comprising 2 residential towers and a clubhouse-cum-shop building) as one of the technical supporting documents (hereafter referred as EA1). According to the letter (Ref.: TPB/Y/YL/16) from TPB dated 10 Sep 2021, the application has been agreed.

1.1.2 Subsequent to the approved EA1 report, the development scheme has been finetuned with local revision of internal layout, relaxation on building height and inclusion of indoor area for social welfare purpose below residential towers while building disposition and shape are similar to the previous scheme. Due to the changes in the latest development scheme, the EA report (hereafter referred as EA2) is updated accordingly and was considered acceptable according to letter (Ref.: TPB/A/YL/304) from TPB dated 12 Jan 2024.

1.1.3 Approval condition (a) requires the submission of a revised noise impact assessment (NIA) and the implementation of the environmental mitigation measures to the satisfaction of the Director of Environmental Protection (DEP) or of the TPB. When compared to the master layout plan adopted in the approved planning application (No. A/YL/304) (EA2), the development scheme has been further finetuned with local revision of internal layout while the building disposition and shape are similar to the approved MLP. The traffic forecast has been revised due to the change of the completion year of the subject site. Westwood Hong & Associates Limited was commissioned by the applicant to prepare the revised NIA (hereafter referred as NIA1) for the proposed development for the finetuned development scheme with respect to the approval condition (a). According to the letter (Ref.: TPB/A/YL/30) from TPB dated 16 Dec 2025, the revised NIA report was considered as acceptable.

1.1.4 Recently, the development scheme adopted has been further finetuned. While the block disposition, orientation, shape, etc. are generally the same as before, the detailed layout has been revised. In addition, more number of storeys is now introduced with increased building height, number of flat units, etc. The clubhouse block design is also finetuned. Based on the latest schedule, the tentative completion year would be the same as NIA1.

1.1.5 Ramboll Hong Kong Limited is commissioned by the project proponent to provide environmental consultancy service to update the EA based on the latest development scheme while the design and mitigation measures, assessment approach, etc. generally follows that of EA1, EA2 and NIA1. This EA is prepared as a technical supporting document to demonstrate that the Proposed Development is environmentally acceptable by addressing potential environmental noise, air quality, water quality and waste impact arising from the proposed redevelopment for Section 16 planning application. A standalone sewerage impact assessment report is also prepared as another technical supporting document for the same application.

1.1.6 The design of master layout plan (MLP) and other technical information on the Proposed Development are provided by the Project Architect (DLN Architects Limited)

whereas the updated traffic forecast is provided by the Project Traffic Consultant (CTA Consultants Limited).

1.2 The Application Site and Its Environs

1.2.1 The Application Site is approximately 7,271m^2 and currently occupied by the Lai Sun Yuen Long Centre, which is an industrial building. Major carriageways surrounding the Application Site include Wang Yip Street East (west), Keung Yip Street (north), Po Yip Street (east), Long Yip Street & Yuen Long On Lok Road (south).

1.2.2 **Figure 1-1** shows the location of the Application Site and its environment.

1.3 The Proposed Development

1.3.1 The Proposed Development consists of 2 residential blocks (i.e. Tower 1 & 2), 3 storeys of clubhouse cum shop building, a non-residential G/IC facility and carpark. The clubhouse-cum-shop building is of 15m height and will be central air conditioned. The maximum building height (measured at the main roof of the towers) is approximately 112.7mPD.

1.3.2 The flat mix is adjusted and number of residential flat units is increased from 1004 (in NIA1 Scheme) to 1068. The original single-level basement carpark has been replaced by a two-storey above ground carpark occupying G/F and 1/F. Elevation of first residential floor is therefore revised from 15.70mPD (in EA1 Scheme) to 22.95mPD. The floor-to-floor height of all towers remains as 3.15m, except refuge floor (3.3m) and the top 4 floors (3.5m).

1.3.3 The tentative occupation year is 2030.

1.3.4 The MLP, floor plans and sections of the Proposed Development are shown in **Appendix 1-1**.

1.4 Appraisal of Environmental Impacts

1.4.1 In previous EA1 and EA2, the following environmental impacts have been evaluated:

- Air quality
- Road traffic noise
- Railway noise
- Fixed source noise
- Construction phase impact
- Sewerage impact

1.4.2 Sewerage impact assessment is prepared as a standalone report. Other environmental impacts have been addressed in this context.

1.4.3 Onsite survey has been conducted to identify any potential environmental pollution sources. The survey was conducted in January & November in 2020, January 2022 and February 2023. Updated (verification) survey has been conducted in April 2026 which confirms that the environmental condition is generally the same as observed before. Potential road traffic noise, railway noise, fixed sources noise and emission, vehicular emission and construction phase environmental impacts are appraised below.

Air Quality

1.4.4 The Application Site is surrounded by carriageways, including Long Yip Street and Yuen Long On Lok Road to its south, Po Yip Street to its east, Keung Yip Street to its northeast and Wang Yip Street East to its northwest. With reference to the Annual Traffic Census 2024 issued by Transport Department, Long Yip Street and Yuen Long On Lok Road are classified as Primary Distributor, whereas the other nearby road links are regarded as local distributor as per previous advice from TD (**Appendix 3-1**). The

potential air quality impact of the vehicular emission from the roads in the vicinity of the Application Site should be addressed with reference to the recommendations under HKPSG.

1.4.5 Shan Pui River, nallahs, Yuen Long Kau Hui Sewage Pumping Station, Ping Shun Street Refuse Collection Point, Sewage Treatment Work under Sol City, Tai Kiu Refuse Collection Point, Tung Tai Street Refuse Collection Point and Tai Wong Temple are found within the assessment area and the potential odour impact should be assessed.

1.4.6 According to the survey map and site survey result, designated industrial area is not found within 500m from the Application Site. There is also no industrial undertaking and chimney observed within 200m from the Application Site, resembling the observations in previous assessments. Therefore, air quality impact due to industrial operation on the Proposed Development is unlikely a concern (detailed in **Section 2**).

Road Traffic Noise Impact

1.4.7 The major road traffic noise source with respect to the Application Site is arising from Long Yip Street and Po Yip Street. Road traffic noise impact assessment has been conducted based on the latest development scheme and updated traffic forecast to address the potential road traffic noise impact with necessary noise mitigation measures proposed (detailed in **Section 3**).

Railway Noise Impact

1.4.8 The existing Tuen Ma Line (in the form of viaduct) is aligned on the southern side at around 40m away from the Application Site. As the Proposed Development consists of residential towers which are up to 27 storeys high, standard parapet of the existing viaducts would unlikely provide adequate protection. Thus, railway noise impact assessment has been conducted and detailed in **Section 4**. Necessary noise mitigation measures are proposed.

Fixed Sources Noise Impact

1.4.9 Site survey was conducted in January & November 2020, January 2022, February 2023 and updated in April 2026 to identify any environmental nuisance. Various fixed noise sources are identified within 300m from the Application Site, including garages, metal workshops, electrical substation, cooling towers and chillers, etc. They have been taken into account and the fixed source noise impact assessment is detailed in **Section 5**. Since the latest development scheme is generally the same as in the EA1 Scheme, the finding and conclusion is generally the same as well.

Water Quality Impact

1.4.10 The proposed development will be connected to public drainage and sewerage system for proper discharge of treated surface runoff and effluent. ProPECC PN 1/23 (which supersedes ProPECC PN 5/93) will be referenced and followed as also committed before in previous assessments. All surface runoff originated from the Application Site will be properly collected and drained via systems such as sand trap, oil interceptor, grease trap for treatment. The treated surface runoff will be discharged to the public drainage system. All sewage generated onsite will be discharged to public sewerage system. No adverse water quality impact during operation of the project is anticipated.

Construction Phase Environmental Impact

1.4.11 The major air quality impact during construction should be fugitive dust impact in relation to dusty activity and emission from dusty materials while there are other emissions as well such as SO_2/NO_2 due to use of diesel powered equipment. Best management practice and practical mitigation measures will be adopted where appropriate.

1.4.12 Construction noise is usually generated by using powered mechanical equipment. It will be controlled with reference to relevant technical memorandum. Best Management practice will be adopted where appropriate to suppress the impact.

1.4.13 For water quality aspect, during construction of the Proposed Development, water pollution is likely due to sediments, construction runoff and drainage, sewage effluent and liquid spillage if not mitigated. Best management practice will be adopted. No sewage effluent discharge will be allowed. ProPECC PN2/24 on construction site drainage will be observed and followed.

1.4.14 Waste generation during construction will be sorted and handled in compliance with the Waste Disposal Ordinance and regulations.

1.4.15 With adequate mitigation measures incorporated during construction of the project, no significant construction phase environmental impact is anticipated. Further discussion on construction phase environmental impact is also included in **Section 6**.

Operation Phase Waste Management

1.4.16 During the operation of the project, there will be waste generation from the residential, retail, clubhouse uses, etc. such as glass, metals, plastics, food wastes, textile, wood, household hazardous wastes and others. Adequate waste collection/storage facilities will be provided for collection and storage of sorted recyclable wastes (glass, paper, metal, plastic) to enable recycling. With reference to Plate 2.7 based on Waste Statistics for 2024, the per capita disposal rates of municipal solid waste, domestic waste, commercial & industrial waste are assumed to be respectively 1.40kg/person/day, 0.86kg/person/day and 0.53kg/person/day respectively (Plate 2.7 of Waste Statistics for 2024). Among domestic and commercial waste, the recovery rates are 22% and 48% respectively (Plate 3.2 of Waste Statistics for 2024).

1.4.17 Based on the Proposed Development with around 2777 residential population and 148 working population, there will be around 3213kg/day of waste generation (i.e. 0.86/(1-22%) x 2777 + 0.53/(1-48%) x 148). With adequate waste collection/storage facilities provided to segregate recyclable and non-recyclable wastes, the burden of waste treatment facilities in Hong Kong will be reduced. In addition, the applicant will explore in detailed design stage to collect food waste alongside these recyclable wastes mentioned above to further reduce waste generation.

1.4.18 Retail facilities are proposed in the development, and chemical waste may be generated from retail operations and maintenance. If chemical wastes are generated, it will be handled in accordance with the Code of Practice on the Packaging, Handling and Storage of Chemical Wastes. All chemical wastes will be collected by a licensed chemical waste collector and disposed of at the Chemical Waste Treatment Centre (CWTC) in Tsing Yi. Moreover, generation of other types of waste (such as clinical waste, etc.) is not anticipated from the Project during operation phase.

1.5 Organization of this Report

1.5.1 The report is structured as follows: -

- **Section 2** is an air quality impact assessment;
- **Section 3** is a road traffic noise impact assessment;
- **Section 4** is a railway noise impact assessment;
- **Section 5** is a fixed noise sources impact assessment;

- **Section 6** includes discussion of construction phase fugitive dust, noise, water quality and waste management issues
- **Section 7** is a concluding summary.

2. AIR QUALITY IMPACT ASSESSMENT

2.1 Introduction

2.1.1 This section identifies potential air quality impact arising from vehicular emission of the road carriageways and chimney emission (if any) from industrial stack surrounding the Application Site, as well as potential odour impact during the operation of proposed development.

2.2 Legislative Requirements and Evaluation Criteria

Assessment Criteria

2.2.1 The principal legislation for the management of air quality in Hong Kong is the *Air Pollution Control Ordinance (APCO)* (Cap. 311). The Hong Kong AQOs enacted on 11 April 2025 are listed in **Table 2-1** below.

Table 2-1 Hong Kong Air Quality Objectives

Pollutants	Average Time	Concentration Limit [i] (μg/m³)	No. of exceedances allowed per calendar year
Sulphur Dioxide (SO_2)	10-min	500	3
	24-Hour	40	3
Respirable suspended particulates (RSP) (PM_{10}) [ii]	24-Hour	75	9
	Annual	30	NA
Fine suspended Particulates (FSP) ($PM_{2.5}$) [iii]	24-Hour	37.5	18
	Annual	15	NA
Nitrogen dioxide (NO_2)	1-Hour	200	18
	24-Hour	120	9
	Annual	40	NA
Ozone (O_3)	8-Hour	160	9
	Peak Season	100	NA
Carbon Monoxide (CO)	1-Hour	30,000	0
	8-Hour	10,000	0
	24-Hour	4,000	0
Lead (Pb)	Annual	0.5	NA

Notes:

[i] All measurements of the concentration of gaseous air pollutants, i.e. sulphur dioxide, nitrogen dioxide, ozone and carbon monoxide, are to be adjusted to a reference temperature of 293 Kelvin and a reference pressure of 101.325 kilopascal.

[ii] Respirable suspended particulates (PM_{10}) means suspended particles in air with a nominal aerodynamic diameter of 10 μm or less.

[iii] Fine suspended particulates ($PM_{2.5}$) means suspended particles in air with a nominal aerodynamic diameter of 2.5 μm or less.

Air Pollution Control (Construction Dust) Regulation

2.2.2 Notifiable and regulatory works are under the control of Air Pollution Control (Construction Dust) Regulation. Notifiable works include site formation, reclamation, demolition, foundation and superstructure construction for buildings and road construction. Regulatory works include building renovation, road opening and resurfacing, slope stabilisation, and other activities including stockpiling, dusty material handling, excavation, concrete production, etc. The Project is expected to

include notifiable works (site formation, demolition, foundation and superstructure construction for buildings) and regulatory works (dusty material handling and excavation). Contractors and site agents are required to inform EPD and adopt dust reduction measures to minimize dust emissions, while carrying out construction works, to the acceptable level.

Air Pollution Control (Non-road Mobile Machinery)(Emission) Regulation

2.2.3 The Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulation comes into operation on 1 June 2015. Under the Regulation, Non-road mobile machinery (NRMMs), except those exempted, are required to comply with the prescribed emission standards. From 1 September 2015, all regulated machines sold or leased for use in Hong Kong must be approved or exempted with a proper label in a prescribed format issued by EPD. Starting from 1 December 2015, only approved or exempted NRMMs with a proper label are allowed to be used in specified activities and locations including construction sites. The Contractor is required to ensure the adopted machines or non-road vehicle under the Project could meet the prescribed emission standards and requirement.

Air Pollution Control (Fuel Restriction) Regulations

2.2.4 The Air Pollution Control (Fuel Restriction) Regulations were enacted in 1990 to impose legal control on the type of fuels allowed for use and their sulphur contents in commercial and industrial processes to reduce sulphur dioxide (SO_2) emissions. In November 2024, the Regulations were amended to further tighten the control requirements of liquid fuels and remove the restrictions on the use of liquid and solid fuel in Sha Tin Fuel Restriction Area. The Regulations do not apply to any fuel-using equipment that is used or operated in premises used solely as a dwelling or is used or operated in or on a vessel, motor vehicle, railway locomotive or aircraft. Gaseous fuel, conventional solid fuel with a sulphur content not exceeding 1% by weight or liquid fuel with a sulphur content not exceeding 0.001% by weight and a viscosity not more than 6 centistokes at 40°C, such as Ultra Low Sulphur Diesel (ULSD) are permitted to be used in commercial and industrial processes.

Recommended Pollution Control Clauses for Construction Contracts

2.2.5 The Recommended Pollution Control Clauses (RPCC) are generally good engineering practice to minimize inconvenience and environmental nuisance to nearby residents and other sensitive receivers. The Contractor shall undertake environmental protection measures to reduce the environmental impacts arising from the execution of the Works and to minimise the effects on the air, noise, water quality as well as nuisance of waste within and outside the Site, on transport routes and at the loading, dredging and dumping areas.

Hong Kong Planning Standards and Guidelines

2.2.6 Section 3 in Chapter 9 of the Hong Kong Planning Standards and Guidelines (the HKPSG) presents the principal framework for planning against air pollution and a summary of common pollution sources, which includes industrial processes, motor vehicles, construction and reclamation sites, odour sources, dusty uses, etc. The recommended buffer distances are reproduced in **Table 2-2** and **Table 2-3**.

Table 2-2 HKPSG's Recommended Minimum Buffer Distance from Roads

Type of Road	Buffer Distance	Permitted Uses
	> 20 m	Active and passive recreation uses
	3 – 20 m	Passive recreational uses

Type of Road	Buffer Distance	Permitted Uses
Trunk Road (including expressway) and Primary Distributor	< 3 m	Amenity areas
District Distributor	> 10 m	Active and passive recreational uses
	< 10 m	Passive recreational uses
Local Distributor	> 5 m	Active and passive recreational uses
	< 5 m	Passive recreational uses
Under Flyovers	-	Passive recreational uses

Table 2-3 HKPSG's Recommended Minimum Buffer Distance from Industrial Chimneys

Difference in Height between Industrial Chimney Exit and the Site	Buffer Distance	Permitted Uses
< 20 m	> 200 m 5 – 200 m	Active and passive recreation uses Passive recreational uses
20 m – 30 m	> 100 m 5 – 100 m	Active and passive recreational uses Passive recreational uses
30 m – 40 m	> 50 m 5 – 50 m	Active and passive recreational uses Passive recreational uses
> 40 m	> 10 m	Active & Passive recreational uses

2.3 Existing Air Quality at the Application Site

2.3.1 The nearest air quality monitoring station (AQMS) to the Application Site is the Yuen Long Air Quality Monitoring Station (AQMS). The five most recent years of air quality monitoring data, 2020 to 2024, from the Yuen Long Air Quality Monitoring Station (AQMS) are summarized in **Table 2-4**. According to the AQMS monitoring data presented in **Table 2-4**, exceedance in 24-hour average RSP concentration, 24-hour average FSP concentration, annual average FSP concentration and 8-hour average O_3 concentration were recorded between Year 2020 and 2024.

2.3.2 As the tentative year of completion of the Proposed Development is 2030, the year of 2030 background concentrations from the PATH v3.0 model has been adopted for the purpose of this assessment, which is considered as a more conservative approach. The data for Year 2030 was extracted from the *Pollutants in the Atmosphere and the Transport over Hong Kong*-model version 3.0 (PATH v3.0) developed and released by EPD in January 2024 (Grid (25,47) and (26,47)). According to **Table 2-4**, except O_3, there would be no exceedance of AQOs for the future background air quality.

Table 2-4 EPD Air Quality Monitoring Data in Yuen Long AQMS and PATH-v3.0 (Grid (25,47) and (26,47))

Pollutant	Averaging time	Parameter	AQO (μg/m³)	Concentration [1] (μg/m³)						
				2020	2021	2022	2023	2024	PATH in Year 2030 (25, 47)	PATH in Year 2030 (26, 47)
RSP (PM_{10})	24-hour	10th highest	75	**77**	73	56	59	61	54	54
	Annual	Maximum	30	30	30	25	26	25	21	21
FSP ($PM_{2.5}$)	24-hour	19th highest	37.5	33	36	**38**	34	**38**	32	32
	Annual	Maximum	15	**16**	**17**	**16**	**16**	**17**	13	13
NO_2	1-hour	19th highest	200	135	148	122	130	125	77	78
	24-hour	10th highest	120	64	78	68	67	66	33	32
	Annual	Maximum	40	32	40	37	37	35	18	17
SO_2	10-minute	4th highest	500	26	24	21	20	14	21	26
	24-hour	4th highest	40	10	14	7	10	5	7	7
O_3	8-hour	10th highest	160	154	**178**	**194**	155	**168**	**186**	**185**
	Peak Season	Maximum	100	86	84	95	84	92	**120**	**120**
CO	1-Hour	Maximum	30,000	1530	2090	1700	1580	1920	527	527
	8-Hour	Maximum	10,000	1279	1591	1519	1273	1778	493	494
	24-hour	Maximum	4,000	1182	1183	1159	1047	1342	463	462

Notes:
[1] Bolded and underlined values exceed the relevant AQO.

2.4 Vehicular Emission Impact Assessment

2.4.1 The Application Site is surrounded by carriageways, including Long Yip Street and Yuen Long On Lok Road to its south, Po Yip Street to its east, Keung Yip Street to its northeast and Wang Yip Street East to its northwest. According to the latest Annual Traffic Census (ATC) published by Transport Department (TD) in 2024, Long Yip Street and Yuen Long On Lok Road are classified as Primary Distributor while the road types of Po Yip Street, Keung Yip Street and Wang Yip Street East are not available in the latest ATC" after "Primary Distributor.

2.4.2 Po Yip Street, Keung Yip Street and Wang Yip Street East are two-way single-lane carriageways. According to the recommendation from project traffic consultant and reply from TD before (**Appendix 2-2**), it is considered that all these 3 roads are classified as local distributor.

2.4.3 According to the Table 3.1 of the Chapter 9 (Environment) of the Hong Kong Planning Standard and Guideline (HKPSG), minimum horizontal buffer separations of 20m and 5m are recommended for Primary Distributor and Local Distributor respectively.

2.4.4 **Figure 2-1** presents the buffer distance between the carriageways and the air sensitive uses of the Application Site. The shortest separation distance from Long Yip Street and Yuen Long On Lok Road (primary distributor) to the nearest air sensitive uses of the Application Site is 23m which is more than the separation requirement of 20m; and distances from Po Yip Street, Keung Yip Street to the nearest air sensitive uses of the Application Site are 10m, 38m respectively, which can meet the separation requirement of 5m. For Wang Yip Street East, the separation distance to the nearest air sensitive uses of the Application Site is 4m, where a small portion of habitable room falls within the recommended 5m buffer zone. Therefore, fixed glazing is proposed at

these strategic locations such that no air sensitive uses of the Application Site including openable window, fresh air intake and recreational use in open space shall be located within the 5m buffer zone from Wang Yip Street East for the residential towers (see **Figure 2-1**).

2.4.5 The proposed development will also be designed so that all fresh air intake location will be outside the 5m/20mbuffer zone.

2.4.6 It is noted that part of footprint of landscape area would maintain less than 20m from Long Yip Street (primary distributor) and maintain less than 5m from Wang Yip Street (local distributor). The landscape area will be used for planters only (i.e. non air sensitive use). No adverse air quality impact due to vehicular emission is anticipated with the proposed fixed glazing at residential towers.

2.4.7 On the other hand, while the nature of the proposed development is not environmentally polluting in nature, there exists future use such as carpark with mechanical ventilation system that may emit pollutant at all. The design and operation of the proposed car park will comply with the requirements stipulated in EPD's Practice Note for Professional Persons – Control of Air Pollution in Car Parks (ProPECC PN 2/96). With the adoption of appropriate ventilation systems and design measures, the air quality associated with the proposed car park is expected to meet the air quality guidelines as given in **Table 2-5**. The locations of the potential mechanical ventilation exhaust are shown in **Figure 2-2**. In addition, it is noted that vehicle movement within carpark is limited and vehicles in the carpark is stationary with no engine on and emission at most time. The number of parking spaces for different vehicle classes are shown in **Table 2-6**. Only private cars and motorcycles will be served. Emission from mechanical ventilation exhaust of the proposed carpark is expected to be limited. In all circumstances, in detailed design of the development, it is advisable to locate the exhaust away from nearby air sensitive receivers as far as practicably possible.

Table 2-5 Concentration Limits

Air Pollutants	Maximum Concentration		
	Averaging Time	Micrograms Per Cubic Metre ($\mu g/m^3$)	Parts Per Million (ppm)
CO	5 minutes	115,000	100
NO_2	5 minutes	1,800	1

Table 2-6 Proposed Parking Spaces for Different Vehicles

Vehicle Classes	No. of parking spaces
Private Cars	192
Motorcycle	13

2.5 Industrial Emission Impact Assessment

2.5.1 According to the survey map and site survey result (site surveys conducted in Jan & Nov 2020, Feb & Oct 2022 and Feb 2023 (during normal working day between 10:00 and 17:00) and verification survey in Apr and June 2026, there is no designated industrial area and existing and planned chimney/industrial emission identified within 500m assessment of the Application Site. The area located at northwest of the Application Site is zoned as Other Specified Uses (OU), which mainly consists of industrial buildings with some vehicle repair workshops at G/F. There is no fluff, odour, dusty, smoke or any other criteria pollutant emission observed at the Application Site and adjacent areas such as from Tung Tai Street Refuse Collection Point on southeast side and the industrial buildings & vehicle repair workshops on northwest side. Therefore, no adverse air quality impact arisen from the industrial buildings and vehicle

repair workshops and no adverse industrial/residential (I/R) interface problem are anticipated.

2.5.2 Since no chimney/industrial emission sources and no heavy industrial operation with emission or dusty use has been identified within the 200m buffer distance of Application Site, the buffer distance requirement under the HKPSG is satisfied. Therefore, it is expected that the ASRs of the proposed development would not be subject to adverse air quality impact from chimney/industrial emission and there is adverse I/R interface problem.

2.6 Odour Impact Assessment

2.6.1 Shan Pui River, nallahs, Yuen Long Kau Hui Sewage Pumping Station, Ping Shun Street Refuse Collection Point, Sewage Treatment Work under Sol City, Tai Kiu Refuse Collection Point, Tung Tai Street Refuse Collection Point, Tai Wong Temple, Yuen Kwan Yi Tai Temple and Tin Hau Temple have been identified as the potential odour sources within 500m assessment area from the Application Site (shown in **Figure 2-3**). No potential odour emission source (e.g. on-site SPS, refuse collection points, etc.) is proposed within the Application Site. As nullahs and Tung Tai Street Refuse Collection Point fall within the 200m odour buffer distance requirement stipulated under HKPSG, site survey was conducted to identify any odour impact arising from identified odour sources within 200m buffer distance from the Application Site.

2.6.2 According to the observation during the site surveys on 19 June 2026 (at 2pm; Temperature: ~32°C; Relative Humidity: 75%), no odour impact was observed near the nallahs and Tung Tai Street Refuse Collection Point within 200m from the Application Site. The enquires on the odour related complaints against the odour sources within 500m assessment area have been made to EPD. According to the reply from EPD, there are altogether 18 complaints received in year 2021 to 2025. In 2020, EPD reived highest number of complaints (8 nos.) where in recent 2025, EPD received 1 complaint. All these complaint cases were already settled, and it implies that there is no persistently adverse odour impact. The relevant correspondences with EPD are shown in **Appendix 2-1**. Therefore, it is anticipated that no adverse odour impact would be arisen from the potential odour sources on the air sensitive receivers of the Application Site based on site survey.

2.7 Conclusion

2.7.1 As confirmed in site survey, there is no chimney and no heavy industrial operation with emission or dusty use identified within 200m from the Application Site so that the buffer separation requirement can be well met. At the same time, the air sensitive uses in the MLP including fresh air intake location, openable window and recreational uses are designed to meet the buffer separation requirement with respect to the existing/ future carriageways. Hence, it is envisaged that the proposed development at the Application Site would not be subject to adverse air quality impact.

3. ROAD TRAFFIC NOISE IMPACT ASSESSMENT

3.1 Introduction

3.1.1 This road traffic noise impact assessment is prepared to address potential road traffic noise impact on the noise sensitive uses of the Proposed Development and to recommend mitigation measures where practicable to attenuate the impact.

3.2 Assessment Criteria

3.2.1 Noise standards are recommended in the Hong Kong Planning Standards and Guidelines (HKPSG) for planning against noise impact from sources such as road traffic, railway and aircraft. The Proposed Development comprises car park, plant room, clubhouse, commercial uses, residential uses and non-residential G/IC facility. The non-residential G/IC facility is not accommodation, educational institution, place of worship, performance venue, hospital, etc. and not noise sensitive in nature. Clubhouse and non-residential G/IC facility will be air conditioned and will not rely on opened window for ventilation. Only residential uses which rely on openable window for ventilation purpose is considered noise sensitive in nature. Under the HKPSG, the criterion for road traffic noise impact on domestic premises (habitable rooms) is $L_{10(1\text{-}hour)}$ 70dB(A).

3.3 Assessment Methodology

3.3.1 In the assessment, the potential noise impact arising from nearby existing and future road carriageways on the development has been assessed based on the proposed master layout plan (MLP).

3.3.2 It involved the prediction of future noise impacts on Noise Sensitive Receivers (NSRs) arising from traffic flows along existing and future road carriageways situated within the vicinity of the Application Site. Calculation of predicted road traffic noise was based on the worst case peak hour traffic flows projected within a 15-year period from the tentative completion date (Year 2030) of the Proposed Development. For worst-case scenario evaluation, the assessment year was chosen to be Year 2045, which has the maximum forecasted traffic flow within the 15-year period. The year 2045 traffic forecast data based on the latest development parameters are attached in **Appendix 3-1**. Endorsement from Transport Department and confirmation letter from project traffic consultant will be provided once available.

3.3.3 The U.K. Department of Transport's procedure "Calculation of Road Traffic Noise" was used to predict the hourly $L_{10(1\text{-}hour)}$ noise levels generated from road traffic at selected representative NSRs. Practicable environmental mitigation measures have been recommended, where necessary. The predicted noise levels were compared with the relevant HKPSG noise standards (i.e. $L_{10(1\text{-}hour)}$ 70dB(A)).

3.4 Noise Sensitive Receivers

3.4.1 A number of Noise Sensitive Receivers (NSRs), which are likely to be subject to adverse traffic noise impacts, were selected for the assessment. All assessment points were taken at 1.2m above the floor and 1m away from the façade of openable windows (which would be for ventilation purpose) of rooms of sensitive use (living rooms & bedrooms for residential towers). **Figure 3-1** illustrates the locations of the selected representative NSRs for road traffic noise impact assessment.

3.5 Assessment Result for Base Case Scenario

3.5.1 The predicted road traffic noise levels on the representative NSRs based on the development scheme without any noise mitigation measures at the Application Site were assessed.

3.5.2 The assessment result for dwellings under base case scenario is presented **in Appendix 3-2**. The compliance rate of road traffic noise standard is 73%. The maximum predicted noise level is 77dB(A). Noise mitigation measures are therefore recommended at the Proposed Development to attenuate the noise impact from road traffic.

3.6 Consideration of Noise Mitigation Measures (Mitigated Scenario)

3.6.1 According to the assessment result of base case scenario, the following noise mitigation measures (same as what recommended in EA1, EA2 and NIA1) are considered and incorporated in the MLP.

a. Acoustic Window / Enhanced Acoustic Balcony (Baffle Type) (AW(BT) / EAB(BT))

Innovative noise mitigation measures are being explored in recent years. Baffle type acoustic windows and enhanced acoustic balconies have been adopted for numerous residential developments for attenuating road traffic noise.

EPD's Practice Note on Application of Innovative Noise Mitigation Designs in Planning Private Residential Developments against Road Traffic Noise Impact (hereafter referred as "EPD-PN") has been referenced for the purpose to demonstrate the feasibility of mitigating noise impact.

i. The outer window/door system with side hung openable window/door and

ii. The inner sliding panel.

The Acoustic Window / Enhanced Acoustic Balcony (Baffle Type) in EPD-PN (see **Appendix 3-4**) refers to the type of window/ balcony door that has an inner sliding panel behind the outer opening, both readily openable, for creating an air gap for the supply of fresh air with noise mitigation effect. It comprises two glazing:-

The "designed setting" to reduce noise entering indoor area is achieved by placing the inner sliding panel behind the openable window/door, so that noise from outside cannot pass through the opening window/door and enter indoor area directly. As there is no gap at top and bottom of the sliding panel, direct transmission of sound energy into the habitable room is avoided. Instead, outdoor noise has to pass through the gap between the inner sliding panel and outer façade aside the opening window/door in order to enter indoor area. The design allows natural ventilation through the aforementioned gap (although extent of natural ventilation may be inferior to the case without the inner sliding panel behind) and prevent most noise from entering indoor environment. According to the latest PNAP APP-130: "Lighting and Ventilation Requirements – Performance-based Approach", the proposed AW(BT) and EAB(BT) are considered complying with prescribed ventilation requirement if the net opening when the inner sliding panel is moved to another side with least obstruction to the openable window/door at the outer façade.

A road traffic noise sound attenuation of 6.0dB(A) to 7.0dB(A) can be achieved for AW(BT), while a road traffic noise sound attenuation of 8.0dB(A) to 9.0dB(A) for EAB(BT) with reference to EPD-PN assuming that the noise source is right in front of the opening.

With the designed setting of the AW(BT) and EAB(BT) described above, the noise reduction performance can be improved by various means including tilting the

AW(BT) and EAB(BT) to a horizontal incident angle not less than 30 degree to the dominant line source (-1.0dB(A) for AW(BT) and -2.0dB(A) to -3.0dB(A) for EAB(BT)), adding 1.5m long full-height architectural fin (only applicable to AW(BT) only) (-1.0dB(A) for tilting not less than 30 degree and -2.0dB(A) for not less than 60 degree), adding sound absorptive material (SAM) (i.e. Noise Reduction Coefficient, NRC≥0.7) at the top and outer opening side of mullion (-1.5dB(A)). The additional improvements from EPD-PN mentioned above have been referenced and adopted where necessary.

The configurations of the optimised AW(BT) and EAB(BT) design are shown in **Appendix 3-3**. With the optimised configurations, the noise reduction effectiveness of the proposed AW(BT) and EAB(BT) should not be worse than the reference cases. It is anticipated the proposed AW(BT) and EAB(BT) should have at least the same sound transmission loss performance as the reference case as a conservative assumption. Further, if the room size of the proposed development is significantly (more than 10%) lower than the reference case in EPD-PN, room size adjustment is conducted so that the noise reduction will be lowered. Lastly, in case the noise reduction of the proposed AW(BT) and EAB(BT) is higher than the residual exceedance, it is assumed that the noise reduction is equal to the residual exceedance.

b. Fixed Glazing with or without Maintenance Window

For those window façades that are not necessary to serve ventilation purpose yet exposed to adverse road traffic noise, Fixed Glazing with or without Maintenance Window is proposed. The fixed glazing of not less 8mm will be equipped with well gasketed maintenance window, if any, and a removable handle or key lock system to ensure the maintenance window remains locked except for cleaning and maintenance purpose.

c. Door with Auto-closing Mechanism

Similar to Fixed Glazing with or without Maintenance Window discussed above, door (with glass pane, if adopted, of not less than 8mm) with auto-closing mechanism will be adopted at door openings that do not serve ventilation purpose yet exposed to adverse road noise. The door with auto-closing mechanism would remain closed except accessing to the balcony/ utility platform.

d. Vertical Acoustic Fin

One (1) full height vertical fins with length of 1.5m is proposed next to N2-75 as shown in **Figure 3-2**, where Acoustic Window (Baffle Type) are also proposed. The additional noise reduction for the corresponding NSR with AW(BT) adopted follows that in the EPD-PN. For NSR location further apart, the vertical fin can also effect to reduce some view angle. The noise reduction performance of vertical fin not adjacent to the NSR (window opening) location (i.e. additional noise reduction performance not accounted by referencing to EPD-PN), it is evaluated by using road traffic noise model. The side of the fin adjacent to ventilation opening will be covered with SAM to minimise noise reflection or reverberation. Noise reduction due to use of vertical fin is determined based on approach of CRTN but capped to not more than 3 dB(A).

e. Sound Absorption Material

It is noted that sideway opening may be located within a deeper semi-enclosed area (re-entrant space). Or, erection of vertical acoustic fins near NSRs may create a semi-enclosed area with respect to the NSR location if the fin is located parallel to building structure or fins are too close to each other and hence inducing possible multiple noise reflection effect. In order to avoid the potential multiple noise

reflection effect at NSRs, SAM is proposed to the building façade within the semi-enclosed area where practicable and the sides of the vertical fin adjacent to ventilation window opening of habitable rooms.

3.6.2 All practical mitigation measures have been considered and exhausted where practicable and effective, and incorporated into the MLP. Location of proposed road traffic noise mitigation measures is presented in **Figure 3-2**.

3.7 Assessment Result with Proposed Noise Mitigation Measures

3.7.1 With all practical noise mitigation measures considered and incorporated for implementation as described in **Figure 3-2**, all residential units comply with predicted noise levels exceeded the criterion of 70dB(A). Under mitigated scenario, the road traffic noise compliance rate for the Proposed Development is significantly improved to full compliance.

3.7.2 Direct noise mitigation measures including acoustic window (baffle type), enhanced acoustic balcony (baffle type), fixed glazing with or without maintenance window, door with auto-closing mechanism, and vertical acoustic fin are provided to achieve full compliance with respect to the road traffic noise criteria for the Proposed Development.

3.8 Conclusion

3.8.1 The predicted road traffic noise impacts on the selected representative NSRs based on the noise mitigation measures discussed above were assessed.

3.8.2 With all practical noise mitigation measures considered, the road traffic noise compliance is improved from 73% (base case scenario) to full compliance.

4. RAILWAY NOISE IMPACT ASSESSMENT

4.1 Introduction

4.1.1 Tuen Ma Line Long Ping Station and its associated viaduct track line are aligned to the southwest and south of the Application Site. Existing 2m-high parapet wall is built along the Station.

4.1.2 The assessment has been prepared to assess the potential railway noise during the operation of Tuen Ma Line with respect to the latest development scheme. Noise mitigation measures for the protection of the Proposed Redevelopment will be proposed, where necessary.

4.2 Assessment Criteria

4.2.1 According to the *Technical Memorandum for the Assessment of Noise from Places Other Than Domestic Premises, Public Spaces or Construction Sites* (IND-TM), the airborne noise shall comply with the Acceptable Noise Level (ANL) which depends on the Area Sensitivity Rating (ASR).

4.2.2 The type of the area where the Application Site located is considered to be "(iv) Area other than (i) to (iii) ((i) rural area; (ii) low density residential area; (iii) urban area)" and not affected by influential factor (disregard there are existing industrial buildings to the west to northwest of the Application Site as a more conservative approach). Therefore, the Area Sensitivity Rating "B" is adopted as the assessment criteria. Noise standards of 65dB(A) and 55dB(A) are adopted for day-time and night-time respectively. **Table 4-1** below shows the details of the railway noise impact assessment criteria for this study. In any event, the Area Sensitivity Rating and the ANLs adopted in this report are only indicative and they are used for assessment only. It should be noted that the noise from fixed noise sources is controlled under section 13 of the Noise Control Ordinance. The assessment of noise impacts due to fixed noise sources in this report would not bind the Noise Control Authority in the context of law enforcement against any of the noise from fixed noise sources being assessed.

Table 4-1 Acceptable Noise Levels for the NSRs

Time Period	ANL for ASR "B", Leq(30min), dB(A)
Day & Evening (0700 to 2300 hours)	65
Night (2300 to 0700 hours)	55

4.2.3 Besides the TM, HKPSG also provides additional criteria for assessing railway noise:

Table 4.2 Relevant Noise Standard under HKPSG

Description	Standard
Lmax (2300-0700)	85dB(A)
Leq (24-hour)	65dB(A)

4.3 Existing Condition of Railway System and Surrounding

4.3.1 Referring to **Figure 4-1** showing railway system within 300m assessment area from the Application Site, part of the Tuen Ma Line Long Ping Station and railway viaduct (comprising single viaduct and twin viaduct) can be found.

4.3.2 The railway station itself has a total length of about 380m. The Tuen Ma Line of the station and platform is elevated and the railway station concourse is located at grade.

4.3.3 The railway line is on two sides of the Tuen Ma Line Long Ping Station. The railway station is equipped with glazed wall and door at the platform level on two sides. Moreover, the railway station platform is covered by a solid canopy structure, which also extends outward to cover the railway line on top. The solid canopy is of about 240m long, which means that sections of the railway station at two ends are not covered. At two ends of the railway station situates the station facilities of about 5.5m high between the railway tracks, which would provide substantial screening for train on far track. Along the railway station, fence wall is also erected to contain poster on two sides of the railway track. The height of solid fence wall is over 2m. The potential shielding effect of the features mentioned above will be accounted.

4.3.4 For single viaduct, there is parapet on both sides with horizontal separation of about 1.3m between parapet and notional noise source. For twin viaduct, there is parapet on two sides but no barrier structure between 2 railway line. The horizontal separation between parapet and notional noise source of train on the other side is around 5m. It is taken into account when determining the barrier shielding effect.

4.4 Operational Characteristics of Tuen Ma Line

4.4.1 For the day time peak train frequency, reference is made to the previous enquiry submitted to MTRC, the future ultimate daily Tuen Ma Line peak operating train frequency during the period of 0700-2300 would be 28 trains per hour per direction (See **Appendix 4-1**). the maximum number of trains in each direction would be 15 numbers in 30 minutes (with headway 1 additional train).

4.4.2 For the night time peak train frequency, the maximum frequency during 0600-0700 (representative of worst case during night time) will be 40 trains per hour (two directions) in accordance to the latest Environmental Permit for West Rail operation (FEP-24/004/1998/J) (Also see MTRC reply in **Appendix 4-1**). The maximum number of trains in each direction would be 11 numbers in 30 minutes (with headway 1 additional train).

4.4.3 According to MTRC reply, the peak train speed is about 70kph for both directions between Yuen Long Station and Long Ping Station.

4.4.4 With reference to the enquiry submitted to MTRC for operation mode of the captioned railway segment, it is informed that the number of cars per train is 8 cars per train for the operating condition of the Tuen Ma Line. However, the latest Environmental Permit for West Rail operation (FEP-24/004/1998/J) allows for the operation of 9-car train. Hence, 9-car train operation instead of the 8-car train operation would be adopted in this assessment as a conservative approach (Also see MTRC reply in **Appendix 4-1**).

4.5 Assessment Methodology

4.5.1 The assessment methodology resembles that in the EA1 and EA2. On-site railway noise measurement was conducted on the rooftop of Lai Sun Yuen Long Centre to determine reference sound exposure level (SEL) from the West Rail Line (currently Tuen Ma Line) in December 2019 (See **Appendix 4-4**) and was adopted to derive the reference noise level. During the measurement, 8-car train was used. SELs for train movement along tracks among both directions (Near Track (To Hung Hom) and Far Track (To Tuen Mun)) was captured as the reference noise level for this assessment.

4.5.2 Noise level during the period when railway noise is audible has been adopted to determine the SEL by summing the sound energy during this period. The SEL calculated based on this approach would include background noise. To discount the background noise effect (mainly road traffic noise based on onsite observation) for individual SEL, the minimum noise level recorded during the same period is regarded as the background noise level and deducted to determine the SEL due to railway noise.

4.5.3 The SELs determined based on on-site measurement result are then corrected to 9-car train, 25m reference distance and view angle of 180 degree. Corresponding correction (e.g. distance correction, view angle correction and façade correction) has been incorporated into the calculation of railway noise at representative NSRs. The reference SEL of 80.3dB(A) and 81.8dB(A) was determined and applied to near track and far track respectively. Speed correction is not considered as the measurement was conducted onsite and already reflects the actual train speed.

Corr (9 cars) = 10 x log(9/8)

Corr (distance to 25m) = 10 x log(measurement distance/25)

Corr (view angle to 180°) = −[10 x log (π x measurement angle/180 – Cos(2 x measurement acute angle) Sin(measurement angle) – 5]

4.5.4 Similarly, the Lmax determined based on on-site measurement result are then corrected to 9-car train and 25m reference distance.

4.6 Method to predict Leq (30 min) Level during Night-time Period and Lmax Level

4.6.1 The U.K. Department of Transport's procedure "Calculation of Railway Noise" (CRN) was used to predict the hourly Leq (30 min) noise levels generated from railway tracks at selected NSRs. For ordinary assessment based on the reference SEL, the Leq (30 min) level during the night-time period can be determined by accounting the following factors:

- Distance correction [DC = 10 x log (Dref / D)] where Dref is reference distance during measurement;
- View angle correction [VAC = 10 x log ($\pi\theta$/180 – Cos2αSinθ) - 5] where θ = view angle to railway track not shielded from the NSR & α = acute angle defined in "Calculation of Railway Noise" published by the Department of Transport of London (CRN). View angle correction for the location where direct measurement is conducted and the NSR selected for assessment purpose are determined and subtracted with each other to determine the net correction;
- Poor track correction [+3dB(A)] to account for poor track;
- Façade correction [+2.5dB(A)];
- Conversion from SEL to Leq (30 min) during day & evening time/night-time [a frequency of 15/11 trains in 30 minutes per direction based on information from MTRC and the latest Environmental Permit condition with 1 additional train to capture possible worst case impact].
- The peak frequency in a day will be 28 trains per hour per direction. Assuming Tuen Ma Line operates 24 hours a day with peak frequency at each of 24 hours, the frequency in 24 hours will not be higher than 28 x 24 = 672 trains. Conversion from SEL to Leq (24-hr) will be made based on 672 trains in 24 hours as most conservative scenario.

4.6.2 Similarly, Lmax noise level at selected NSRs is determined by accounting factors including distance correction, poor track correction and façade correction.

4.7 Noise Sensitive Receivers

4.7.1 For residential towers, NSRs are selected at the southernmost location of Tower 1 (with no vertical fin assumed), the westernmost location of Tower 2, south and southeastern façade of Tower 2 of the proposed redevelopment nearest and facing Tuen Ma Line to represent the worst affected location. A total of 19 NSRs are selected as representative for the assessment. The assessment points are taken at 1m away from the façade and 1.2m above the corresponding floor slab. Moreover, no shielding by surrounding

existing buildings is assumed as a conservative approach. **Figure 4-2** showed the location of the representative NSRs.

4.7.2 Some of the NSRs (i.e. R2-01, R2-75), are in close proximity to the railway track segment. Yet, noise mitigation measures in terms of orientation and long vertical fin are provided so that there is no direct line of sight towards the track from these NSRs, Therefore, they are not included in this assessment.

4.7.3 The night time noise standard is considered as the most stringent. Should the predicted night time noise level be within the acceptable criterion, no unacceptable railway noise impact is anticipated. Nevertheless, day and evening time noise level is also projected based on correction for the frequency of train for completeness.

4.8 Proposed Railway Noise Mitigation Measures and the Predicted Result

4.8.1 The assessment scenario has incorporated the self-protecting building design to minimize the view angle of the NSRs towards the railway track. Building re-entrant design and vertical acoustic fins are incorporated into the design and adopted which helps to reduce the angle of view from representative NSRs. The mitigation measures adopted are further detailed below.

a. Building re-entrant design (with Sound Absorptive Material applied)

4.8.2 In order to limit the angle of view towards the railway track, window openings are assigned at the building re-entrants for ventilation purpose. Fixed glazing with or without maintenance window is proposed at the building frontage of these concerned residential units and not for ventilation purpose. The balcony door opening is for access purpose only and will be equipped with auto-closing door. To avoid noise reverberation problem for opening at re-entrant area, SAM will be applied to the façade of re-entrant area (except glazing area) to avoid reverberation problem.

b. Fixed Glazing with or without Maintenance Window

4.8.3 For those window façades that are not necessary to serve ventilation purpose yet exposed to adverse road traffic noise, Fixed Glazing with or without Maintenance Window is proposed. The fixed glazing of not less 8mm (STC30 or better) will be equipped with well gasketed maintenance window, if any, and a removable handle or key lock system to ensure the maintenance window remains locked except for cleaning and maintenance purpose. Better insulation glass pane can ensure that noise penetration to indoor area through glass pane will be significantly reduced to below ANL-10dB(A).

c. Door with Auto-closing Mechanism

4.8.4 Similar to Fixed Glazing with or without Maintenance Window discussed above, door (with glass pane, if adopted, of not less than 8mm) with auto-closing mechanism will be adopted at door openings that do not serve ventilation purpose yet exposed to adverse road noise. The door with auto-closing mechanism would remain closed except accessing to the balcony/ utility platform.

d. Vertical Acoustic Fin

4.8.5 For the location that building re-entrants design alone is not sufficient for mitigating the potential railway noise impact, vertical acoustic fins of 1.0m to 1.9m long are proposed at strategic locations to further reduce the view angle towards the railway track. It is noted that the erection of acoustic fins near NSRs would induce potential noise reflection effects, SAM is proposed at such surface (and tip) of the vertical acoustic fin adjacent to ventilation opening.

4.8.6 **Figure 4-2** showed the location of the proposed railway noise mitigation measures. Predicted railway noise impacts for day and evening time, night-time, Lmax and Leq(24-hour) are assessed. All assessment results are presented in **Appendix 4-2**.

Leq (30 min) Noise Level during Day & Evening and Night time

4.8.7 The predicted day & evening time and night-time Leq (30min) noise levels for the selected NSRs according to the methodology discussed above are presented in **Appendix 4-2**. According to the assessment result, no non-compliance is found during day & evening and night-time period.

Table 4-2 Maximum Predicted Leq (30 min) during Day & Evening and Night-time Period

NSR	Leq (30 min), dB(A)	
	Day & Evening (0700 to 2300)	Night (2300 to 0700)
R1-44	54	52
R2-49	54	53
R2-56	57	55
R2-57	56	55
R2-59	52	51
R2-62	46	44
R2-64	57	55
R2-65	57	55
R2-67	56	55
R2-68	56	55
R2-69	57	55
R2-72	57	55
R2-73	56	54
R2-74	53	52
R2-77	56	55
R2-78	55	54
R2-81	57	55
R2-82	56	55
R2-85	56	55

Note: NSRs R2-01 and R2-75 do not have direct line of sight with railway line within 300m. No assessment result for these NSRs is presented.

Leq (24-hour) Noise Level

4.8.8 According to MTRC, the daily operation hours would be from 0500 – 0130 approximately (total 20.5 hours per day). Nevertheless, to take into account special days when the railway system would extend the opening hours, it is prudent to assume worst case situation with train operations in 24 hours and maximum frequency throughout the day is applied (i.e. 28 * 24hours = 672 trains). The conversion factor from SEL to Leq (24-hour) would then be [10 * log(672/86400)= -21.1 dB(A)].

4.8.9 The predicted Leq (24hr) noise levels for the representative NSRs are shown in **Appendix 4-2** and tabulated in **Table 4-3** below. The predicted noise levels for all NSRs are below the noise standard of 65dB(A) and no adverse railway noise impact under the Leq (24hr) criteria is anticipated under the Base Case scenario.

Lmax Noise Level

4.8.10 The Lmax noise levels for the selected NSRs are projected based on horizontal distance. Barrier correction and view angle correction are not accounted in assessment. It is assumed that trains pass along each track (EB and WB) concurrently so that the result is representative of the most conservative scenario.

4.8.11 All representative NSRs for residential units are complied with the Lmax noise criteria of 85dB(A). The predicted Lmax noise levels for the representative NSRs are shown in **Appendix 4-2** and tabulated below in **Table 4-3**.

Table 4-3 Maximum Predicted Leq (24-hour) and Lmax Noise Level

NSR	Leq (24-hour), dB(A)	Lmax, dB(A)
R1-44	53	63
R2-49	54	62
R2-56	56	63
R2-57	55	63
R2-59	52	63
R2-62	45	63
R2-64	56	64
R2-65	56	64
R2-67	56	65
R2-68	56	65
R2-69	56	65
R2-72	56	65
R2-73	55	65
R2-74	53	66
R2-77	56	68
R2-78	55	65
R2-81	56	66
R2-82	56	65
R2-85	56	65

Note: NSRs R2-01 and R2-75 do not have direct line of sight with railway line within 300m. No assessment result for these NSRs is presented.

4.9 Conclusion

4.9.1 The potential noise impact from railway noise has been assessed based on the Proposed Redevelopment. The predicted noise level of selected NSR comply with the relevant Noise Control Ordinance standard with building re-entrant design (including provision of door with auto-closing mechanism and fixed glazing with or without maintenance window) and vertical acoustic fins incorporated in the proposed layout. SAM will be applied at appropriate locations to avoid noise reverberation effect. The finding is similar to the EA1, EA2 and NIA1. It is noted that the noise reduction effect of innovative measures such as acoustic window and enhanced acoustic balcony has not been accounted in this assessment. Therefore, the impact on the noise sensitive area of the dwellings should be further reduced in light of presence of the innovative measures.

5. FIXED SOURCE NOISE IMPACT ASSESSMENT

5.1 Introduction

5.1.1 The aim of this study is to assess potential noise impact arising from nearby fixed noise source within 300m assessment area of the Proposed Development. Practical noise mitigation measures would be recommended, where necessary.

5.2 Assessment Criteria

5.2.1 The Proposed Development is situated at Tung Tau Industrial Area. In accordance with the *Technical Memorandum for the Assessment of Noise from Places other than Domestic Premises, Public Places or Construction Sites* (herein referred to as "IND-TM"), the type of the area where the Application Site located is considered to be either "Type (iii) Urban Area" or "Type (iv) Area other than those above".

5.2.2 Tung Tau Industrial Area has already been zoned to other uses instead of industrial use. However, most of the industrial buildings are still in place and on the opposite side of Wang Yip Street East. As a conservative approach, however, the existing industrial area and undertakings are not regarded as an influencing factor. Therefore, Area Sensitivity Rating (ASR) "B" is adopted as the assessment criteria.

5.2.3 **Table 5-1** below presents the fixed noise impact assessment criteria for Daytime & Evening time and Night-time Periods adopted in this assessment.

Table 5-1 Criteria for Fixed Noise Impact Assessment

Standards	ASRs[2]	Time Period	Acceptable Noise Level (ANL) [1][2]	Noise Criteria in Current Assessment Leq (30mins), dB(A)
NCO	B	Daytime & Evening time Leq (30 mins) (07:00 – 23:00)	65dB(A)	65dB(A)
		Night-time Leq (30 mins) (23:00 – 07:00)	55dB(A)	55dB(A)

Notes:

[1] Acceptable Noise Level for Area Sensitivity Ratings "B" stipulated in the Technical Memorandum for the Assessment from Places other than Domestic Premises, Public Places or Construction Sites. Under the "Urban Area" type of the area containing NSR, an ASR of "B" is assigned to the NSR "Not Affected" by IF.

[2] In any event, the Area Sensitivity Rating and the ANLs adopted in this report are only indicative and they are used for assessment only. It should be noted that noise from fixed sources is controlled undersection 13 of the Noise Control Ordinance. Therefore, the Noise Control Authority shall determine fixed plant noise impact on the basis of prevailing legislation and practices being in force, and taking account of contemporary conditions / situations of adjoining land uses. The assessment of noise impacts from fixed sources in this report shall not bind the Noise Control Authority in the context of law enforcement against any of the industrial noise being assessed.

5.3 Fixed Noise Sources

5.3.1 Desktop review and site investigations have been carried out to identify potential fixed noise sources in the vicinity of the Application Site.

5.3.2 Site visits were conducted in Dec 2019, Jan 2020, Nov 2020, Jan 2022, Feb 2023 and Apr 2026 during both daytime & evening time and night-time periods in an attempt to identify fixed noise sources at the vicinity and determine their operating hours. Noise measurement was carried out during site visit to estimate the SWL of the potential fixed noise sources at the vicinity in previous site surveys. The measurement was conducted using a calibrated Bruel & Kjaer (B&K) Precision Integration Sound Level Meter Type 2250L, which complies with International Electrotechnical Commission Publication 651:1979 (Type 1) and 804:1985 (Type 1). The weather condition was fine with calm wind during measurement, which satisfied the required measurement criteria. The equipment was properly calibrated immediately prior to and following each measurement by a B&K Sound Level Calibrator Type 4321. In the recent verification survey in Apr 2026, all identified noise sources at street level were not in action operation so that no update of direct measurement was conducted.

5.3.3 Findings in NIA1 prepared in late 2025 is also referred as appropriate. Based on the recent verification survey in Apr 2026 and desktop search, it is observed that all identified noise sources in the survey resemble what identified in the NIA1 while based on desktop search, two additional chillers were found at rooftop of One North.

5.3.4 Details of identified fixed noise sources are listed as follows:

(a) <u>On Lok Road Electrical Substation</u>

On Lok Road Electrical Substation (ESS) is located at the southwest of the Application Site, with approximately 3m of separation from the nearest site boundary. Six transformers (Source ID: S1a to S1f) are identified and placed at the side near the Application site. A 5m high solid fence wall is built along the transformer bay. Audible noise from these transformers is detected from the site survey during both daytime & evening time and night-time period. On-site noise measurement was therefore conducted within both periods to evaluate the Sound Power Level (SWL) for assessment. Tonal noise was identified during measurement and 1/3 octave band spectrum analysis.

(b) <u>Metal Workshop</u>

A metal workshop is situated at the immediate southwest of the Application Site (Source ID: S2) along Wang Yip Street South. Apart from selling metal and steel products, as observed during site survey, the workshop will also provide metal processing service. The processing includes cutting and compressing metal sheets by mechanical equipment. The workshop is opened during daytime & evening period, no night-time operation (23:00-07:00) was observed and this was also confirmed by workshop staff.

(c) <u>Garage and Vehicle Testing Centre</u>

There are several car-repairing workshops in the vicinity of Proposed Redevelopment, which are mainly located along Wang Yip Street East and Hi Yip Street (Source ID: S3 to S9, S11 to S18). These garages are open during daytime & evening period, no night-time operation (23:00-07:00) was observed and this was confirmed by garage staff. The operation activities of garages involve using vehicle lifting machines and hand-held pneumatic tools, hammering, car washing and grinding works. Some of the garages would also offer tyre replacement service. Noise measurement was carried out at some of the garages where audible noise was noticed. For garages without operation, the noise level based on findings in previous environmental assessment studies have been referenced.

A Vehicle Testing Centre (Source ID: S15) is located at the further northeast of the site. Noise measurement was conducted in previous site survey to determine the SWL of its operation activity.

(d) Fixed Noise Sources at higher levels

There are a number of cooling towers, chillers and VRV (Source ID: C6 to C10) observed at either podium or rooftop of surrounding buildings based on latest survey. These fixed noise sources are inaccessible and can only be observed at the rooftop of existing Lai Sun Yuen Long Centre onsite. There was no audible noise observed during survey, due to long separation and high background noise from road traffic, etc. Due to the inaccessibility, sound power level of comparable equipment based on equipment catalogue of comparable equipment. Same approach has been adopted in other projects by the same consultant to evaluate the potential fixed noise impact.

5.3.5 Locations of the identified fixed noise sources are indicated in **Figure 5-1**. Site Survey photo records and details are shown in **Appendix 5-1**. Summary of SWLs applied in fixed noise impact assessment is included in same appendix.

5.4 Representative Noise Sensitive Receivers

5.4.1 Representative NSRs which have direct line of sight towards the identified fixed nose sources have been selected for the assessment. The concerned NSRs are mainly at the northeastern and southwestern façade of Tower 1, as well as the northwestern side of Tower 2.

5.4.2 The location of the representative NSRs are presented in **Figure 5-2**.

5.5 Assessment Methodology

5.5.1 Standard acoustic principles were adopted for prediction of cumulative fixed noise impact. In accordance with the IND-TM, a barrier correction of -10 dB(A) is applied where the line of sight from the representative NSR would be completely blocked by building structure or barriers. A façade correction of +3dB(A) is also adopted. Tonal noise was detected for electrical substation, which is also included in the assessment. Tonality of 6dB(A) is also assumed for chillers which are not accessible but with tonal characteristics generally.

5.5.2 Prediction of the fixed noise level can be represented by the formula below:

$$SPL_{NSR} = SWL_{source} + Corr_{dist} + Corr_{bar} + Corr_{fac} + Corr_{ton}$$

where

SPL_{NSR}	= Predicted Noise Level at Selected Representative NSR
SWL_{source}	= Derived Sound Power Level of the Fixed Noise Source
$Corr_{dist}$	= Distance Correction (20 x Log (Horizontal Distance between NSR and Source))
$Corr_{bar}$	= Barrier Correction (-10 dB(A))
$Corr_{fac}$	= Façade Correction (+3 dB(A))
$Corr_{ton}$	= Tonality Correction (+6 dB(A))

5.6 Fixed Sources Noise Mitigation Measures Incorporated in the Design

5.6.1 As mentioned in S5.3, there are a number of fixed noise sources identified at the vicinity of the Application Site and potential fixed noise impact is envisaged. The following noise mitigation measures are incorporated in the design to alleviate the anticipated impact due to surrounding fixed noise sources. The location of proposed noise mitigation measures is indicated in **Figure 5-3**.

a. Single Aspect of Building

Building designed in single aspect means arranging rooms of non-noise sensitive uses to face the noise source, which reduces the impact on occupants. This approach is considered and incorporated into the proposed layout plan (a portion of Tower 1 facing noise sources along Wang Yip Street East and southern portion of Tower 2 facing ESS (S1)). Non-noise sensitive uses, corridor, lift shaft and staircase are arranged to avoid residential units with direct line of sight towards the noise sources.

b. Vertical Acoustic Fin

Vertical Acoustic Fins range from 1.2m to 1.6m are proposed at strategic locations that are vulnerable to potential fixed noise impact. For both towers, the flat units closest to ESS (S1) are proposed with fin to avoid having direct line of sight towards S1 and corrections applied in calculation due to shielding of S1. Similar principle is applied to NSR F1-02, which is under the impact of fixed noise because of its proximity to the garage S6.

It is noted that the erection of vertical acoustic fins near NSRs would induce potential noise reflection effects, SAM is proposed at such surface (and tip) of the vertical acoustic fins.

c. Noise Barrier on top of the Podium Building

Since approximately half of Tower 1 is arranged in parallel to On Lok Road Electrical Substation (S1), proposing vertical acoustic fin cannot reduce the angle of view towards S1. In view of the ineffectiveness of acoustic fin, a noise barrier (top level 39.3mPD) is proposed on top of the podium building. The noise barrier facing S1 will be covered with SAM to avoid multiple reflection effect between the noise barrier and the façade of substation building. The screening effect by the proposed noise barrier is taken into account in this assessment.

d. Fixed Glazing with or without Maintenance Window

For those window façade that are not necessary to serve ventilation purpose yet exposed to adverse road traffic noise, Fixed Glazing with or without Maintenance Window is proposed. The fixed glazing of not less 8mm will be equipped with well gasketed maintenance window, if any, and a removable handle or key lock system to ensure the maintenance window remains locked except for cleaning and maintenance purpose.

5.7 Assessment Result

5.7.1 A summary of predicted industrial noise levels at representative NSRs is tabulated in **Table 5-2**. The maximum predicted fixed noise levels Leq(30mins) for daytime & evening period is up to 65dB(A), whilst for night-time period is 55dB(A). Therefore, the above results show that there is no non-compliance with the assessment criteria of 65dB(A) and 55dB(A) for daytime & evening and night-time periods respectively. The finding is similar to previous assessments in EA1, EA2, NIA1.

Table 5-2 Predicted Fixed Noise Level

Selected Representative NSRs	Predicted Fixed Noise Level, ($L_{eq\ (30mins)}$, dB(A))	
	Day and Evening Time (07:00-23:00)	Night-time (23:00-07:00)
F1-02	65	50
F1-03	65	50
F1-07	63	50
F1-09	62	50
F1-12	61	50
F1-14	61	50
F1-16	60	50
F1-19	60	49
F1-23	58	53
F1-25	58	51
F1-27	59	53
F1-28	59	53
F1-30	60	53
F1-31	60	53
F1-33	60	53
F1-39	61	54
F1-42	62	55
F1-43	61	55
F2-07	61	55
F2-10	60	54
F2-19	60	54
F2-23	59	54
F2-25	59	54
F2-26	59	54
F2-30	58	53
F2-77	55	50

Note: NSRs F1-44 and F2-01 do not have direct line of sight with fixed noise sources within 300m. No assessment result for these NSRs is presented.

5.8 Conclusion

5.8.1 The potential noise impact from fixed sources has been assessed. According to the assessment results, the Proposed Development would not be subject to adverse fixed noise impact from fixed noise sources with the proposed noise mitigation measures.

5.8.2 Furthermore, in order to ensure that the fixed noise generated by the Proposed Development would not cause excessive impact to neighbouring noise sensitive uses, the ventilation and air conditioning systems for the carpark, plant room etc., will be designed and installed to meet the relevant noise criteria as stipulated in the HKPSG.

6. CONSTRUCTION PHASE IMPACTS

6.1 Introduction

6.1.1 During the construction phase of the Proposed Development, there may be potential air, noise and water quality impacts upon the nearby sensitive receivers such as villages. Practicable environmental mitigation measures are recommended to reduce these impacts to acceptable ranges. Nearest noise and air sensitive uses are summarised below and **Figure 6-1**. Among these uses, Tung Tau Industrial Area Playground and Kwan Lok Sun Chuen to the north and east are sited nearest to the Application Site.

Table 6-1 Surrounding Noise and Air Sensitive Receivers

(N)oise/(A)ir Sensitive Receivers	Horizontal Separation from Site Boundary
Tung Tau Industrial Area Playground (A)	about 47m to the north
One Regent Place (N)(A)	about 137m to the northeast
Cumberland Presbyterian Church Yao Dao Secondary School (N)(A)	about 213m to the northeast
Kwan Lok Sun Chuen (N)(A)	about 51m to the east
Tai Hang Building (N)(A)	about 132m to the south
Long Ching Estate (N)(A)	about 107m to the south
Keader Centre (A)	About 60m to the south
Yuccie Square (N)(A)	about 125m to the southwest
Tai Kiu Tsuen (N)(A)	about 246m to the southwest
The Spectra (N)(A)	about 169m to the west
Wang Fu Court (N)(A)	about 220m to the northwest
After The Rain (N)(A)	about 192m to the northwest
Hing Wah Industrial Building (A)	about 17m to the northwest
Fu Wah Industrial Building (A)	about 17m to the northwest
Annking Industrial Building (A)	about 17m to the northwest

6.2 Fugitive Dust Emission

6.2.1 The existing Lai Sun Yuen Long Centre will be demolished for the proposed development. The major air quality impact of concern during the demolition and construction phase will be the potential fugitive dust emission. The major dust emission sources during the construction phase of the Proposed Development are expected to arise from construction activities during site formation stage such as:

- Demolition of existing building structures;
- Earthworks (minor excavation and backfilling activities;
- Wind effect on material stockpiling; and
- Vehicle movements on haul roads and over the construction site.

6.2.2 It is estimated that the size of works area is approximately 3100m^2. For the demolition of existing building, C&D materials generated is estimated to be around 11,6700m^3. Assuming a demolition period of around 1 year, there will be around 12 truckloads of materials generated per day. During the superstructure construction, it is estimated that 5,140m^3 construction waste will be generated. Assuming a period of 3 years for superstructure construction, there will be about 2 truckloads of construction waste

generated per day. Therefore, necessary mitigation measures are recommended and will be implemented in order to control the construction air quality impact.

6.2.3 On the other hand, a project located in close vicinity to the Application Site is the proposed underground public vehicle park and re-provisioning of permitted sports facilities under Approved Planning Application A/YL/290 (45m apart). Given the construction work of this planned development will be completed in 2026. It is anticipated that there is no concurrent construction and no cumulative air quality impact will be excepted. Besides, there are a number of planned developments under Approved Planning Applications A/YL/275 (395m apart), A/YL-NSW/334 (430m apart) and A/YL-NSW/282 (430m apart) and all located far away from the Application Site. These projects and their construction works are considered concurrent projects. However, the contribution to the cumulative fugitive dust impact assuming there are concurrent dusty activities is not considered significant by considering the fairly long separation (~400m). The locations of the potential concurrent projects are shown in **Figure 6-2**. It is reasonable to anticipate that mitigation measures for fugitive dust and gaseous emission would be implemented at these construction sites as well to reduce the impact generated. In all circumstances, it is believed that best management practice will be implemented for all concurrent projects. Moreover, it is recommended that the contractors of all the concurrent projects in the vicinity should have close liaison to avoid any dusty activities to be taken in place at the same time or at locations nearby to minimise the cumulative dust impact.

6.2.4 Fugitive dust emission arising from construction activities can be effectively suppressed by incorporating proper mitigation measures into work procedures through contractual clauses with reference to EPD's Recommended Pollution Control Clauses for Construction Contracts, where applicable, good site management, and close monitoring by the resident engineers. The contractor shall be required to follow the requirements of the Air Pollution Control (Construction Dust) Regulation for demolition and construction of the project. With the adoption of the above measures, it is expected that emission of construction dust can be controlled.

Construction Gaseous Emission Impact

6.2.5 There will be potential impacts from the criteria pollutants (e.g. nitrogen oxides (NOx), sulphur dioxide (SO_2), and carbon monoxide (CO)). Emission from diesel trucks for the haulage of materials and construction plants will contain high percentage of smoke particulate and unburned hydrocarbons in comparison with petrol driven vehicles. Ultra-low sulphur diesel (ULSD) with sulphur content not exceeding 0.001% by weight will be used as fuel to minimize SO_2 emission. In all circumstances, the contractor will be required to observe all relevant regulations and maintain all equipment in good condition to avoid any excessive emission. Under the Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulation, only approved or exempted non-road mobile machineries (including mobile generator, air compressor, excavator, crawler crane, bulldozer and etc.) with a proper label are allowed to be used in the construction site. With reference to other similar scale projects, the number of on-site diesel/ petroleum fuelled machinery (~5 machineries) to be used for construction works is limited due to the small size of the work site.

6.2.6 In addition, availability of electricity supply during construction of the project will be explored and such requirement will be specified in future contract. If available, contractor should maximise use of electricity and with least reliance of diesel fuelled equipment (e.g. for electricity powered stationary equipment such as pump instead of using generator).

6.3 Mitigation Measures for Fugitive Dust Emission and Gaseous Emission

6.3.1 Fugitive dust and gaseous emission arising from construction activities can be effectively suppressed by incorporating proper mitigation measures into work procedures through contractual clauses, good site management, and close monitoring by the resident engineers. The contractor shall be required to follow the requirements of the Air Pollution Control (Construction Dust) Regulation. With the adoption of the above measures, it is expected that emission of construction dust can be controlled. The recommended mitigation measures are described below. In addition, EPD's recommended pollution control clause for construction contracts will be incorporated and required in future tender document to ensure that all relevant environmental protection and pollution control ordinances are observed and complied with.

General Site Management

6.3.2 Appropriate working methods should be devised and arranged to minimise dust emissions and to ensure any installed control system and/or measures are operated and/or implemented in accordance with their design merits. No free falling of construction debris should be allowed, which should be let down by hoist or enclosed tunnel to the ground.

6.3.3 A high standard of housekeeping shall be maintained. Any piles of materials accumulated on or around the work areas shall be cleaned up regularly. Cleaning, repair and maintenance of all plant facilities within the work areas shall be carried out in a manner that does not generate fugitive dust emissions. Prior to cleaning, the materials should be handled properly to prevent fugitive dust emission. Any exposed earth shall be properly treated by compacting or hydro seeding, within 6 months after the last construction activity.

6.3.4 Frequent mist/ water spraying should be applied on dusty areas and among dusty activities such as excavation work. The frequency of spraying will depend upon local conditions such as rainfall, temperature, wind speed and humidity. The amount of water spraying should be just enough to dampen the material without over-watering which could result in surface water runoff.

6.3.5 It is also recommended that the environmental officer of the contractor should conduct regular audit to ensure that all practical mitigation measures are properly implemented onsite and there is no excessive dust emission.

Vehicles and Unpaved Site Roads

6.3.6 Dust emission from unpaved roads comes predominantly from travelling of vehicles. Areas within the site where there are regular vehicle movements should have an approved hard surface. Speed controls at an upper limit of 10km/hr should be imposed and their movements should be confined to designed roadways within the site. All dusty vehicle loads should have side and tail boards covered by tarpaulin extending at least 300mm over the edges of the side and tail boards. Wheel-wash troughs and hoses should be provided at exit points of the site.

Material Stockpiling and Handling

6.3.7 The amount of stockpiling should be minimised where possible. Construction material or debris should be covered and stored inside enclosed areas. Other control measures such as enclosed or semi-enclosed windboard should be used, where applicable, to minimise dust emission. Regular watering is needed at areas such as storage piles, where there could be potential dust emission.

Maximising Use of Electric Power Supply

6.3.8 Only approved Non-road Mobile Machinery (NRMM) should be used for construction work with respect to the Air Pollution Control (Non-road Mobile Machinery) (Emission)

Regulation. Exempted NRMMs shall be avoided. Electrified NRMMs should be deployed as far as practicable. In addition, electric power supply shall be provided for onsite machinery as far as practicable to minimize PM and gaseous emissions.

6.3.9 The dust control measures detailed below shall also be incorporated into the Contract Specification where practicable as an integral part of good construction practices:

- The area at which demolition work takes place shall be sprayed with water or a dust suppression chemical immediately before, during and immediately after the operation so as to maintain the entire surface wet;
- Impervious dust screens or sheeting shall be used to enclose the whole wall to a height of at least 1m higher than the highest level of the structure being demolished;
- Any dusty materials remaining after a stockpile is removed shall be wetted with water and cleared from the surface of roads or streets.
- Plan site layout so that machineries, dust causing activities and stockpiling are away from receptors as far as possible;
- Higher site hoarding (not less than 2.4m) should be implemented where there are receptors at close proximity to the construction site and dusty activities; and
- Haul road shall be away from the project boundary as much as possible.

6.4 Construction Noise Impact

6.4.1 During the construction phase of the Proposed Development, major noise impacts would arise from piling works, operation of Powered Mechanical Equipment (PME), and construction-related traffic.

Construction Noise Criteria

6.4.2 Construction noise is controlled under the Noise Control Ordinance (NCO) which prohibits the use of powered mechanical equipment (PME) during the restricted hours (7 p.m. to 7 a.m. on normal weekdays and any time on a public holiday, including Sunday) without a valid Construction Noise Permit (CNP) from the Authority. The criteria and procedures for issuing such a permit are specified in the "Technical Memorandum on Noise From Construction Works Other than Percussive Piling" (TM1). While there is no planned construction works to be carried out during the restricted hours, TM1 should be followed in case there is any need to carry out works in such time period in future.

6.4.3 With effect from 1 November 96, the use of specified powered mechanical equipment (SPME) for carrying out construction work other than percussive piling and/ or the carrying out of prescribed construction work (PCW) within a designated area are also brought under control. The relevant technical details are provided in the "Technical Memorandum on Noise from Construction Work in Designated Areas" (TM2).

6.4.4 Percussive pilling is controlled similarly by a construction noise permit system and described in the NCO and the "Technical Memorandum On Noise From Percussive Piling" (TM3) which restrict the number of hours during which piling can be conducted. Percussive piling is prohibited between 7 p.m. and 7 a.m. and on holidays (including Sundays). Percussive piling during the daytime (i.e. between 7 a.m. and 7 p.m. on any day not being a holiday) may be carried out in accordance with the permitted hours and other conditions under a valid construction noise permit.

6.4.5 For construction works other than percussive piling, although GW-TM does not provide control over daytime construction activities, noise limits as shown in below Table are set out in the ProPECC PN 1/24.

Table 6-2 Noise Limit for Daytime Construction Activities

NSR	0700 to 1900 Hours on Any Day Not Being a Sunday or General Holiday, Leq (30 min), dB(A)
Dwelling	75
School	70 (65 during examination)

Notes:
(i) The above standards apply to uses which reply on opened windows for ventilation;
(ii) The above standards shall be viewed as the maximum permissible noise levels assessed at 1 m from the external façade.

Noise Mitigation Measures

6.4.6 Sufficient noise mitigation measures should be introduced in the development to alleviate potential noise impacts on nearby NSRs. The Contractor(s) will be required under the contract to ensure regular maintenance of all plant and equipment, and that noise generation at source would be minimized and practicable noise mitigation measures would be in use. The Contractor(s) will be required to adopt quiet type construction plants (e.g. EPD's quality powered mechanical equipment (QPME) inventory), wherever practicable. Similarly, quieter method other than percussive piling will be adopted as far as practicable for any piling works subject to ground investigation result (which usually dictates the piling method). Movable noise barriers will also be erected around noisy plants in order to minimize noise generation at source. With these measures in place noise generation due to construction activities would be minimized.

6.4.7 The following general noise mitigation measures are recommended for implementation:

- Application of properly designed silencers, mufflers, acoustically dampened panels and acoustic sheds or shields, etc.;
- Making use of onsite electricity and use of electric-powered equipment where applicable instead of diesel-powered or pneumatic-powered equipment;
- Erecting noise enclosures/ movable noise barriers around noisy plants;
- Only well-maintained plants should be operated on-site;
- Plants should be serviced regularly during the construction programme;
- Noisy activities can 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;
- Noisy equipment such as emergency generators shall always be sited as far away as possible from noise sensitive receivers;
- Location of noise emitting plants at maximum possible distances from sensitive receivers;
- Contractual clauses for construction works;
- Schedule of noisy operations during non-restricted hours where possible; and
- Quieter construction method & equipment such as using high pressure water jetting, quieter type wire saws or diamond wire saws, hydraulic crusher for concrete breaking for demolition works, handheld concrete crushers, silent piling by press-in method for foundation works.

6.4.8 The above-mentioned noise mitigation measures, and all other relevant measures in "Recommended Pollution Control Clauses for Construction Contracts" from EPD website and ProPECC PN 1/24 will be included in the contractual clauses for the contractor(s)

to follow and implement during the construction stage for construction of the proposed development. Furthermore, the Project Proponent will be recommended to specify the quieter construction equipment/methods in the construction contract to adopt through the preparation of a Construction Noise Management Plan (CNMP) by the successful tenderer with reference to ProPECC PN 1/24. With these measures in place, construction noise due to the Proposed Development can be minimized, and no significant noise impact is anticipated.

6.5 Water Quality and Construction Wastewater Impact

Relevant Legislation, Standards and Guidelines

6.5.1 Relevant legislations and standards include:

- Water Pollution Control Ordinance (Cap. 358); and
- Hong Kong Planning Standards and Guidelines.

6.5.2 Other relevant guidelines include:

- Water Supplies Department (WSD) Water Quality Criteria;
- Technical Memorandum on Standards for Effluents Discharged into Drainage and Sewerage Systems, Inland and Coastal Waters (TM-DSS);
- Professional Persons Environmental Consultative Committee Practice Note 2/24 "Construction Site Drainage" (ProPECC PN 2/24);
- Professional Persons Environmental Consultative Committee Practice Note 1/23 "Drainage Plans subject to Comment by the Environmental Protection Department" (ProPECC PN 1/23); and
- Sewerage Manual (SM) and the Guidelines for Estimating Sewage Flows for Sewage Infrastructure Planning (GESF).
- Environmental, Transport and Works Bureau (ETWB) Technical Circular (Works) No. 5/2005 Protection of natural streams/rivers from adverse impacts arising from construction works
- Drainage Services Department (DSD) Technical Circular and Practice Notes
- EPD Guidelines for Estimating Sewage Flows for Sewage Infrastructure Planning (version 1.0) (Report No. EPD/TP 1/05)

Source of Construction Wastewater

6.5.3 Construction activities would inevitably have the potential to generate wastewater and affect the nearby water quality. Works should be carried out in such a manner so as to minimise significant impacts on local water bodies. Activities that are likely to cause water pollution include:

- Demolition and construction runoff and drainage;
- Sewage effluent from the site; and
- Accidental spillage of chemical, e.g. oil, diesel, solvents etc.
- Liquid spillage, e.g. oil, diesel, solvents etc.

6.5.4 Demolition and construction runoff contain increased loads of sediments, other suspended solids and contaminants. Potential sources of pollution include runoff and erosion from the site surfaces, drainage channels, bentonite slurries and runoff from dust suppression sprays, fuel, oil and lubricants from vehicles and other equipment.

6.5.5 Sewage effluent could be potentially generated from eating areas, temporary site facilities (e.g. toilets) and waste disposal area for onsite construction workforce. The sewage effluent is characterized by high levels of biochemical oxygen demand (BOD), ammonia, E. coli and some oil/ grease.

6.5.6 Liquid spillage could be caused by general construction works to contaminate surface soils, e.g. oil, diesel, solvents etc. The contaminated soil may be washed away through runoff from construction site and enter nearby stormwater drains, thus leading to negative adverse water quality impact.

6.5.7 The effects on water quality from these construction activities are likely to be minimal provided that site boundaries are well maintained and goods site practice is observed to ensure that litter and fuels are managed, stored, and handled properly.

Mitigation Measures

6.5.8 The good practice given in the Practice Notes for Professional Persons on "Construction Site Drainage" (ProPECC PN 2/24) in controlling water pollution at construction site shall be implemented during the construction phase of the Proposed Development. Soil erosion from the construction site can be minimised through good on-site management practices by implementing viable erosion control measures which should be incorporated in contract clauses. The main practices provided in the above-mentioned document (i.e. ProPECC PN 2/24) are also summarized in the following paragraphs which should be enforced to prevent unacceptable construction stage impacts and for compliance with the statutory criteria.

A. Construction Site Runoff

- Exposed soil surfaces should be protected from rainfall through, for example, by covering temporarily exposed slope surfaces or stockpiles with tarpaulin and protect temporary access roads by crushed stone or gravel;
- Exposed soil areas should be minimised to reduce the potential for increased siltation and contamination of runoff;
- Minimise the time that soil surfaces are exposed;
- Slow down water run-off flowing across exposed soil surfaces;
- Channels, earth bunds or sand bag barriers should be provided on site to properly direct surface runoff through drainage systems;
- Oil interceptors are also recommended to be provided for stormwater drains near plant maintenance/ repair areas, where necessary.
- Manholes (including newly constructed ones) should be adequately covered or temporarily sealed so as to prevent slit, construction materials or debris from getting into the drainage system;
- Construction works should be programmed to minimise soil excavation works where practicable during rainy conditions;
- Drainage facilities must be adequate for the controlled release of storm flows;
- Sedimentation basins and sand traps designed in accordance with the requirements of ProPECC Note PN 2/24 should be installed at the construction site for collecting surface runoff. Perimeter channels at site boundaries should be provided where necessary to intercept surface runoff from outside the site. Silt removal facilities, channels and manholes should be maintained and deposited silt and grit should be removed regularly;
- There should be no direct discharge without treatment of construction site runoff into the nearby streams and public drains;

- The Contractor shall prepare a construction site drainage management plan with details of the construction phase drainage system proposed to be constructed; discharge location(s); and screening facilities; and
- The Contractor(s) shall apply for a discharge licence under the WPCO and the discharge shall comply with the terms and conditions of the licence throughout the construction phase.
- Construction works should be arranged so that there should be no disturbance to water quality at the nearby stream. Construction site runoff should be intercepted by drains so that there will be no direct discharge without treatment into the nearby stream and other sensitive areas.

B. Wastewater from Construction Site

- Sewage generated from the construction workforce should be contained by chemical toilets before connection to public foul sewer can be provided. The number of chemical toilets required would be subject to the capacity of the chemical toilets, and contractor's practices/ work programme. The Contractor(s) will be required to provide an estimation on the amount of sewage to be generated and to provide sufficient number of chemical toilets for construction workers. The chemical toilets should be serviced and cleaned by a specialist contractor at regular intervals. No discharge of sewage into nearby environment will be allowed during construction stage. Such requirements will be incorporated into relevant contractual clauses of this Proposed Development for proper implementation;
- Foul water from canteens on-site, if any, should also be contained by chemical toilets before connection to public foul sewer can be provided;
- Vehicle wheel washing facilities should be provided at every site exit such that mud, debris, etc. deposited onto the vehicle wheels or body can be washed off before leaving the site area;
- 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; and
- If bentonite is used, bentonite slurry should be reconditioned and reused as far as practicable. Spent bentonite should be kept in a separate slurry collection system for disposal at a marine spoil grounds subject to obtaining a marine dumping licence from EPD. If used bentonite slurry is to be disposed of through public drainage system, it should be treated to the respective effluent standards applicable to foul sewers, storm drains or the receiving waters as set out in the WPCO Technical Memorandum on Effluent Standards in accordance with ProPECC PN 2/24.

C. Oils and Solvents

- Spillage of fuel oils or other polluting fluids should be prevented at source. It is recommended that all stocks should be stored inside proper containers and sited on sealed areas, preferably surrounded by berms;
- Regular site inspections to ensure the proper implementation of the above measures shall be carried out;
- A chemical waste producer must be registered by the Contractor if chemical waste would be produced from the construction site;
- Control of chemical waste shall observe and comply with the Waste Disposal Ordinance (Cap. 354) and its subsidiary regulations, particularly the Waste Disposal (Chemical Waste) (General) Regulation;

- Any maintenance facilities should be located on hard standings within a bunded area, and sumps and oil interceptors should be provided; and
- Maintenance of vehicles and equipment involving activities with potential for leakage and spillage should be undertaken with the areas appropriately equipped to control these discharges.

6.6 Construction Waste Disposal

Legislation

6.6.1 The principal legislation controlling waste materials in Hong Kong is the Waste Disposal Ordinance (WDO) (Cap. 354) and its subsidiary regulations including Waste Disposal (Chemical Waste) (General) Regulation (Cap. 354C) and Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Cap. 354N). Other relevant ordinance includes Land (Miscellaneous Provisions) Ordinance (Cap 28) and Public Health and Municipal Services Ordinance (Cap 132) - Public Cleansing and Prevention of Nuisances Regulation. Other relevant guidelines which cover how applicant and contractor should comply with the regulations are as follows:

- Waste Disposal Plan for Hong Kong (December 1989), Planning, Environment and Lands Branch Government Secretariat, Hong Kong Government;
- Environmental Guidelines for Planning In Hong Kong (2025), Hong Kong Planning Standards and Guidelines, Hong Kong Government;
- Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes (2023), EPD, Hong Kong Government;
- Works Branch Technical Circular (WBTC) No. 2/93, Public Dumps, Works Branch, Hong Kong Government;
- WBTC No. 2/93B, Public Filling Facilities, Works Branch, Hong Kong Government;
- WBTC No. 12/2000, Fill Management; Works Bureau, Hong Kong SAR Government;
- DevB TCW No. 8/2010, Enhanced Specification for Site Cleanliness and Tidiness. Development Bureau, Hong Kong SAR Government;
- WBTC No. 12/2002, Specification Facilitating the Use of Recycled Aggregates. Works Bureau, Hong Kong SAR Government;
- DEVB TC(W) No. 6/2010, Trip Ticket System for Disposal of Construction & Demolition Materials, Development Bureau, Hong Kong SAR Government;
- Practice Note for Authorized Persons and Registered Structural Engineers – Construction and Demolition Waste (PNAP ADV-19, also known as PN for AR&RSE No.243);
- Code of Practice on the Handling, Transport and Disposal of Asbestos Waste (2020), EPD, Hong Kong Government;
- A Guide to the Chemical Waste Control Scheme; and
- Monitoring of Solid Waste in Hong Kong 2024.

Construction Waste Impact

6.6.2 Construction activities for the Proposed Development will generate waste materials requiring appropriate management and disposal. Likely range of waste types includes:

- C&D materials
- General refuse generated by the workforce (about 97.5 kg/day based on 150 workers; to be disposed of at landfill);

- Chemical and oily wastes due to maintenance of equipment (say no more than 50 L per month; to be delivered to Chemical Waste Treatment Facilities for treatment by licensed contractor); and
- Asbestos containing materials

6.6.3 C&D materials comprise mainly of unwanted materials, including surplus materials arising from excavations that are generated from the works (e.g. site clearance and demolition works of substructure). Inert soft C&D materials comprise of soil, sand, clay, slurry, etc., while hard C&D materials comprise of crushed concrete, asphalt, rock, etc. The amount of non-inert C&D materials generated during site clearance would be minor (as there is little vegetation at the Application Site). C&D materials may comprise different types of materials, including:

- Non-inert C&D materials (e.g. bamboo, timber, paper, metal, glass, plastic, packaging wastes, etc.) decompose and are not suitable for land reclamation. Non-inert C&D materials should be reused or recycled as far as possible. For those non-inert C&D materials that cannot be reused or recycled should be disposed of at landfill as last resort;

- Inert C&D materials do not decompose (e.g. soil, rock debris, rubble earth, concrete, etc.) and is suitable to reuse as filling materials for land reclamation and site formation. Inert C&D materials could be reused on-site as filling materials. For those inert C&D materials that cannot be reused should be delivered to a Public Fill Reception Facilities.

6.6.4 The general waste management strategy is to avoid waste generation in the first place. If that is unavoidable, source reduction and segregation should be exercised as far as practicable and at the same time, recycling and reuse should be adopted to salvage as much as possible all the recyclable and reusable materials.

Identification and Evaluation of Waste Management Implications in Construction Phase

C&D Waste

6.6.5 C&D material of different types may be mixed together, thus not possible to recycle C&D material subsequently and increase burden to landfill facilities. In accordance with the development scheme, the existing building will be demolished. An approximate total of 11,670m^3 will be generated during demolition stage. Approximate 10,500m^3 of inert C&D (i.e. 90% of total demolition materials) and 1,170m^3 of non-inert C&D materials (i.e. 10% of total demolition materials) will be generated during the demolition works. There is minimal excavation required because aboveground carpark instead of basement carpark will be provided. In addition, approximate total of 4,760m^3 will be generated during superstructure stage. Approximate 3,810m^3 of Inert C&D materials (i.e. 80% of total superstructure materials) and 950m^3 of non-inert C&D materials (i.e. 20% of total superstructure materials) will be generated during the superstructure works.

General refuse

6.6.6 Without any handling arrangement/ control measures in place, the storage, handling and disposal of general refuse have the potential to give rise to some environmental impacts. These include odour and hygienic problem if waste is not collected frequently, windblown litter, water quality impacts if waste enters water bodies, and visual impact. To estimate the general refuse generated during construction phase, an assumption of 150 workers per day with 0.65 kg per worker per day has been made, an approximate total of 97.5kg of general refuse (i.e. 0.65kg X150 workers) will be generated per day.

Chemical Waste

6.6.7 The possible chemical waste includes oil and grease associated with plant maintenance, hydraulic fluid from plant machinery, scrap batteries from vehicle maintenance, and used paint, cleaners, solvents used in maintaining mechanical equipment. Chemical wastes arising during the construction phase may pose environmental, health and safety hazards if not properly labelled, packaged, handled, stored and disposed of in an appropriate manner. For chemical waste, only a small amount will be generated during the construction period, estimated at no more than 50 L per month. The amount of chemical waste to be generated shall be quantified in the Waste Management Plan (WMP) as part of the Environmental Management Plan (EMP) to be prepared by Contractor in subsequent construction stage.

Asbestos Containing Materials

6.6.8 The proposed redevelopment will involve demolition of existing building. It was built in the 1980s and building insulation materials may contain asbestos. Hence, demolition of the existing building may possibly generate asbestos waste. Approximate 1000kg asbestos containing materials will be generated during demolition work.

6.6.9 The estimated quantities and types of waste to be generated by the project are summarized in **Table 6-3**.

Table 6-3 Estimated Quantities of C&D Materials to be Generated

Waste material	Estimated Waste Generation	Proposed Handling Method and Destination
Inert C&D Materials	~14,310m^3 (10,500m^3 during demolition period and 3,810m^3 during the superstructure period)	~99% (i.e. 14,170m$^{3)}$ would be delivered to public fill reception facility (i.e. Tuen Mun Area 38 Fill Bank) ~1% (i.e. 140m^3) would be reused on-site.
Non-inert C&D Materials	~2,120m^3 (1,170m^3 during demolition period and 950m^3 during the superstructure period)	Recyclable waste to be sorted and segregated from non-recyclable waste; ~110m^3 of recyclable wastes to be collected by/delivered to recycler; Remaining ~2,010m^3 of non-recyclable wastes to be disposed of at designed landfill site
General Refuse	~97.5kg/day	Collected by refuse collection vehicle and disposed of at designated landfill site
Asbestos Containing Materials	1000 kg	Collected by licensed contractor and disposed of as chemical waste at designated landfill site
Chemical Waste	Anticipated to be limited (say, <50 litre / month)	Collected by licensed chemical waste collector and delivered to Chemical Waste Treatment Centre or equivalent

Notes:

(i) The above estimated quantities are subject to the detailed design stage.

(ii) The destination of inert C&D materials is subject to the designation by the Public Fill Committee according to DEVB TC(W) No, 6/2010

(iii) *The disposal of non-inert C&D materials at designated landfill shall be subject to agreement with the relevant section of the EPD*

Mitigation Measures during Construction Phase

6.6.10 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 hierarchy is as follows. The waste management strategy is to avoid waste generation in the first place (i.e. in descending order of preference as listed below).

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

6.6.11 The following section describes the best management practices in construction site to avoid or further reduce the potential environmental impacts associated with the handling, collection and disposal of construction and chemical wastes arising from the construction of the Proposed Development.

6.6.12 Contractor will be required to develop and implement a proper waste management plan (WMP) according to the PNAP ADV-19. The WMP should include designation of areas for the segregation and temporary storage of materials for future use or recycling, the hierarchy for waste management on and off-site as well as a complete list of mitigation measures for handling excavated materials.

6.6.13 It will be the contractor's responsibility to ensure that only reputable licensed waste collectors are used and that appropriate measures to reduce adverse impacts, including windblown litter and dust from the transportation of these wastes, are employed. In addition, the contractor must ensure that all the necessary permits or licences required under the Waste Disposal Ordinance are obtained for the construction phase.

6.6.14 It can be achieved through careful planning of works method and material consumption before ordering of materials. Material should be properly stored and protected to reduce damage and contamination to reduce waste generation as well. Non-timber formwork, or used timber, instead of virgin timber, should be adopted where possible.

6.6.15 If that is unavoidable, source reduction and segregation should be exercised as far as practicable and at the same time, recycling and reuse should be adopted to salvage as much as possible all the recyclable and reusable materials.

6.6.16 In order to monitor the disposal of C&D material at landfills and public fill reception facilities, as appropriate, and to control fly tipping, a trip-ticket system should be included as one of the contractual requirements to be implemented by Contractor. Reference shall be made to DEVB TCW No.6/2010 for details.

C&D Materials

6.6.17 On-site sorting of C&D materials will be recommended. On-site sorting can be achieved by avoiding the generation of "mixed waste" through good site control. Waste generated by construction activities should be sorted into inert C&D materials and non-inert C&D materials. Adequate areas for sorting and storage of segregated materials should be provided onsite. The inert C&D materials which comprise soil, rock, concrete, brick, cement plaster/mortar, inert building debris, aggregates and asphalt shall be reused in site formation works (such as backfilling).

6.6.18 Used timber in good condition will be reused in other contract and construction site of the contractor to reduce the amount of timber wastes.

6.6.19 Surplus inert construction material and other non-inert C&D materials which comprises metal, timber, paper, glass, etc. shall be recycled. Recycle bins should be provided

onsite and workers should be trained and encouraged to segregate recyclable and non-recyclable wastes upon disposal.

6.6.20 The Applicant and its contractor will consider to use dump trucks equipped with GPS or an equivalent system for tracking the delivery of inert and non-inert C&D material from the site to the designated disposal location. The trip-ticket system and other measures for transportation, storage and collection of waste, such as using trucks with cover or enclosed containers for waste transportation will be implemented. Disposal and transportation of C&D materials are recommended before foreseeable inclement weather such as typhoon or heavy rain. The stockpiled soil shall be properly covered with tarpaulin when heavy storms are forecast.

Chemical Waste

6.6.21 Any unused chemicals and those with remaining functional capacity should be recycled as far as possible. Chemical waste will be handled in accordance with the Code of Practice on the Packaging, Handling and Storage of Chemical Wastes. All chemical waste that cannot be recycled or re-refined in the case of waste lubricants should be collected by a licensed chemical waste collector and disposed of Chemical Waste Treatment Centre (CWTC) at Tsing Yi. Provided that the handling, storage and disposal of chemical waste are in accordance with these requirements, adverse waste management implications, including the potential hazards, air and odour emissions, noise, wastewater discharge, ecology and public transport, associated with handling, storage and disposal of chemical waste are not expected.

6.6.22 Chemical and oily wastes generated from the construction activities, vehicle and plant maintenance and oil interceptors should be disposed of as chemical waste in strict compliance with the Waste Disposal (Chemical Waste) (General) Regulations. Any person who produces or causes to produce chemical waste is required to register with EPD. The Applicant and its contractor will duly follow the requirement and register with EPD as a chemical waste producer.

Asbestos Containing Materials

6.6.23 Asbestos waste is categorised as chemical waste under the Waste Disposal (Chemical Waste) Regulation. Asbestos investigation should be conducted by a registered asbestos consultant prior to demolition of existing building structure. The investigation should reveal the presence, quantity and location of Asbestos Containing Materials (ACM). Asbestos waste will be handled in accordance with the Code of Practice on the Handling, Transportation and Disposal of Asbestos Waste issued by EPD. Should there be any ACM found in the existing buildings, any demolition works of these buildings should engage Registered Asbestos Contractors and the asbestos waste should be collected and transported by the licensed waste collector to designated landfill site for secure burial in accordance with the "Code of Practice on the Handling, Transport and Disposal of Asbestos Waste" issued by the EPD. The latest designated landfill site is West New Territories (WENT) landfill in Nim Wan, Tuen Mun to receive asbestos waste.

General Refuse

6.6.24 Waste such as bamboo, contaminated plastic and glass, packaging waste and other organic materials will be considered as non-recyclable waste and disposed to landfills.

6.6.25 For general refuse (including food waste, paper, plastic bottles and aluminium cans, etc.), mitigation measures should include provision of a collection area where waste can be sorted, stored and loaded prior to removal from the site. Recyclable materials (i.e. paper, plastic bottles and aluminium cans) will be separated for recycling, in order to reduce the amount of general refuse to be disposed of at landfill.

6.6.26 The removal of general refuse from the site will be arranged on a daily basis or at least on every second day to minimize any potential odour impacts. Disposal of general refuse is recommended before foreseeable inclement weather such as typhoon or heavy rain.

6.6.27 The Applicant and its contractor will consider if recycling of food waste is practicable during the construction phase.

6.6.28 Waste disposal from construction site is subject to control under the Waste Disposal Ordinance.

6.7 Conclusion

6.7.1 Potential environmental impacts arising from construction activities of the Proposed Development, including dust emission, construction wastewater, noise and waste impacts have been qualitatively assessed. Potential environmental impacts are anticipated to be acceptable with the implementation of effective environmental mitigation measures. In conclusion, it is envisaged that construction phase environmental impacts arising from the Proposed Development would be acceptable.

7. OVERALL SUMMARY

7.1.1 An environmental assessment has been conducted for the proposed redevelopment to address the potential air quality, environmental noise, construction phase environmental impact and sewerage impact.

7.1.2 There is no air sensitive uses including openable window, fresh air intake and recreational uses within the recommended buffer zone from HKPSG with the proposed fixed glazing in place. Therefore, no adverse air quality impact due to traffic is anticipated. Chimney stacks are not identified within 200m of the Application Site, hence it is unlikely to have industrial emission impact.

7.1.3 Road Traffic Noise Impact Assessment has been carried out for the proposed redevelopment. With noise mitigation measures incorporated, including acoustic window (baffle type), enhanced acoustic balcony (baffle type), vertical acoustic fin, fixed glazing with or without maintenance window and door with auto-closing mechanism, the proposed redevelopment would not be subject to adverse road traffic noise impact.

7.1.4 Railway noise impact from open track section has been assessed. With building re-entrant design and vertical acoustic fins incorporated in the design, no unacceptable railway noise impact is anticipated. The predicted railway noise level would comply with the relevant criteria stipulated in the Noise Control Ordinance and Hong Kong Planning Standards and Guidelines.

7.1.5 Fixed Noise Impact Assessment has also been conducted. Single aspect building design, fixed glazing with or without maintenance window and noise barrier on top of retail building with sound absorptive material are proposed and incorporated at strategic locations. With the aforementioned noise mitigation measures in place, the predicted noise levels of all NSRs from all identified fixed noise sources within 300m study area comply with the criteria as stipulated in NCO. It can be concluded that the proposed redevelopment would not be subject to adverse fixed noise impact.

7.1.6 A consolidated figure showing all noise mitigation measures is presented in **Figure 7-1**.

7.1.7 Environmental implication during construction (including demolition) of the project has been appraised. With best management practice and relevant environmental mitigation measures implemented, no adverse construction phase environmental impact is anticipated.

7.1.8 No insurmountable environmental noise, air quality and construction phase environmental impact is anticipated with the recommended environmental mitigation measures properly implemented. The environmental acceptability of the proposed redevelopment is demonstrated in this study.

7.1.9 The Application Site was used for industrial purpose. A Land Contamination Assessment Plan was submitted in December 2021 under the approved S16 Planning Application No. A/YL/259 for the same Application Site. The applicant commits to conduct/update the land contamination assessment in later stage where necessary to ensure that remediation work, if required, should be properly implemented in prior to the commencement of construction work of the redevelopment. Relevant prevailing guidelines will be followed for all assessment and remediation works.

Figure

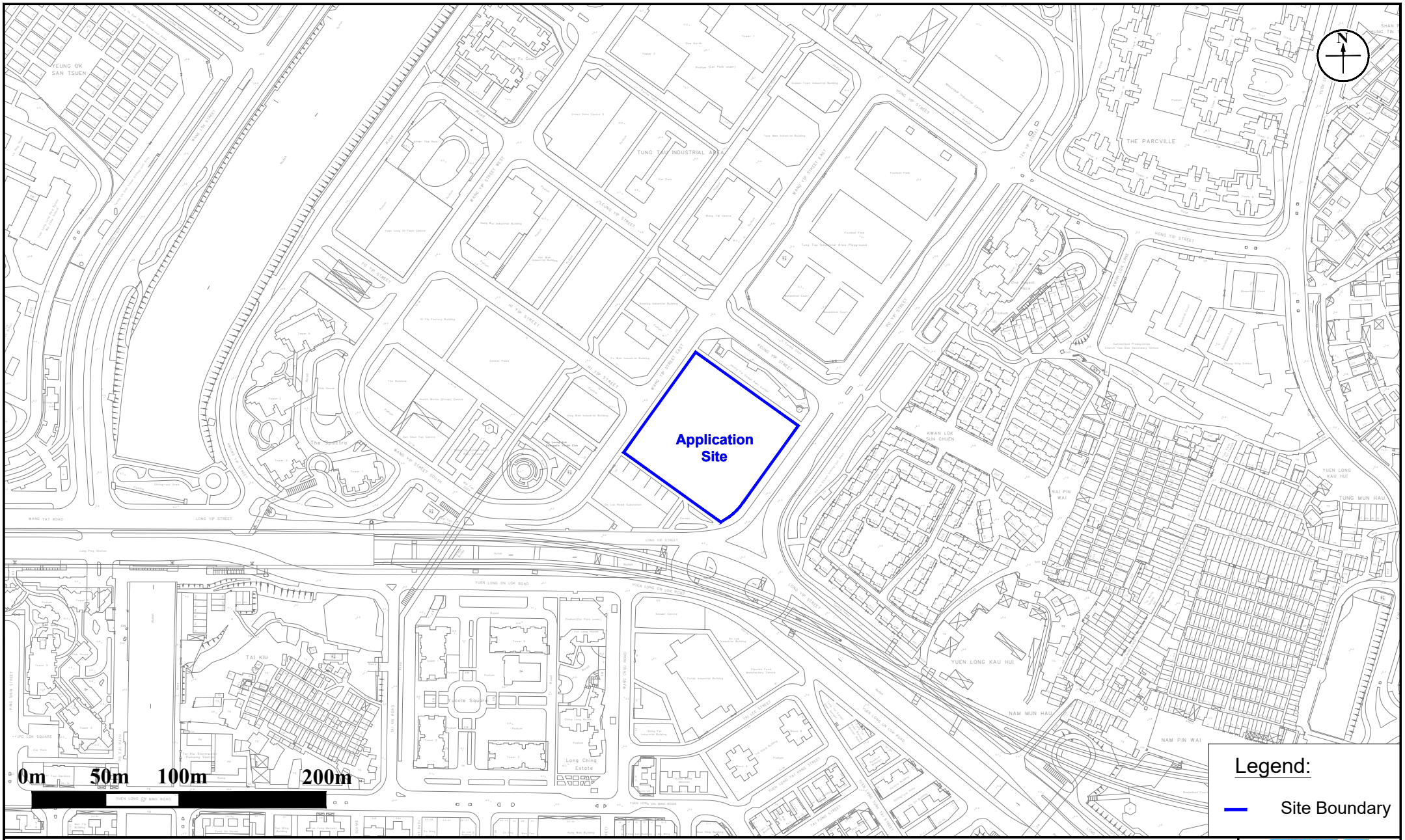


Figure: 1.1

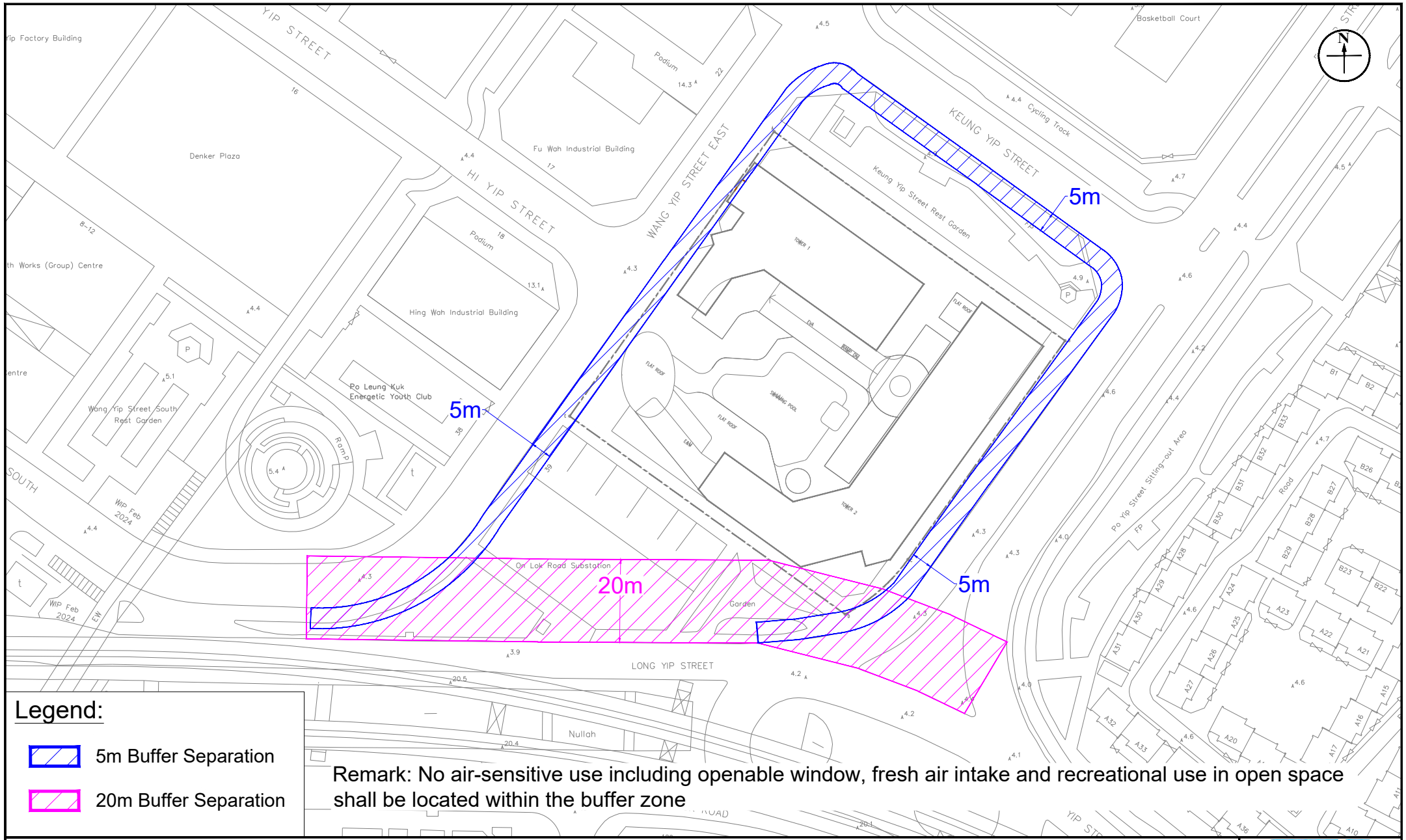
Title: Location of the Application Site and Its Environs

Project: Redevelopment of Lai Sun Yuen Long Centre at Nos. 21-35 Wang Yip Street East, YLTL 362

RAMBOLL

Drawn by:	CM
Checked by:	CC
Rev.:	4.0
Date:	Apr 2026

\\aphkfps3\Drive Q\Projects\GYULSYLCEI00\05 Assessments\02 Noise\02 Traffic\20260410\Fig 3.1_TNIA_NSR_250410.dwg



Remark: No air-sensitive use including openable window, fresh air intake and recreational use in open space shall be located within the buffer zone

Figure:	2.1a	RAMBOLL
Title:	HKPSG Vehicular Emission Buffer Distance for Nearby Road Network (Podium)	Drawn by: CM Checked by: CC
Project:	Redevelopment of Lai Sun Yuen Long Centre at Nos. 21-35 Wang Yip Street East, YLTL 362	Rev.: 4.1 Date: Jun 2026

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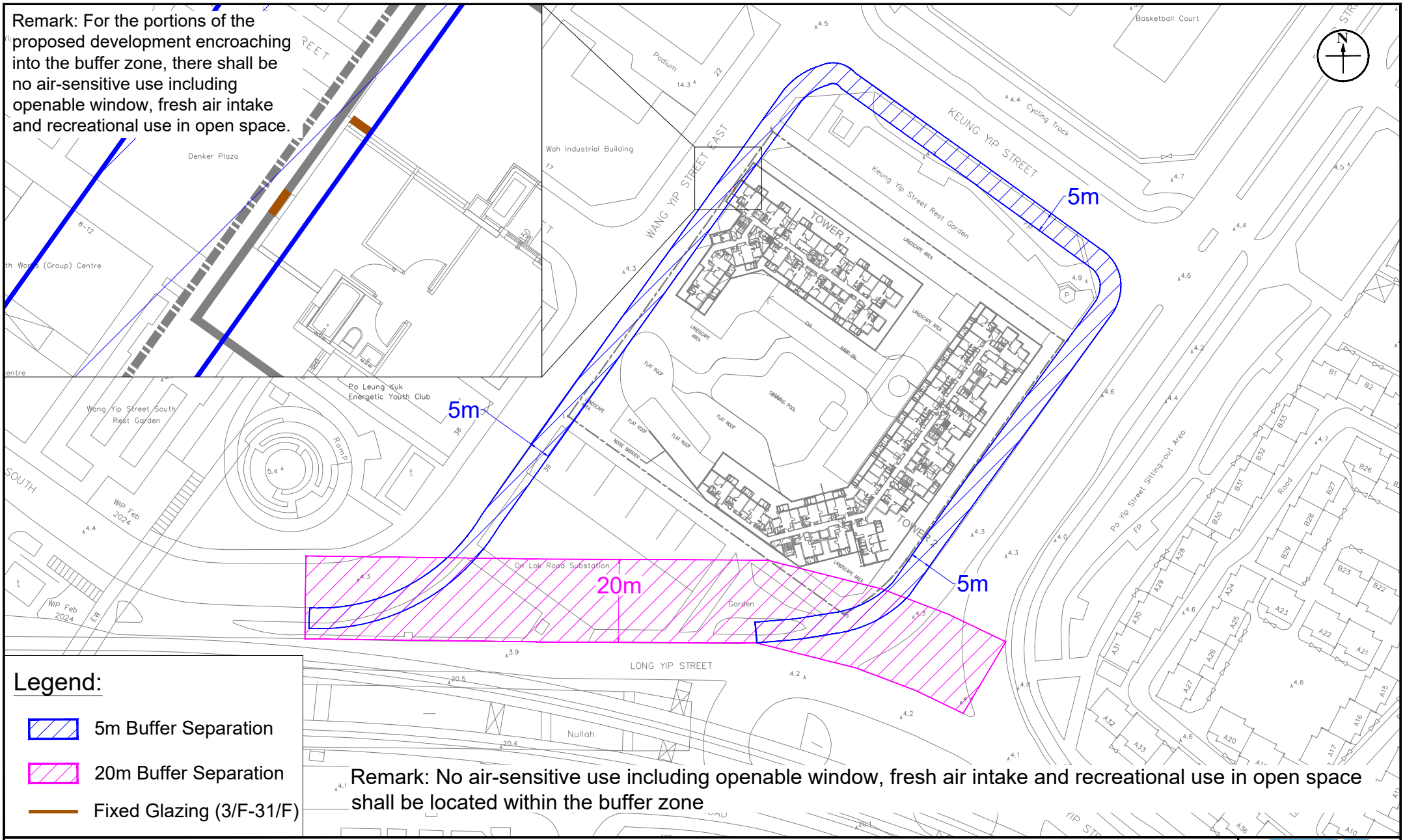

Figure:	2.1b	RAMBOLL
Title:	HKPSG Vehicular Emission Buffer Distance for Nearby Road Network (Residential Tower)	Drawn by: CM Checked by: CC
Project:	Redevelopment of Lai Sun Yuen Long Centre at Nos. 21-35 Wang Yip Street East, YLTL 362	Rev.: 4.1 Date: Jun 2026

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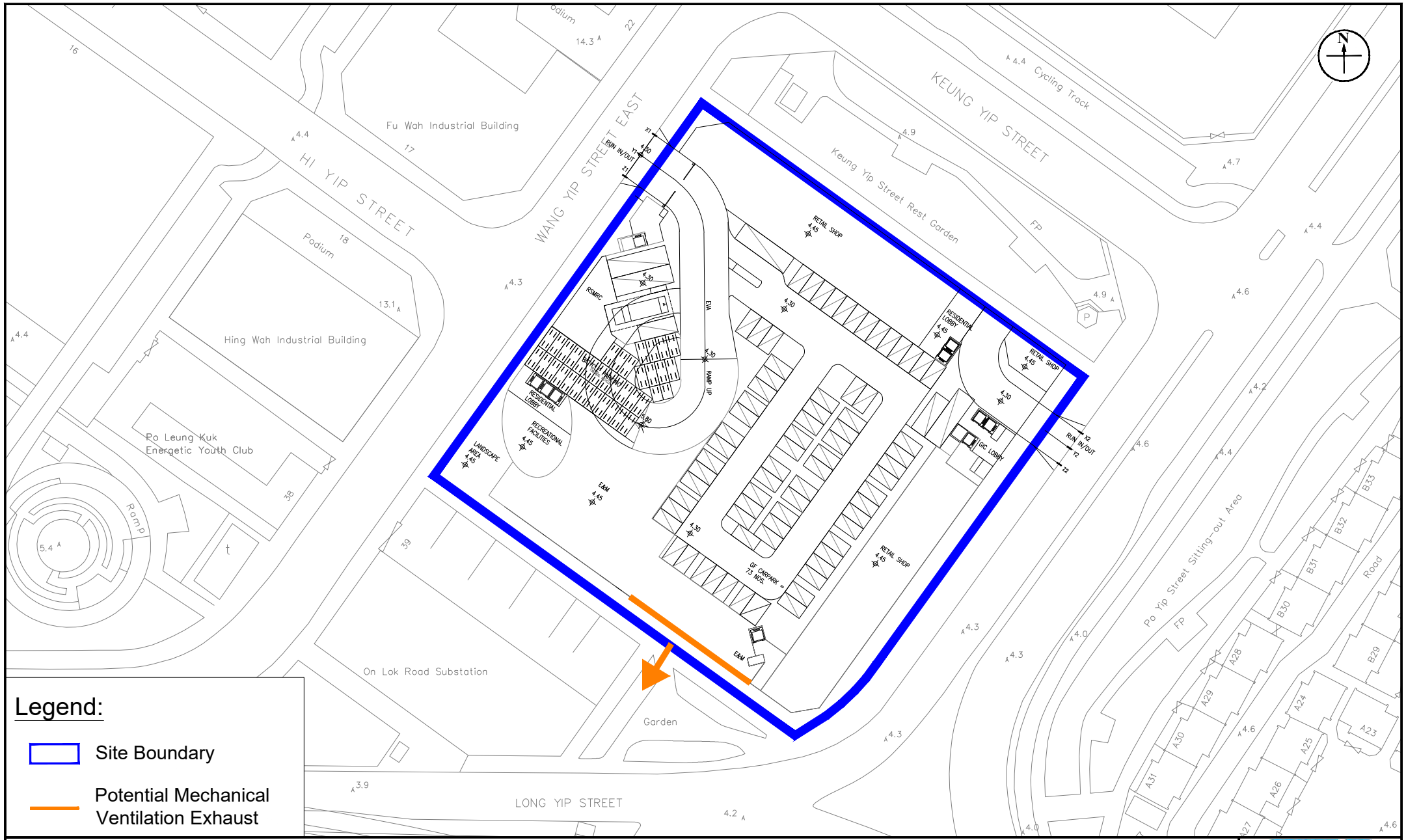

Figure: 2.2a	RAMBOLL
Title: Locations of Potential Mechanical Ventilation Exhaust (G/F)	Drawn by: AW
	Checked by: CC
Project: Redevelopment of Lai Sun Yuen Long Centre at Nos. 21-35 Wang Yip Street East, YLTL 362	Rev.: 4.1
	Date: Jun 2026

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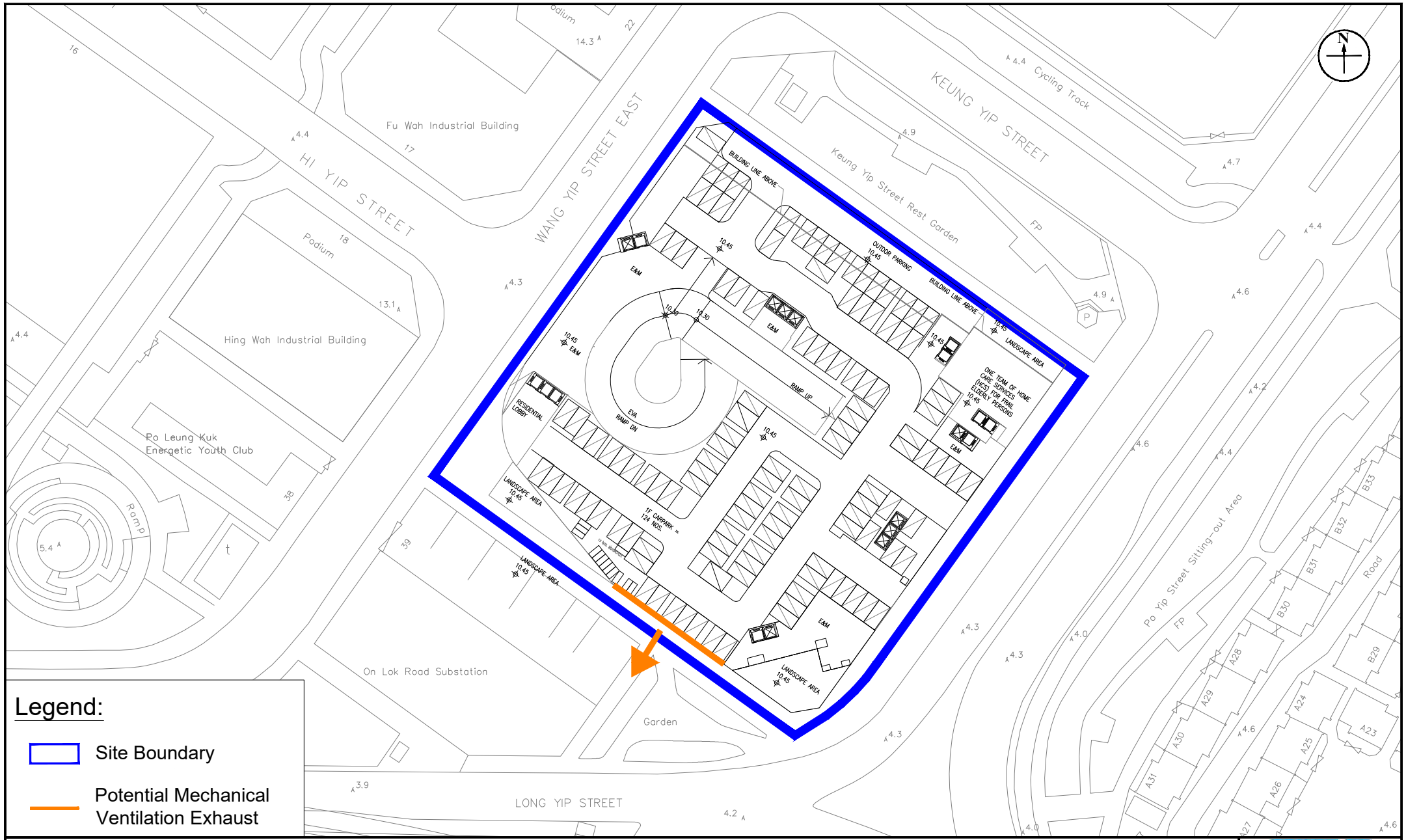

Figure: 2.2b	RAMBOLL
Title: Locations of Potential Mechanical Ventilation Exhaust (1/F)	Drawn by: AW
	Checked by: CC
Project: Redevelopment of Lai Sun Yuen Long Centre at Nos. 21-35 Wang Yip Street East, YLTL 362	Rev.: 4.1
	Date: Jun 2026

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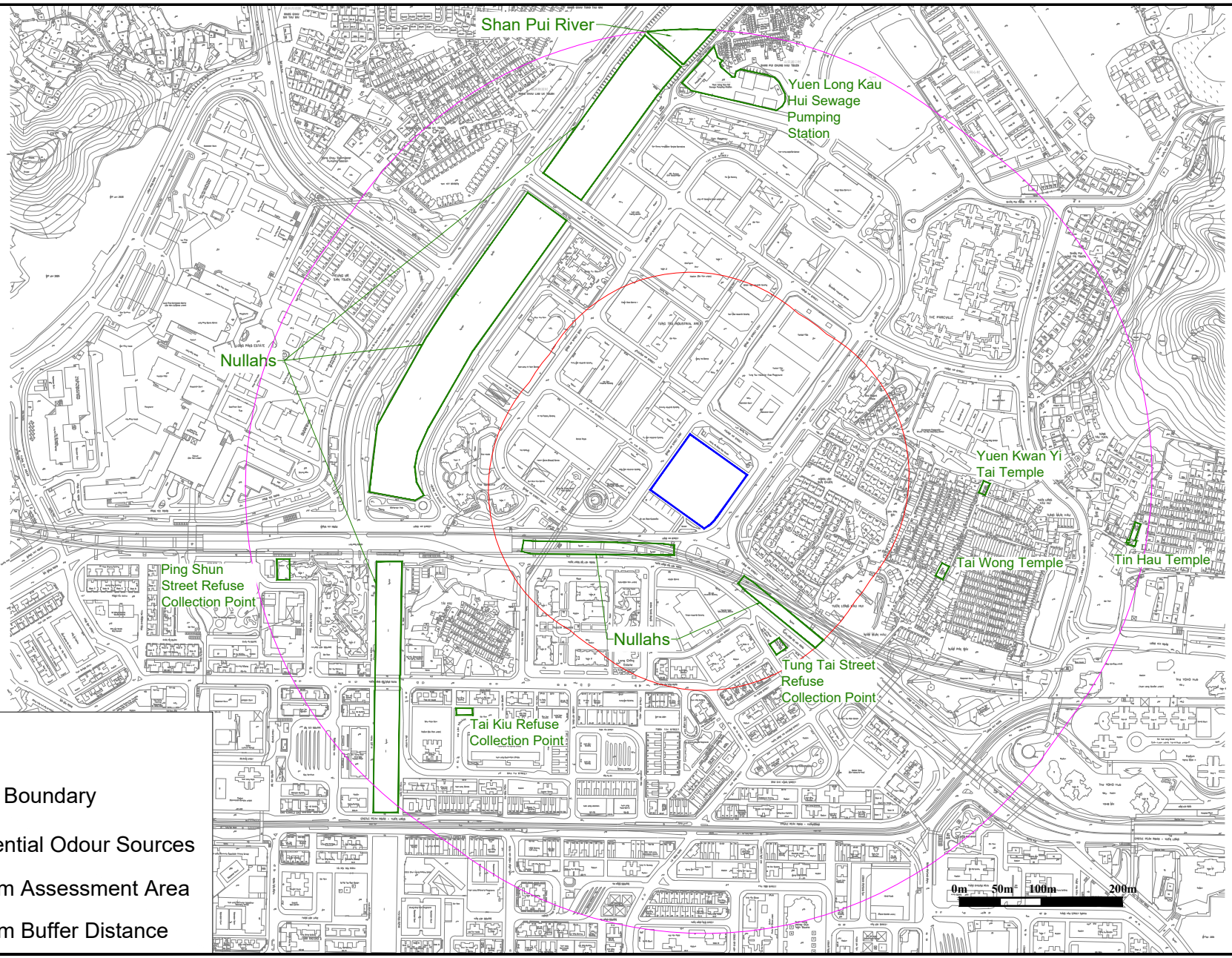

Figure: 2.3	RAMBOLL
Title: Locations of Identified Potential Odour Sources	Drawn by: AW
	Checked by: CC
Project: Redevelopment of Lai Sun Yuen Long Centre at Nos. 21-35 Wang Yip Street East, YLTL 362	Rev.: 4.1
	Date: Jun 2026

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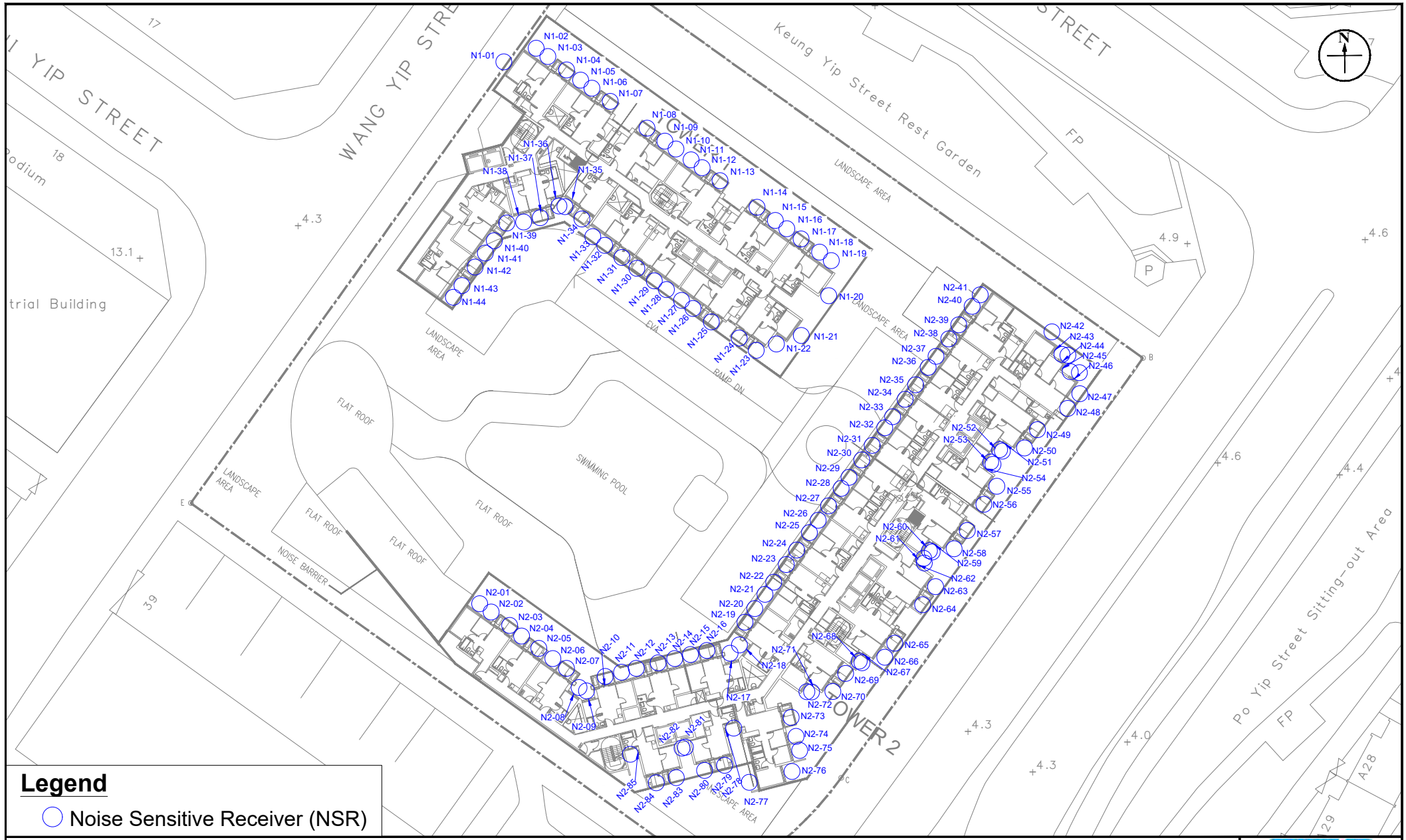

Figure: 3.1a

Title: Locations of Selected Noise Sensitive Receivers for Road Traffic Noise Impact Assessment (Overall Residential Development)

Project: Redevelopment of Lai Sun Yuen Long Centre at Nos. 21-35 Wang Yip Street East, YLTL 362

RAMBOLL

Drawn by:	CM
Checked by:	CC
Rev.:	4.0
Date:	Apr 2026

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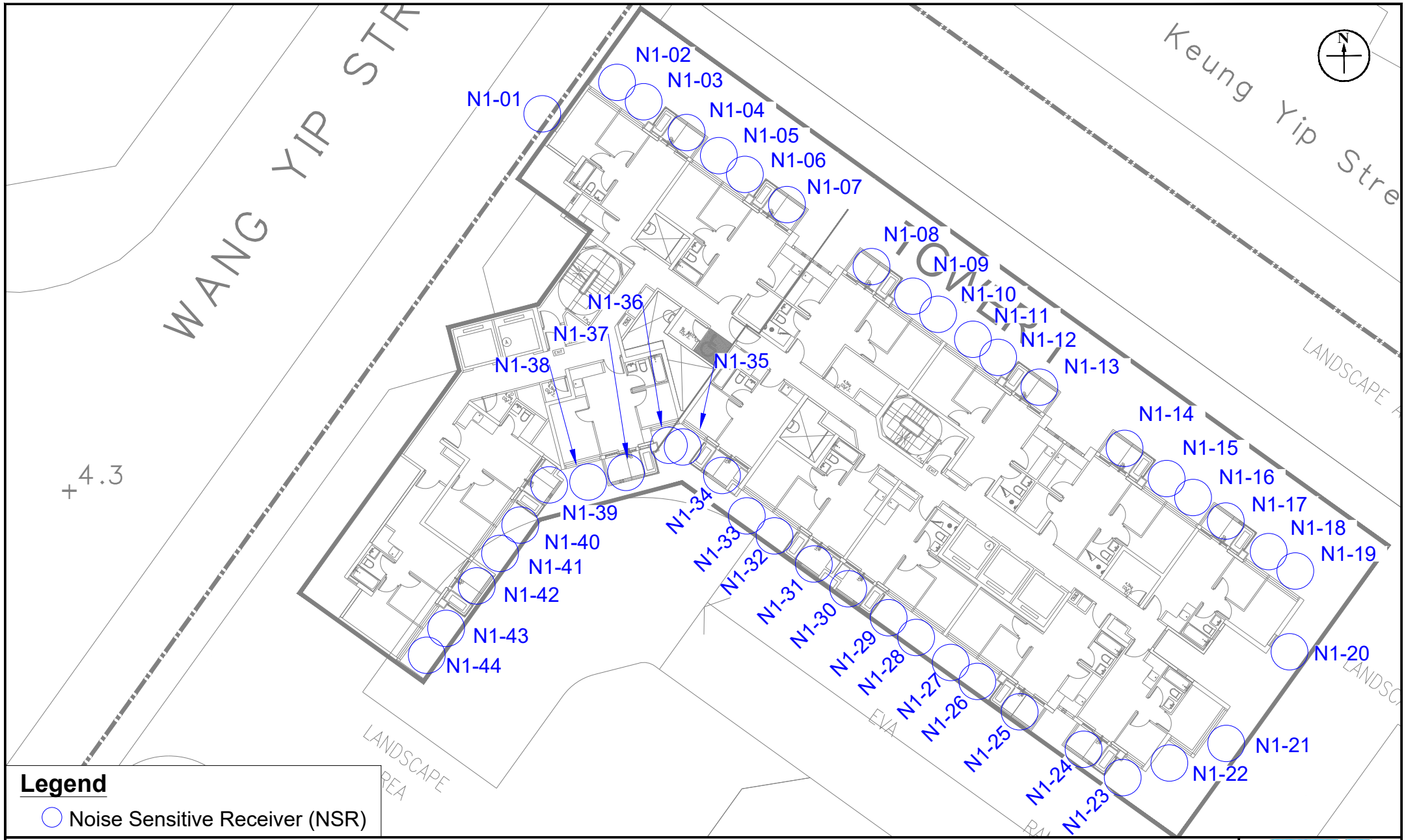

Figure:	3.1b	RAMBOLL
Title:	Locations of Selected Noise Sensitive Receivers for Road Traffic Noise Impact Assessment (Zoom In, 1 of 3)	Drawn by: CM Checked by: CC
Project:	Redevelopment of Lai Sun Yuen Long Centre at Nos. 21-35 Wang Yip Street East, YLTL 362	Rev.: 4.0 Date: Apr 2026

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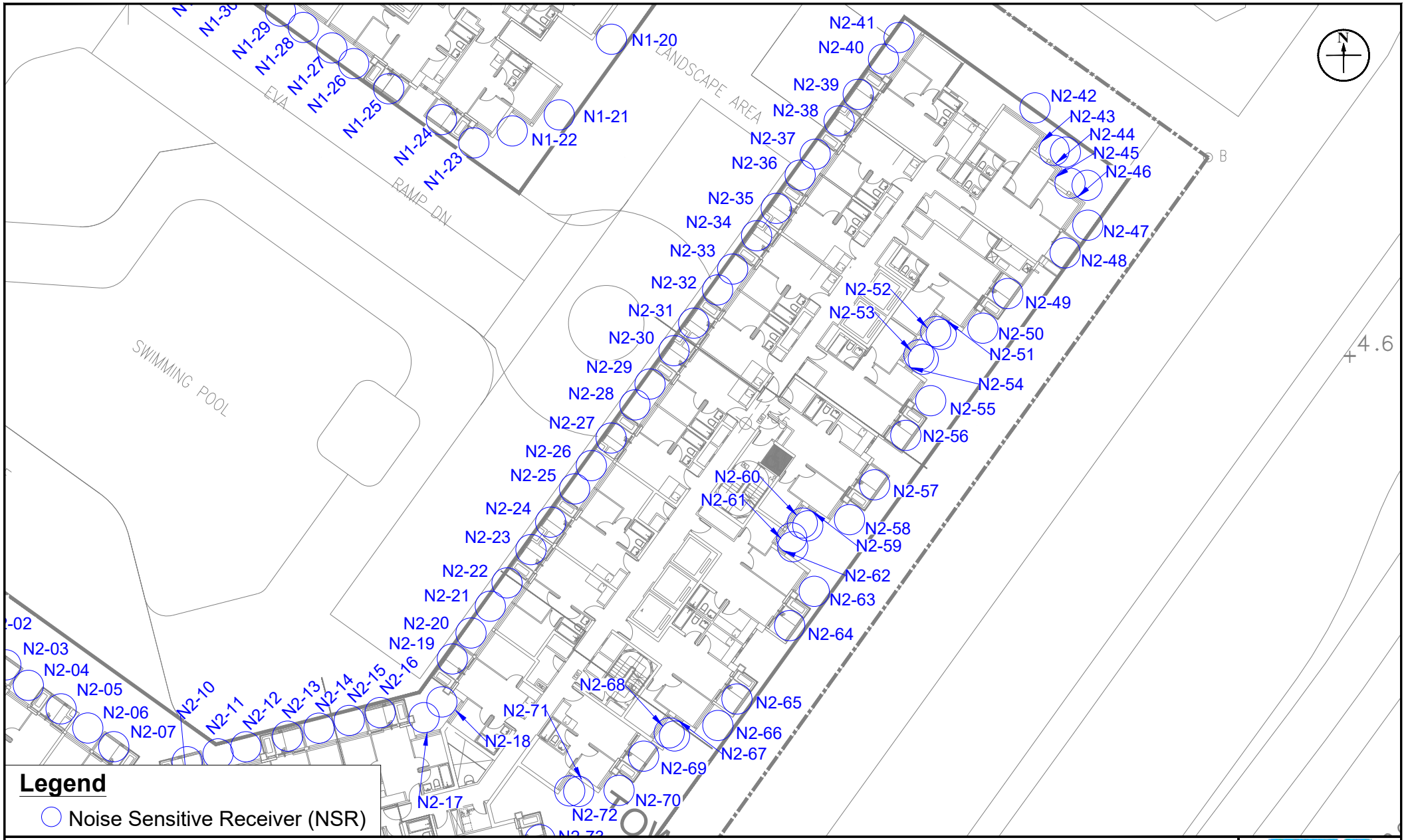

Figure:	3.1c	RAMBOLL
Title:	Locations of Selected Noise Sensitive Receivers for Road Traffic Noise Impact Assessment (Zoom In, 2 of 3)	Drawn by: CM Checked by: CC
Project:	Redevelopment of Lai Sun Yuen Long Centre at Nos. 21-35 Wang Yip Street East, YLTL 362	Rev.: 4.0 Date: Apr 2026

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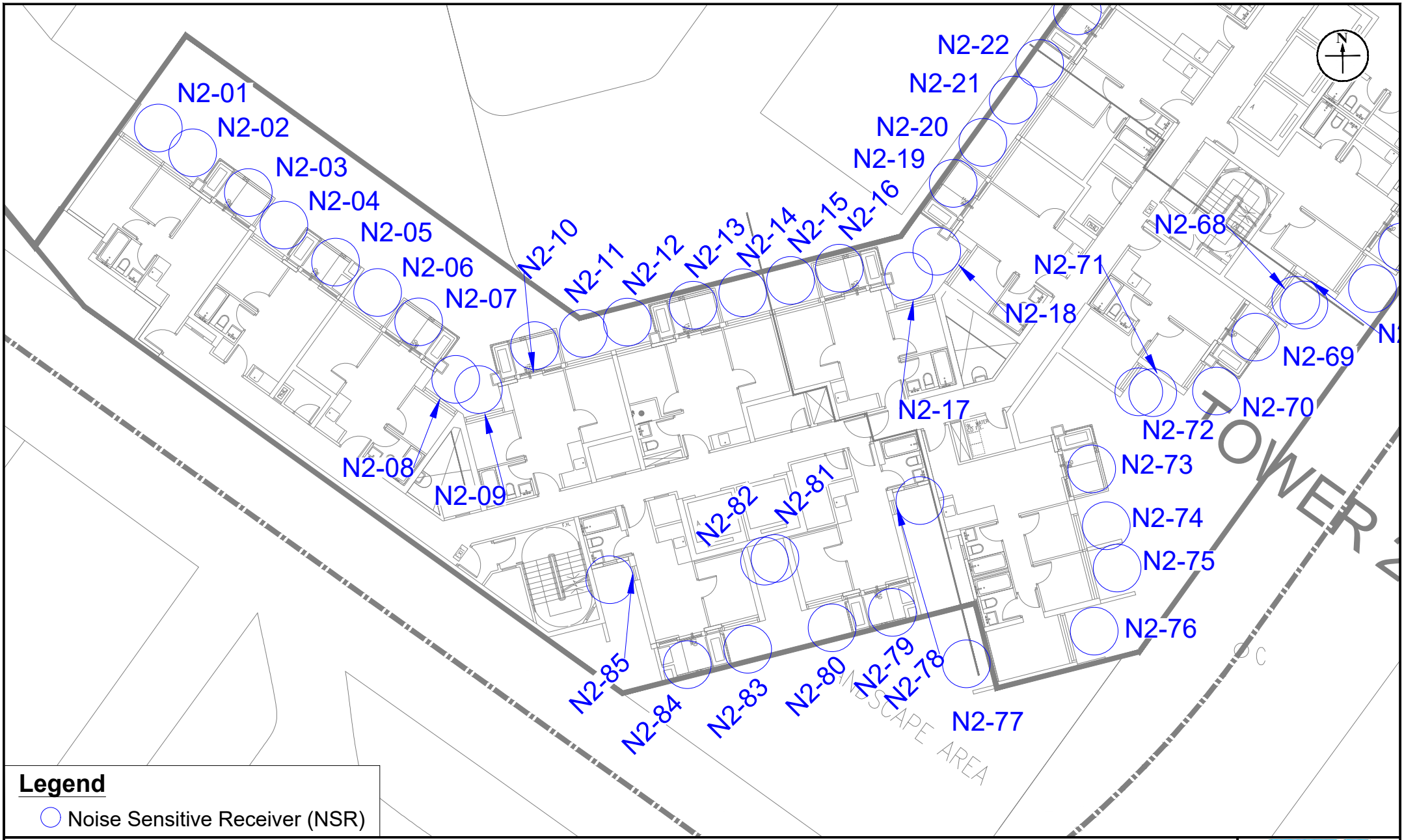

Figure:	3.1d	RAMBOLL
Title:	Locations of Selected Noise Sensitive Receivers for Road Traffic Noise Impact Assessment (Zoom In, 3 of 3)	Drawn by: CM Checked by: CC
Project:	Redevelopment of Lai Sun Yuen Long Centre at Nos. 21-35 Wang Yip Street East, YLTL 362	Rev.: 4.0 Date: Apr 2026

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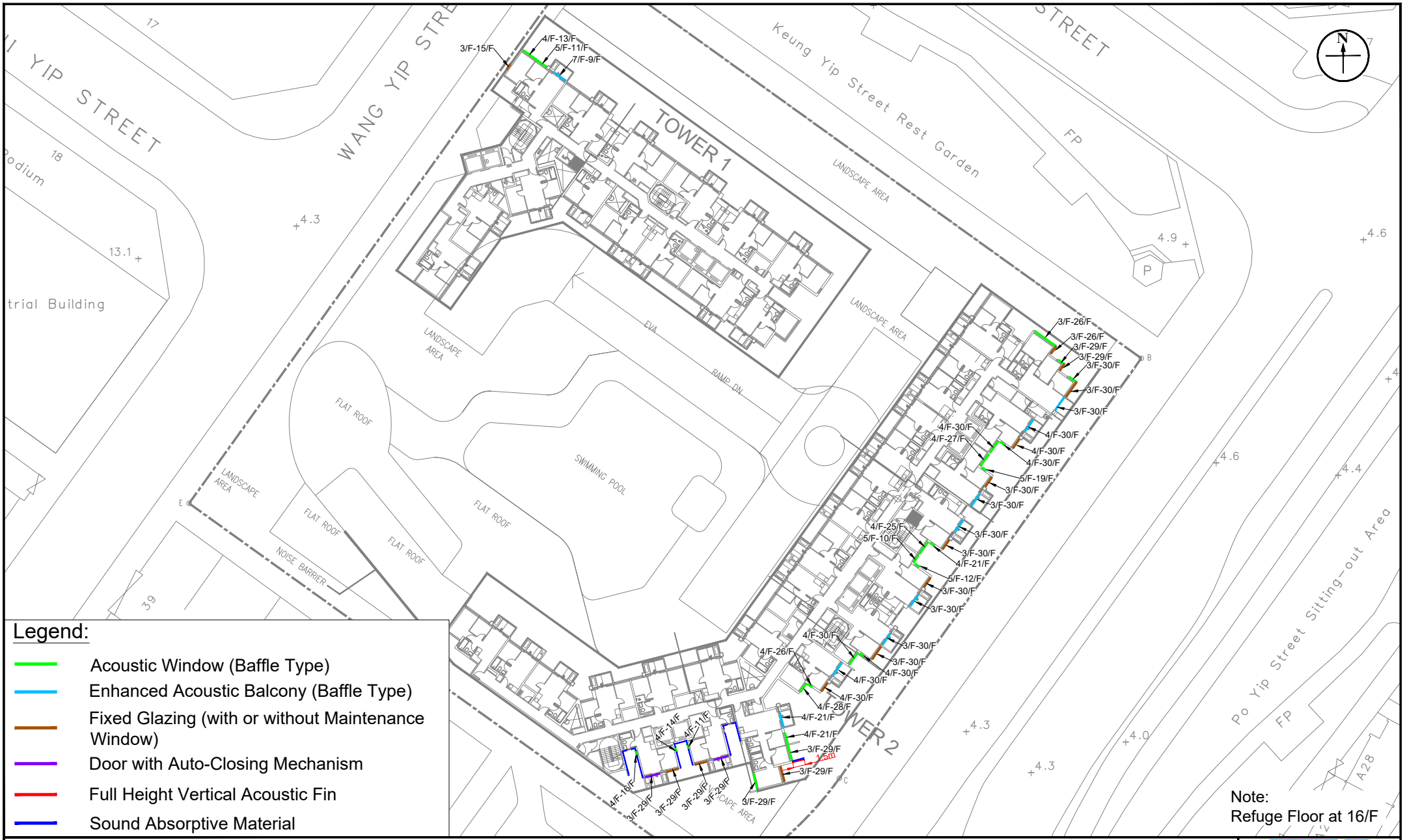

Figure: 3.2a	RAMBOLL
Title: Proposed Road Traffic Noise Mitigation Measures (Overall Residential Development)	Drawn by: CM Checked by: CC
Project: Redevelopment of Lai Sun Yuen Long Centre at Nos. 21-35 Wang Yip Street East, YLTL 362	Rev.: 4.1 Date: Jul 2026

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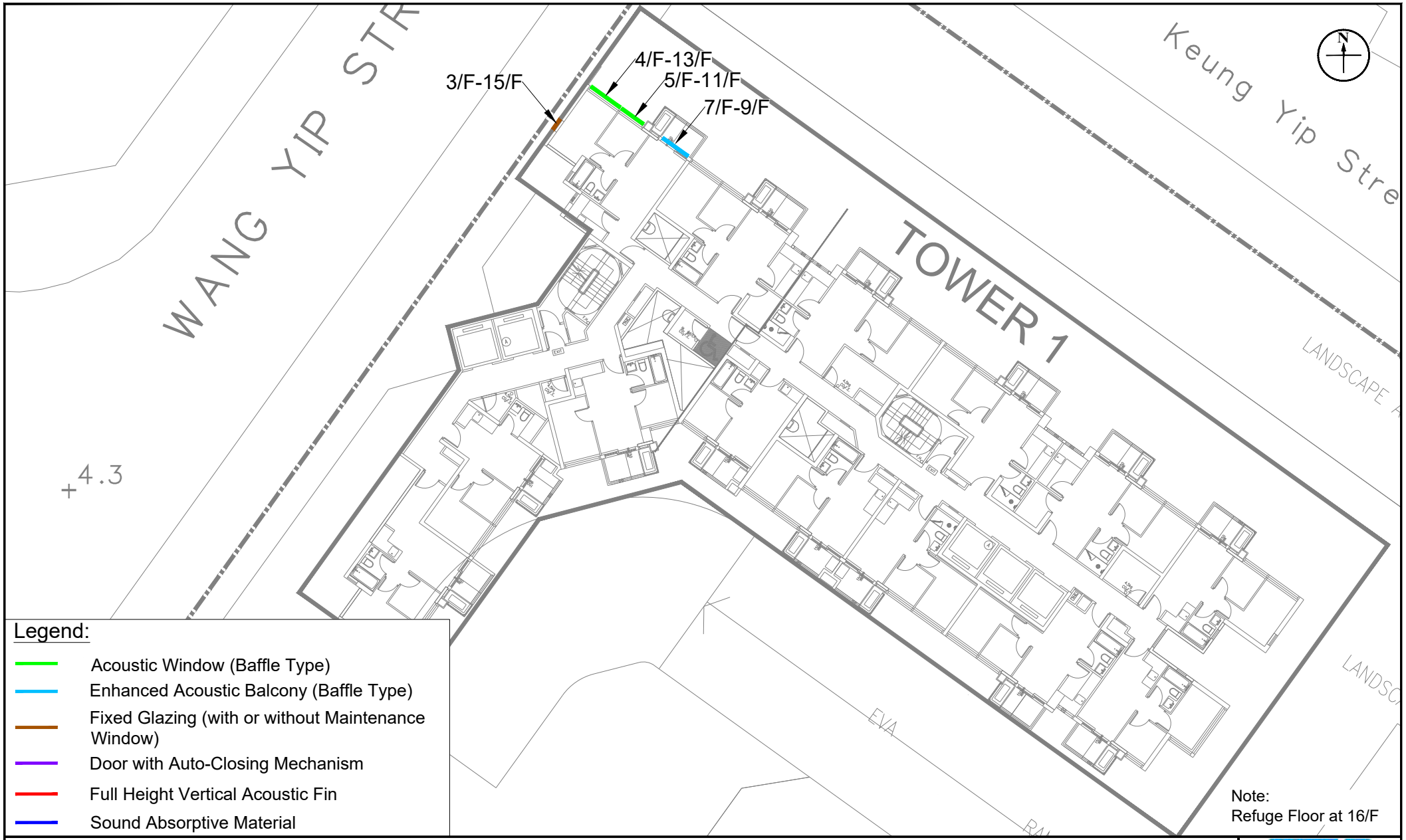

Figure: 3.2b		RAMBOLL
Title: Proposed Road Traffic Noise Mitigation Measures (Zoom In, 1 of 3)		Drawn by: CM
		Checked by: CC
Project: Redevelopment of Lai Sun Yuen Long Centre at Nos. 21-35 Wang Yip Street East, YLTL 362		Rev.: 4.1
		Date: Jul 2026

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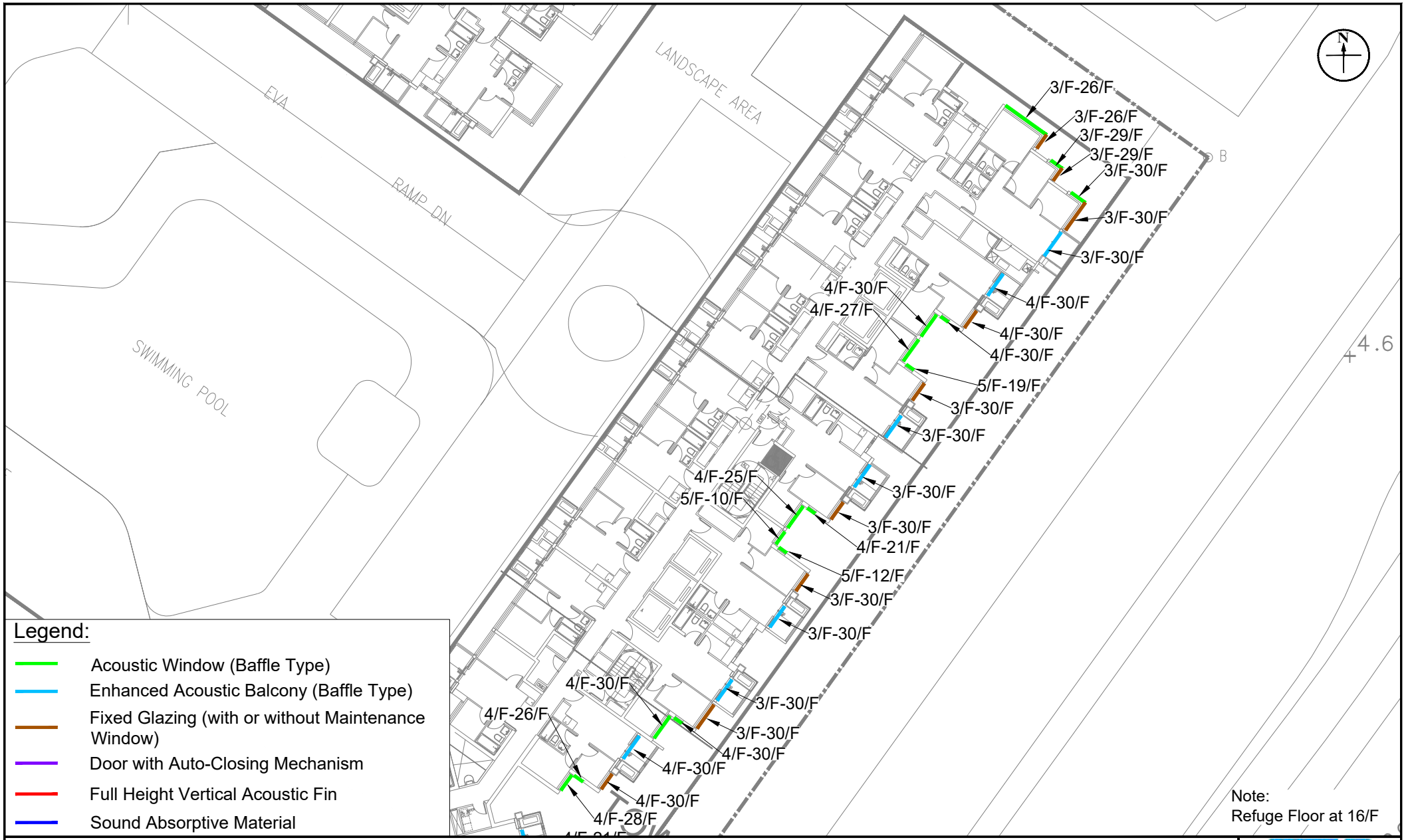

Figure:	3.2c	RAMBOLL
Title:	Proposed Road Traffic Noise Mitigation Measures (Zoom In, 2 of 3)	Drawn by: CM Checked by: CC
Project:	Redevelopment of Lai Sun Yuen Long Centre at Nos. 21-35 Wang Yip Street East, YLTL 362	Rev.: 4.1 Date: Jul 2026

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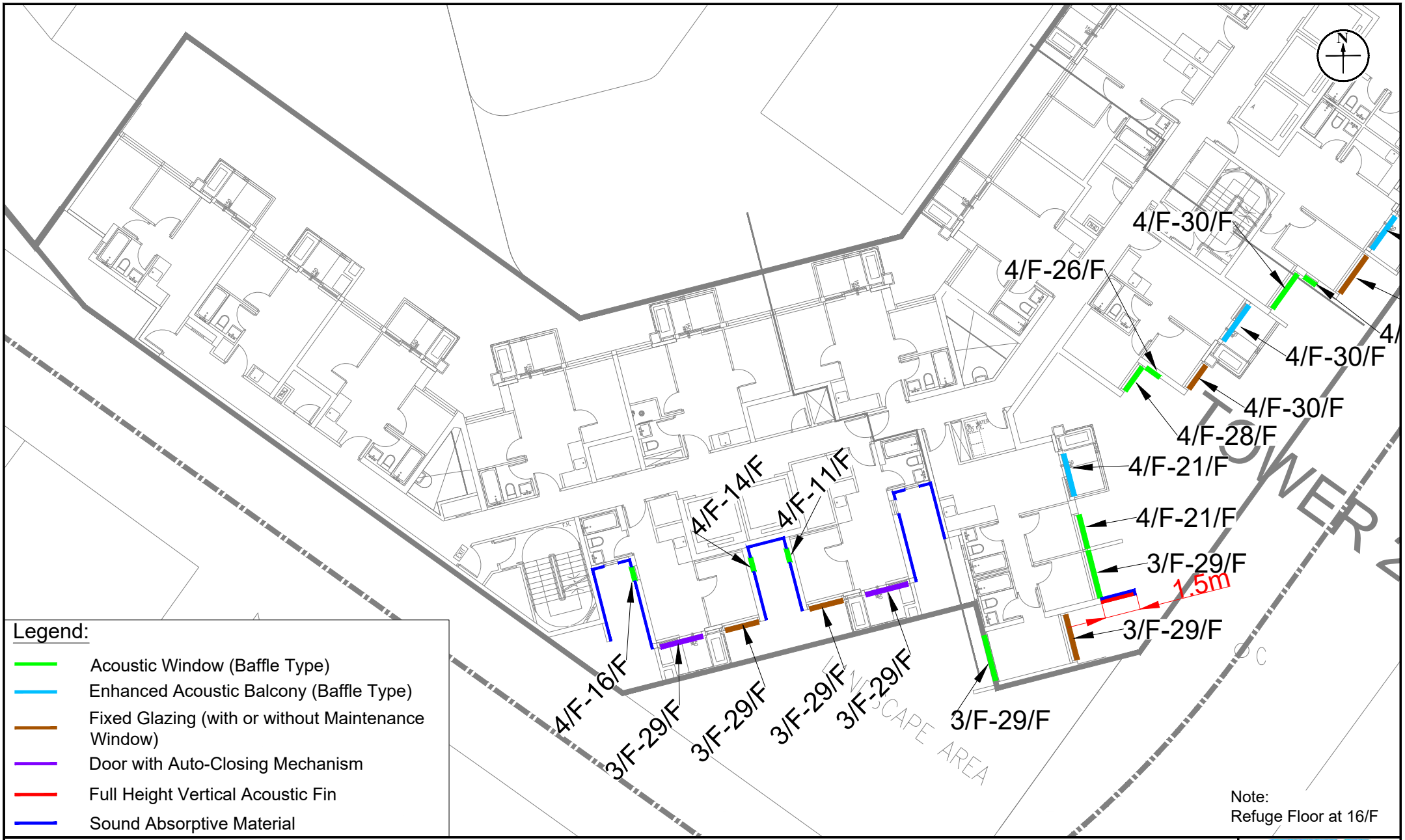

Figure:	3.2d	RAMBOLL
Title:	Proposed Road Traffic Noise Mitigation Measures (Zoom In, 3 of 3)	Drawn by: CM Checked by: CC
Project:	Redevelopment of Lai Sun Yuen Long Centre at Nos. 21-35 Wang Yip Street East, YLTL 362	Rev.: 4.1 Date: Jul 2026

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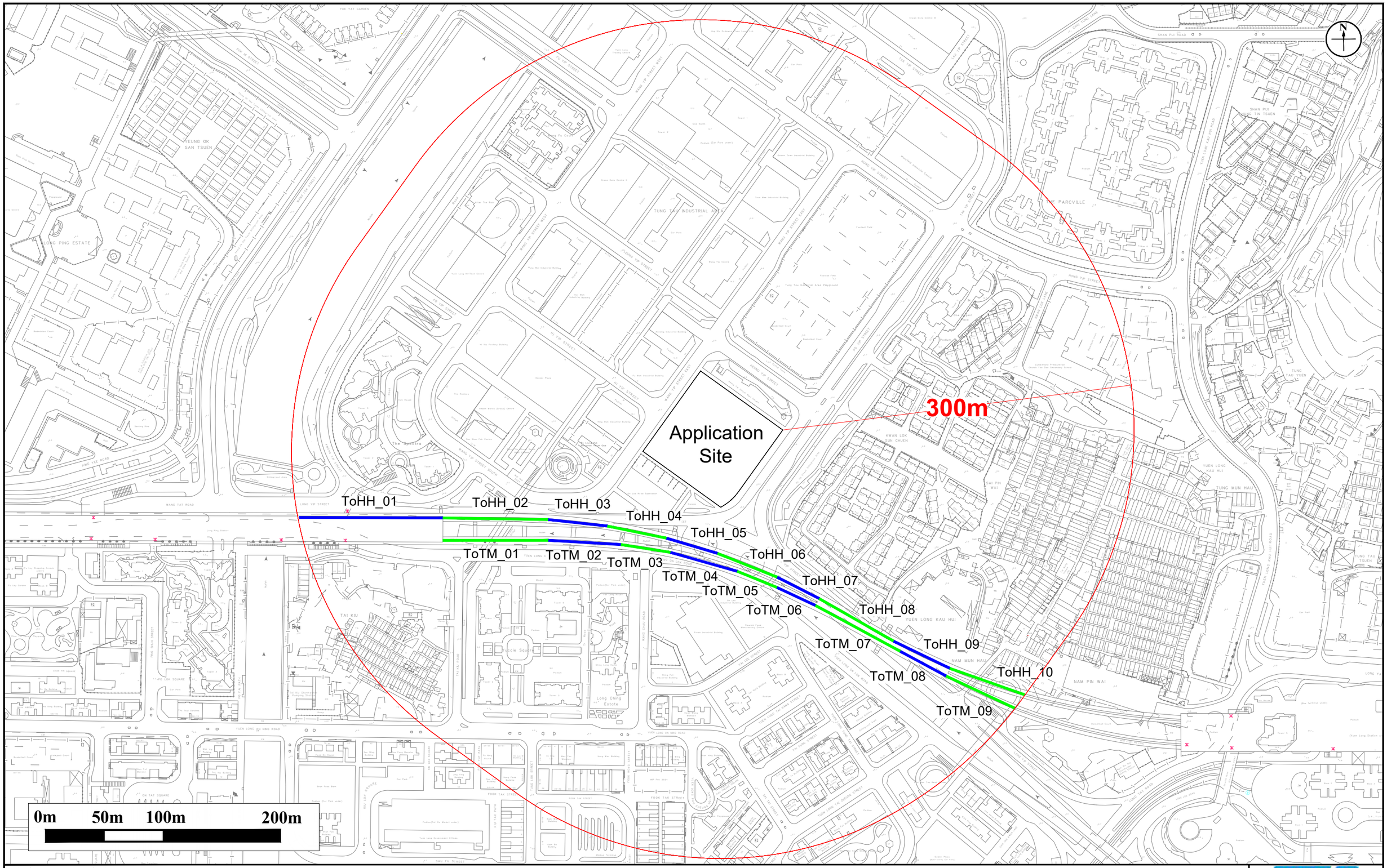

Figure: 4.1

Title: Location of the Rail Segments within 300m Assessment Area

Project: Redevelopment of Lai Sun Yuen Long Centre at Nos. 21-35 Wang Yip Street East, YLTL 362

RAMBOLL

Drawn by:	MW
Checked by:	CC
Rev.:	4.0
Date:	Apr 2026

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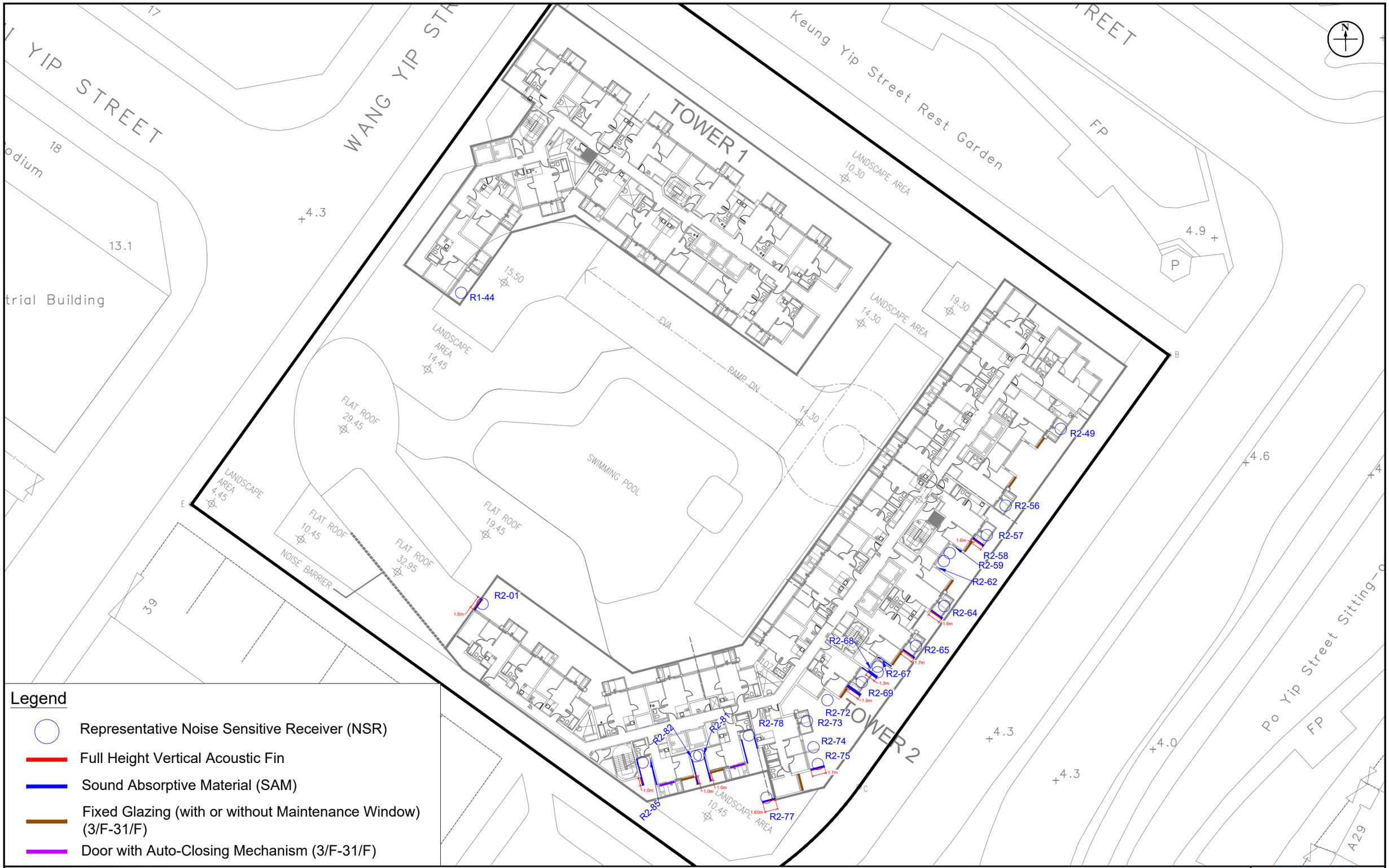

Figure: 4.2

Title: Location of Selected Noise Sensitive Receivers and Noise Mitigation Measures for Railway Noise Impact Assessment (Overall)

Project: Redevelopment of Lai Sun Yuen Long Centre at Nos. 21-35 Wang Yip Street East, YLTL 362

RAMBOLL

Drawn by:	MW
Checked by:	CC
Rev.:	4.0
Date:	Apr 2026

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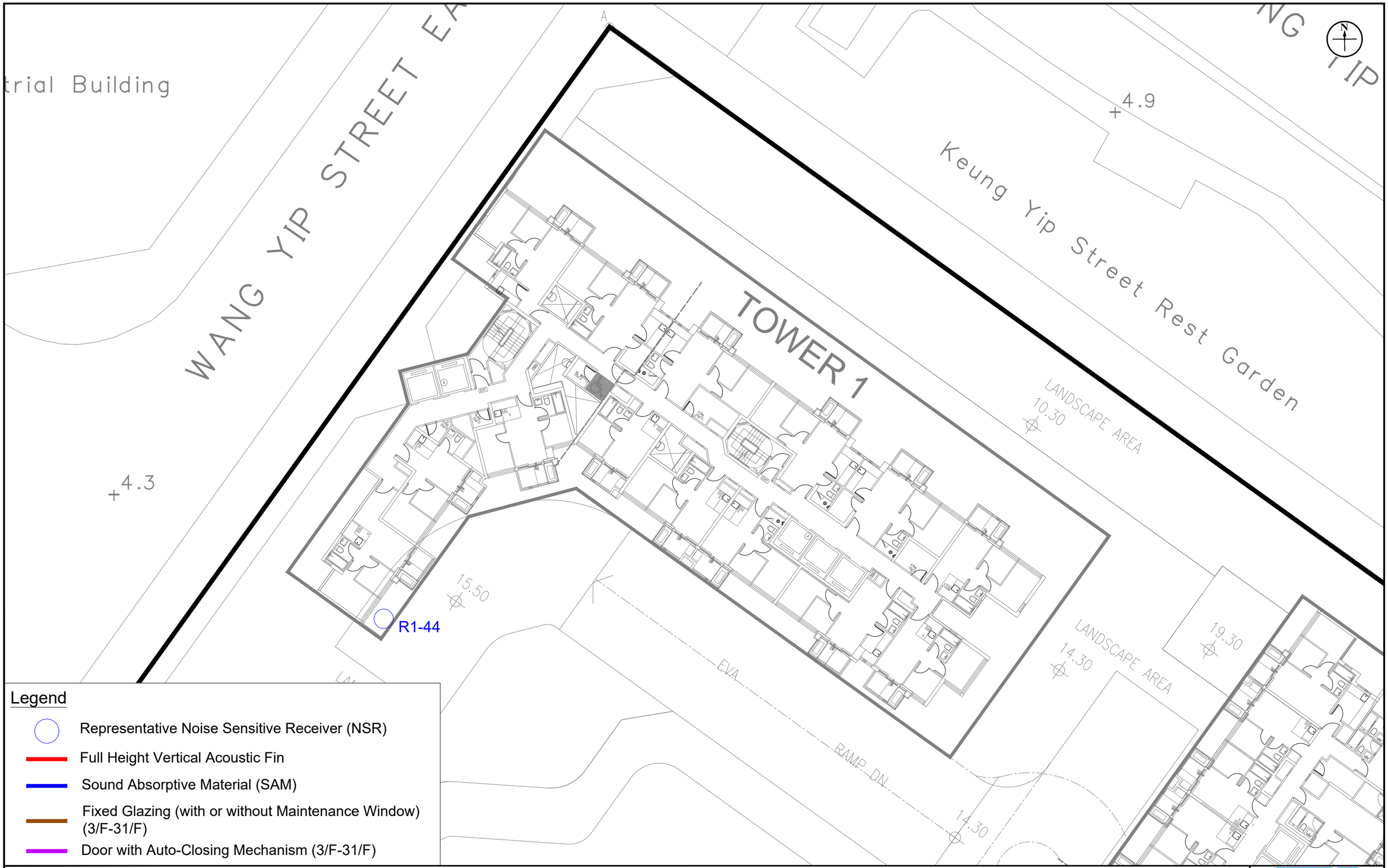

Figure: 4.2a

Title: Location of Selected Noise Sensitive Receivers and Noise Mitigation Measures for Railway Noise Impact Assessment (Zoom In, 1 of 2)

Project: Redevelopment of Lai Sun Yuen Long Centre at Nos. 21-35 Wang Yip Street East, YLTL 362

RAMBOLL

Drawn by:	MW
Checked by:	CC
Rev.:	4.0
Date:	Apr 2026

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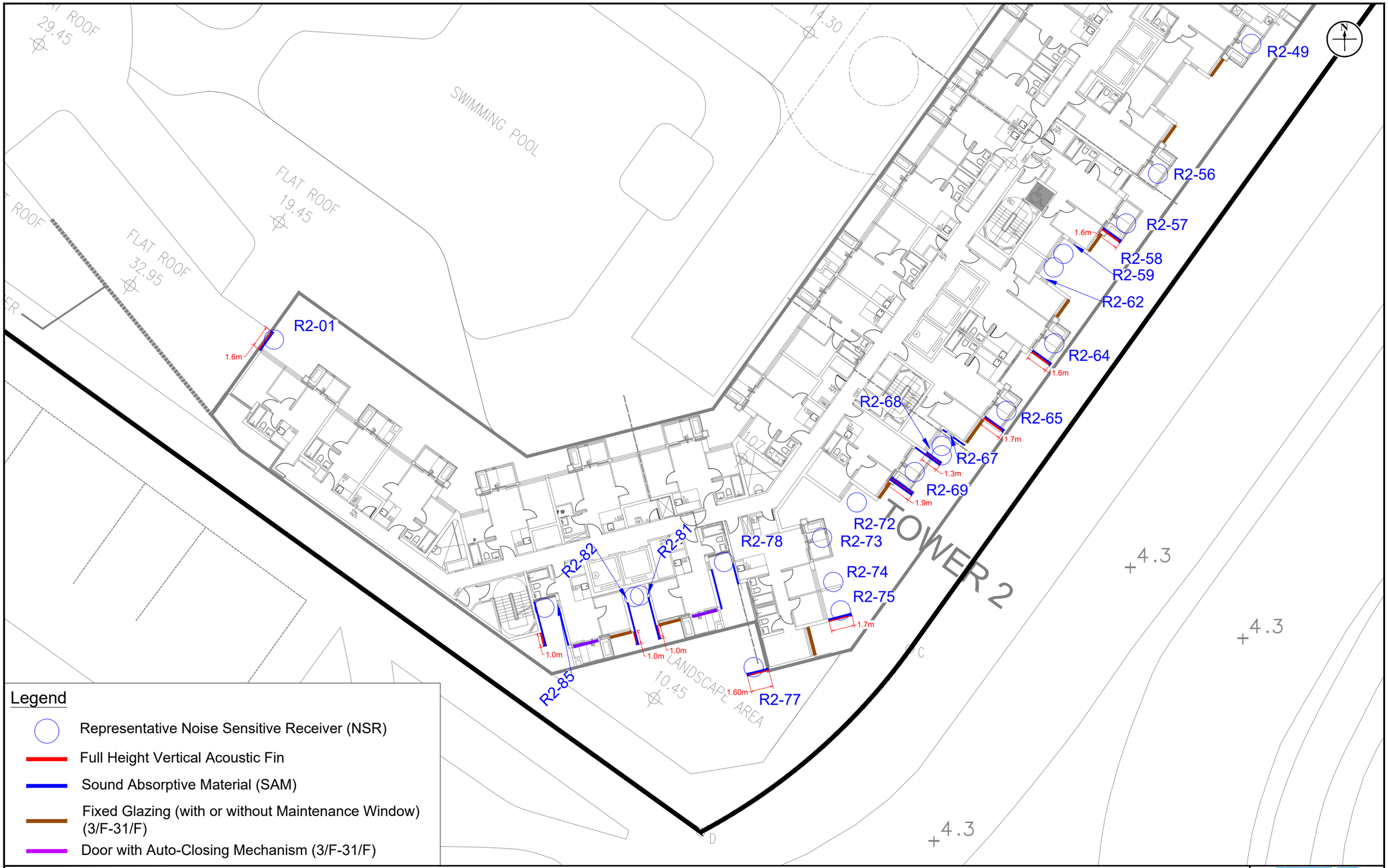

Figure: 4.2b		RAMBOLL
Title: Location of Selected Noise Sensitive Receivers and Noise Mitigation Measures for Railway Noise Impact Assessment (Zoom In, 2 of 2)		Drawn by: MW
		Checked by: CC
Project: Redevelopment of Lai Sun Yuen Long Centre at Nos. 21-35 Wang Yip Street East, YLTL 362		Rev.: 4.0
		Date: Apr 2026

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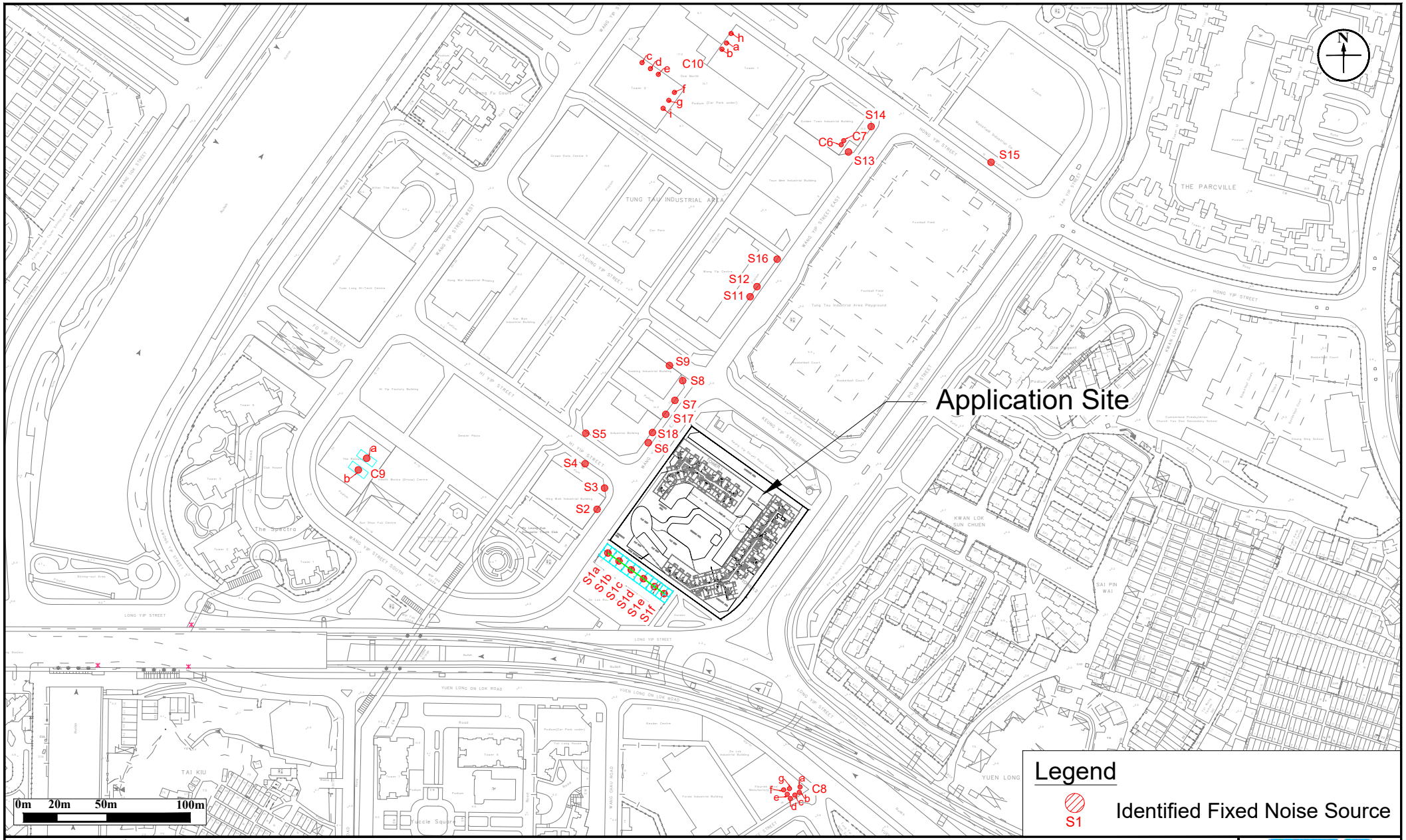

Figure: 5.1	RAMBOLL
Title: Location of Identified Fixed Noise Sources	Drawn by: MW
	Checked by: CC
Project: Redevelopment of Lai Sun Yuen Long Centre at Nos. 21-35 Wang Yip Street East, YLTL 362	Rev.: 4.0
	Date: Apr 2026

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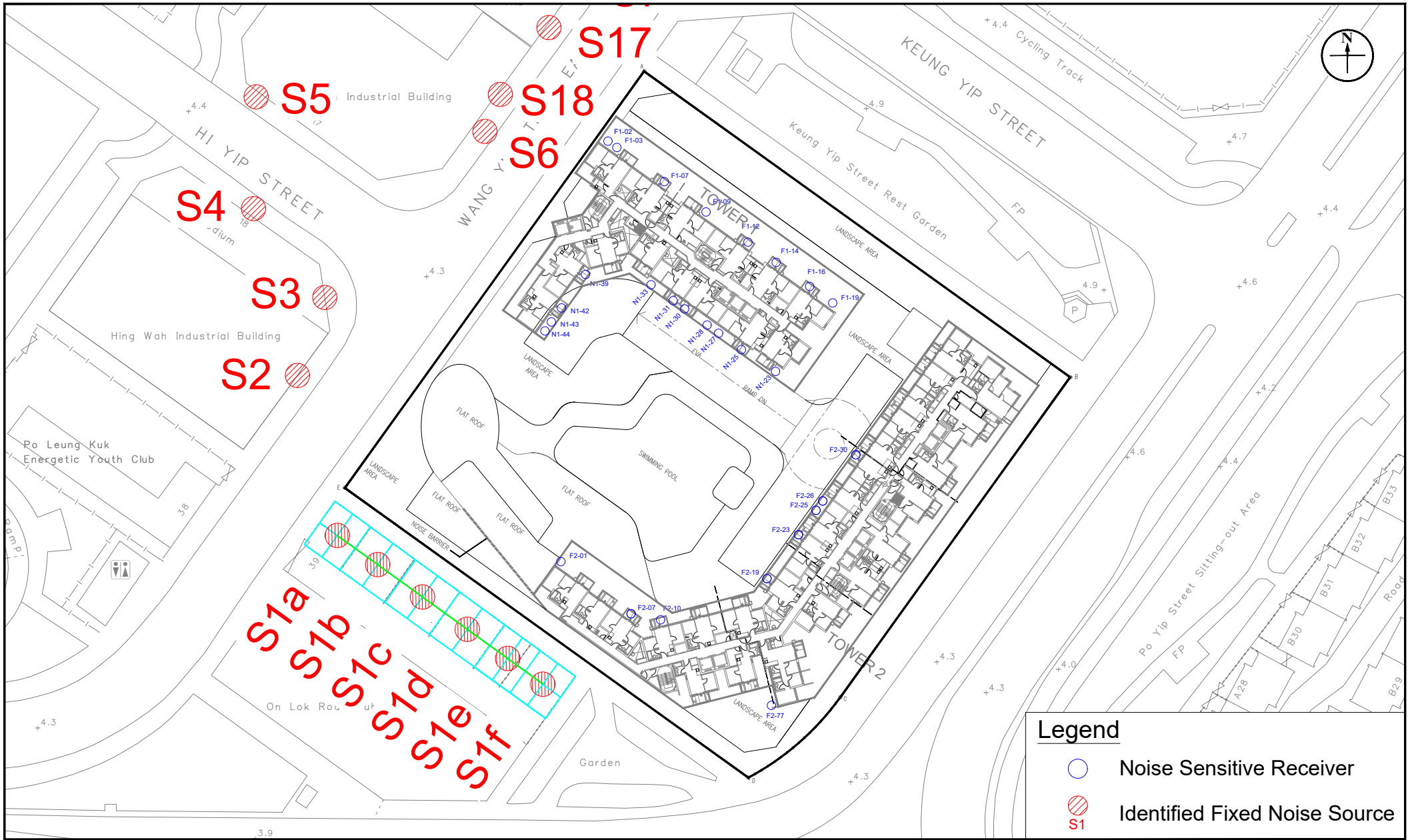

Figure: 5.2		RAMBOLL
Title: Location of Selected Noise Sensitive Receivers for Fixed Sources Noise Impact Assessment		Drawn by: MW
		Checked by: CC
Project: Redevelopment of Lai Sun Yuen Long Centre at Nos. 21-35 Wang Yip Street East, YLTL 362		Rev.: 4.0
		Date: Apr 2026

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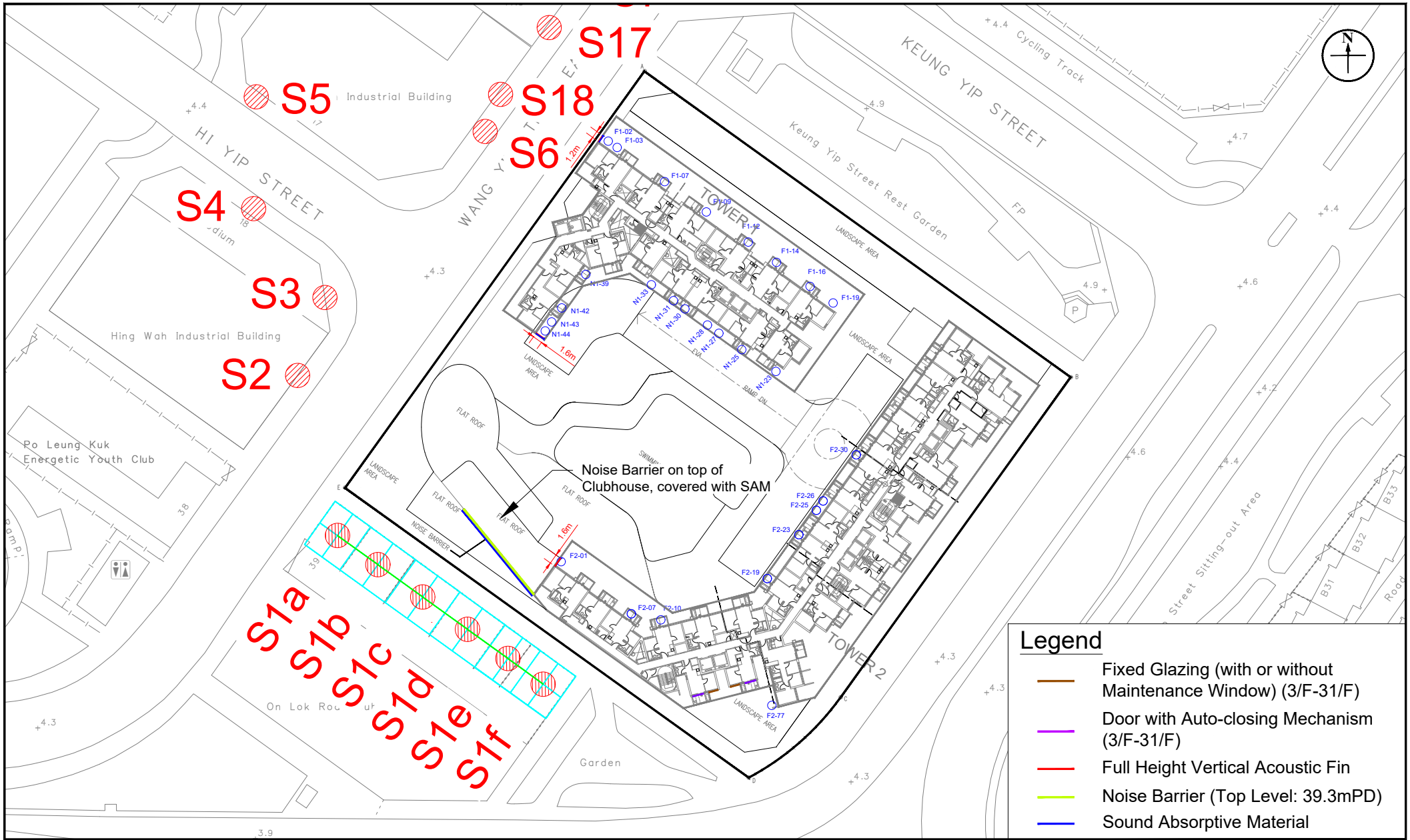

Figure: 5.3		RAMBOLL
Title: Proposed Noise Mitigation Measures for Fixed Sources Noise Impact Assessment		Drawn by: MW
		Checked by: CC
Project: Redevelopment of Lai Sun Yuen Long Centre at Nos. 21-35 Wang Yip Street East, YLTL 362		Rev.: 4.0
		Date: Apr 2026

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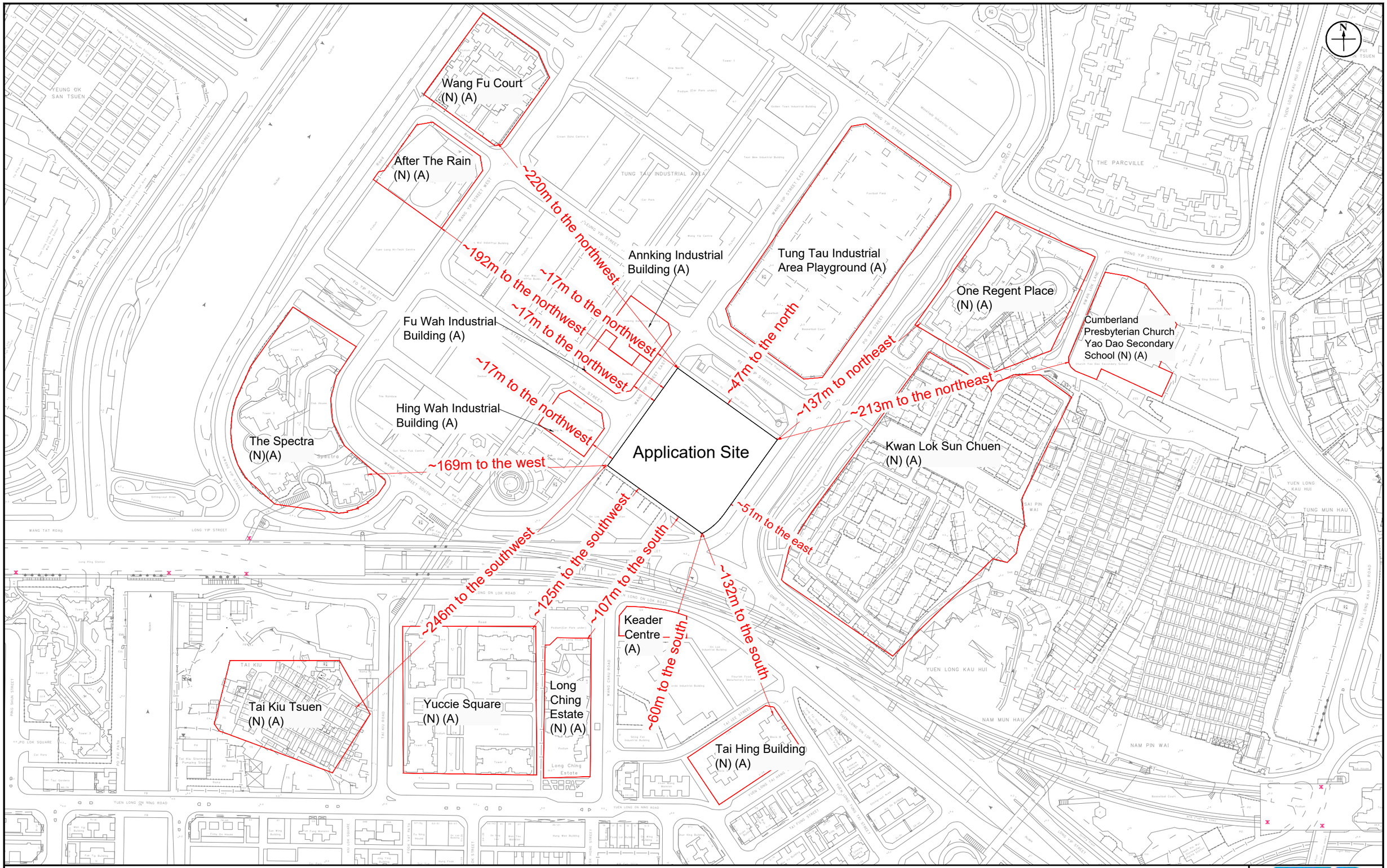

Figure: 6.1

Title: Location of Surrounding Noise and Air Sensitive Uses

Project: Redevelopment of Lai Sun Yuen Long Centre at Nos. 21-35 Wang Yip Street East, YLTL 362

RAMBOLL

Drawn by:	MW
Checked by:	CC
Rev.:	4.0
Date:	Apr 2026

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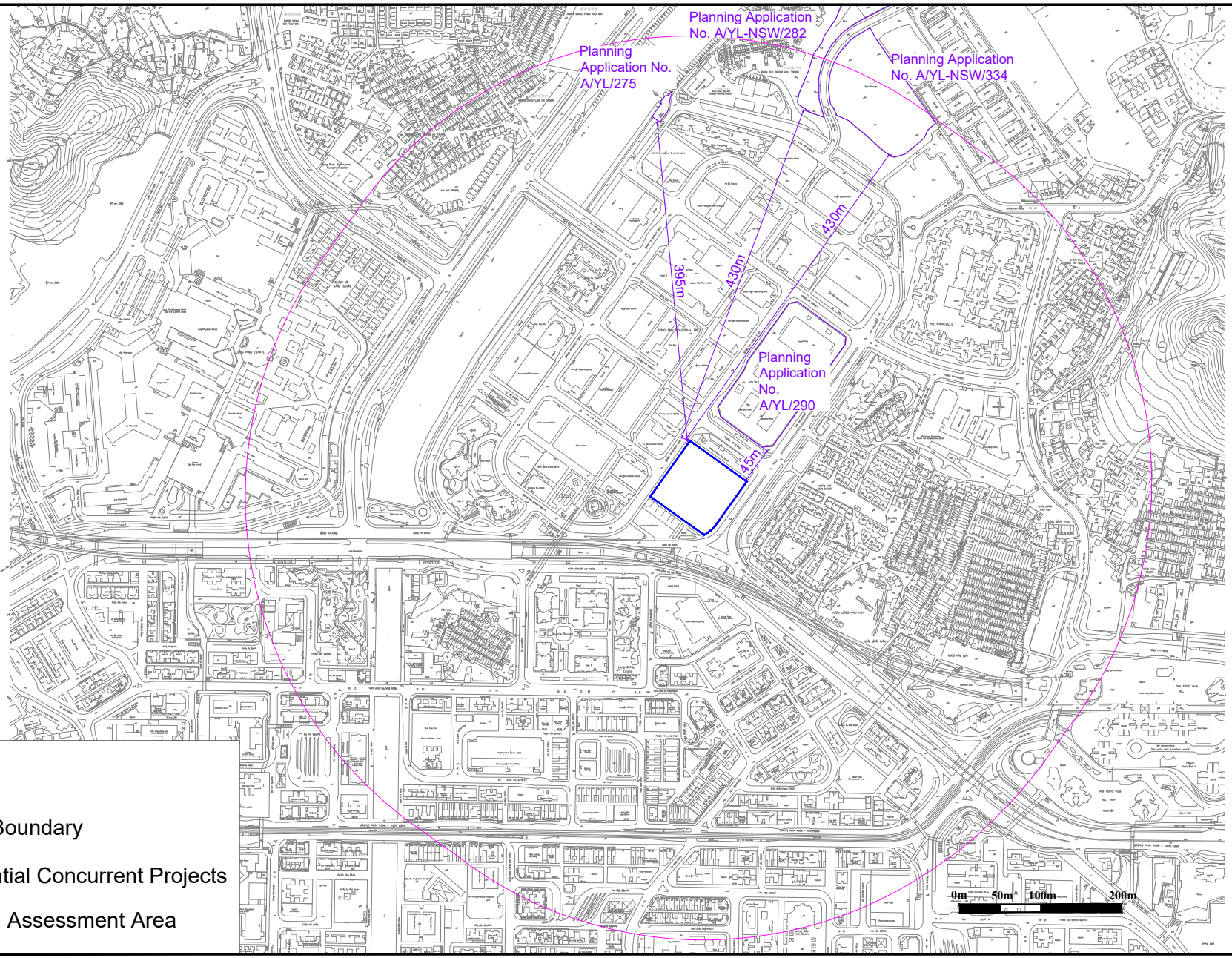

Legend:

- Site Boundary
- Potential Concurrent Projects
- 500m Assessment Area

Figure: 6.2	RAMBOLL
Title: Locations of Potential Concurrent Projects	Drawn by: AW
	Checked by: CC
Project: Redevelopment of Lai Sun Yuen Long Centre at Nos. 21-35 Wang Yip Street East, YLTL 362	Rev.: 4.1
	Date: Jun 2026

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Note:
Refuge Floor at 16/F

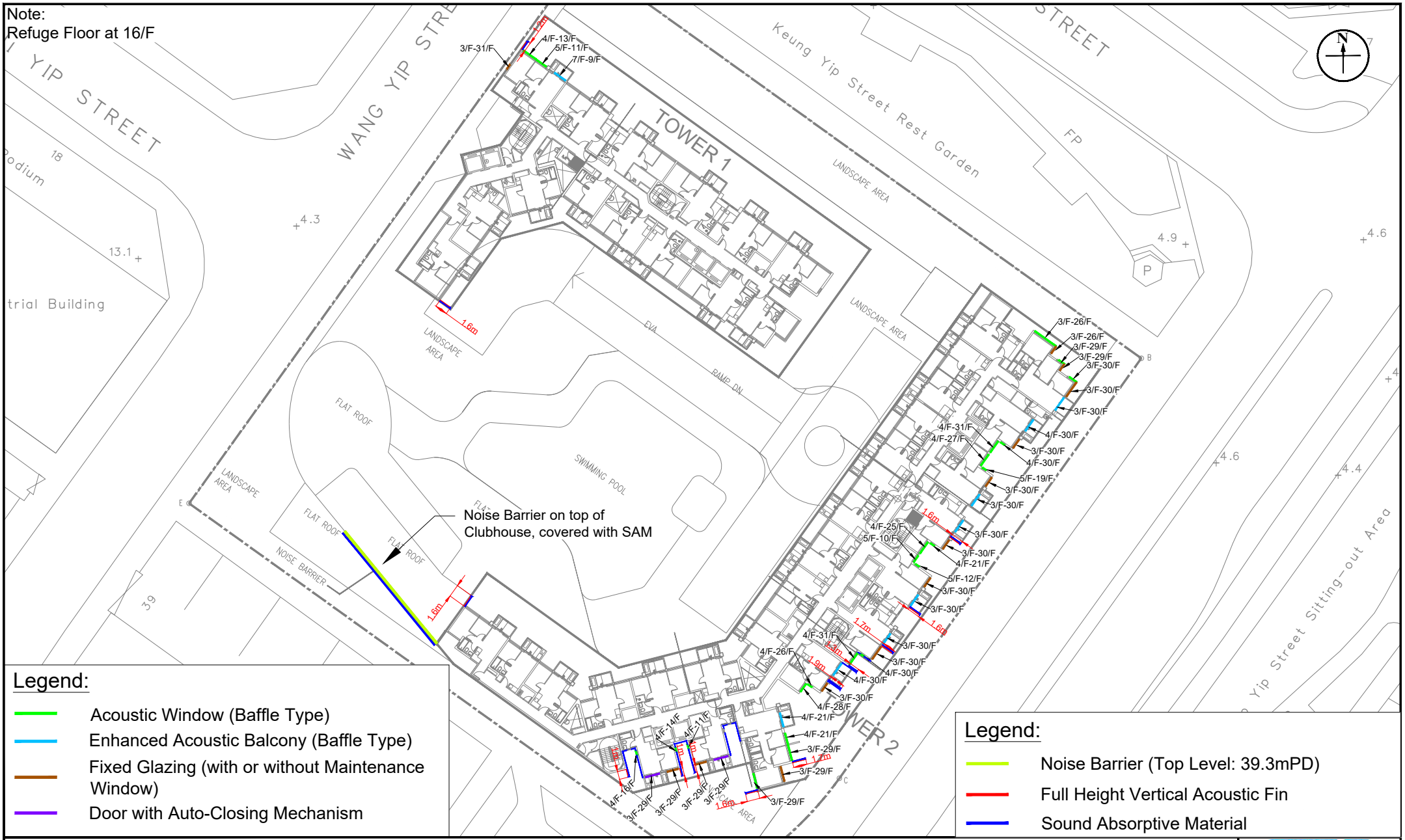


Figure:	7.1a	RAMBOLL
Title:	Proposed Overall Noise Mitigation Measures (Overall Residential Development)	Drawn by: CM Checked by: CC
Project:	Redevelopment of Lai Sun Yuen Long Centre at Nos. 21-35 Wang Yip Street East, YLTL 362	Rev.: 4.1 Date: Jul 2026

\\aphkfps3\Drive Q\Projects\GYULSYLCEI00\05 Assessments\02 Noise\02 Traffic\20260708 EAv4.1\Fig 7.1 Overall NMM.dwg

Note:
Refuge Floor at 16/F

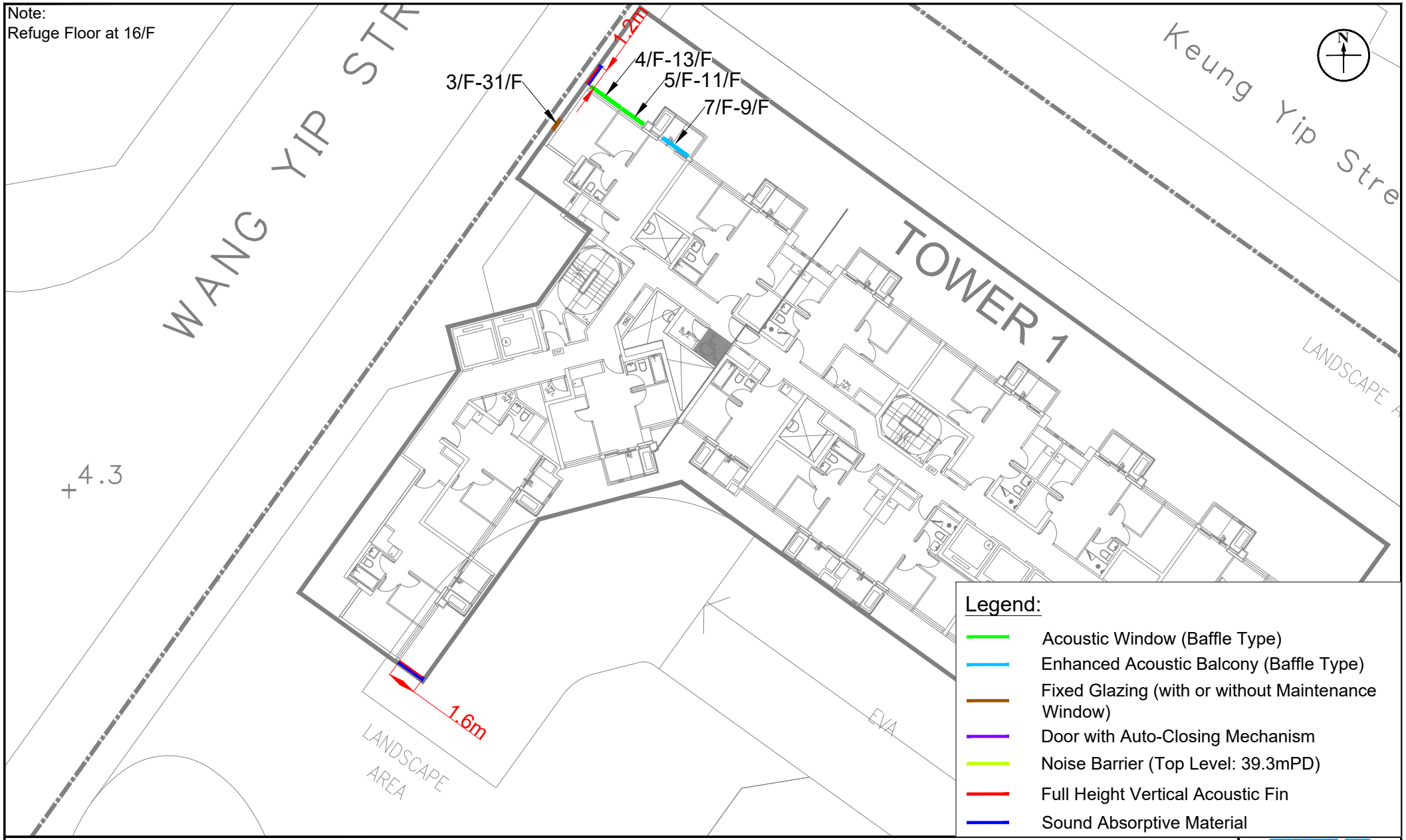


Figure:	7.1b	RAMBOLL
Title:	Proposed Overall Noise Mitigation Measures (Zoom In, 1 of 3)	Drawn by: CM Checked by: CC
Project:	Redevelopment of Lai Sun Yuen Long Centre at Nos. 21-35 Wang Yip Street East, YLTL 362	Rev.: 4.1 Date: Jul 2026

\\aphkfps3\Drive Q\Projects\GYULSYLCEI00\05 Assessments\02 Noise\02 Traffic\20260708 EAv4.1\Fig 7.1 Overall NMM.dwg

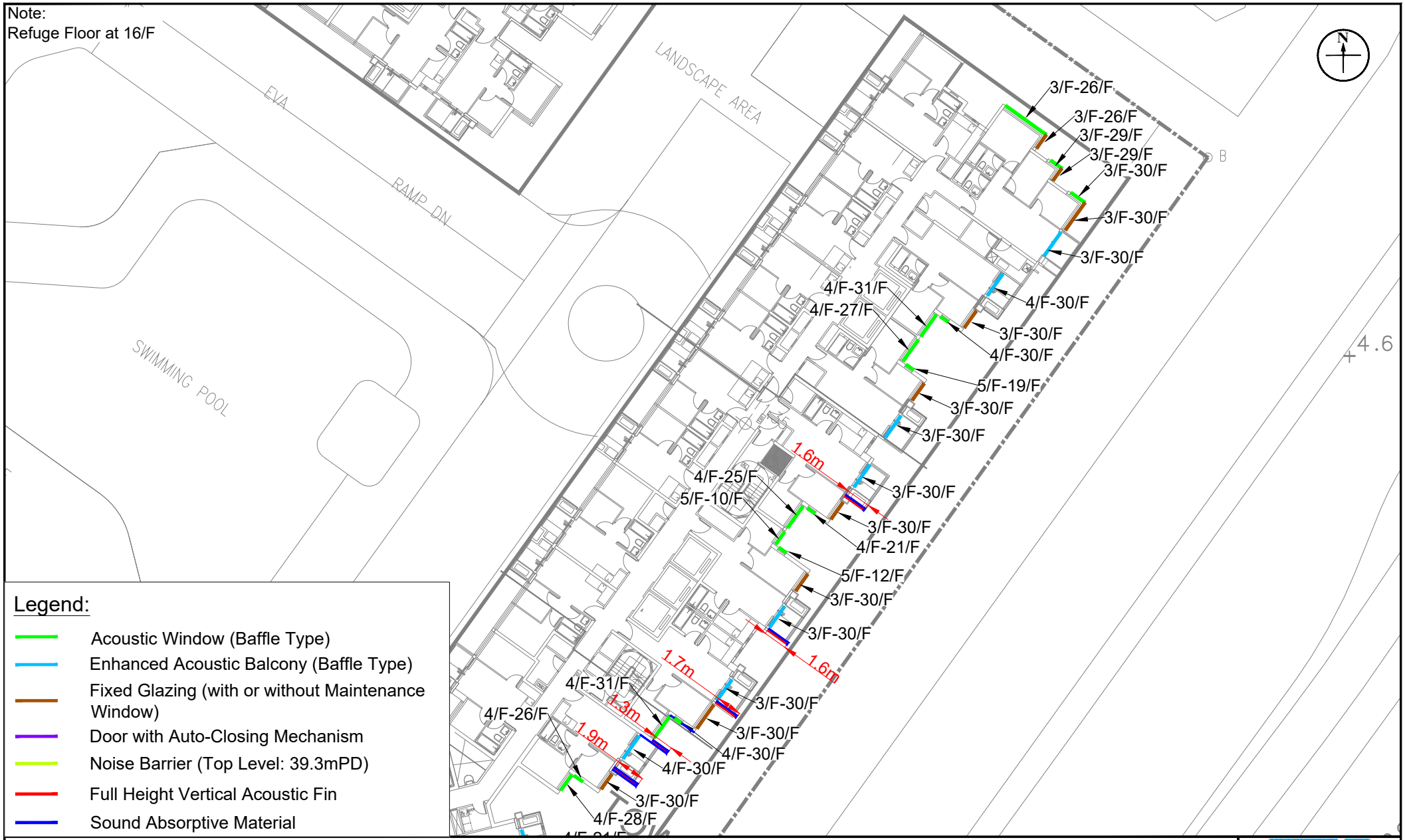


Figure:	7.1c	RAMBOLL
Title:	Proposed Overall Noise Mitigation Measures (Zoom In, 2 of 3)	Drawn by: CM Checked by: CC
Project:	Redevelopment of Lai Sun Yuen Long Centre at Nos. 21-35 Wang Yip Street East, YLTL 362	Rev.: 4.1 Date: Jul 2026

\\aphkfps3\Drive Q\Projects\GYULSYLCEI00\05 Assessments\02 Noise\02 Traffic\20260708 EAv4.1\Fig 7.1 Overall NMM.dwg

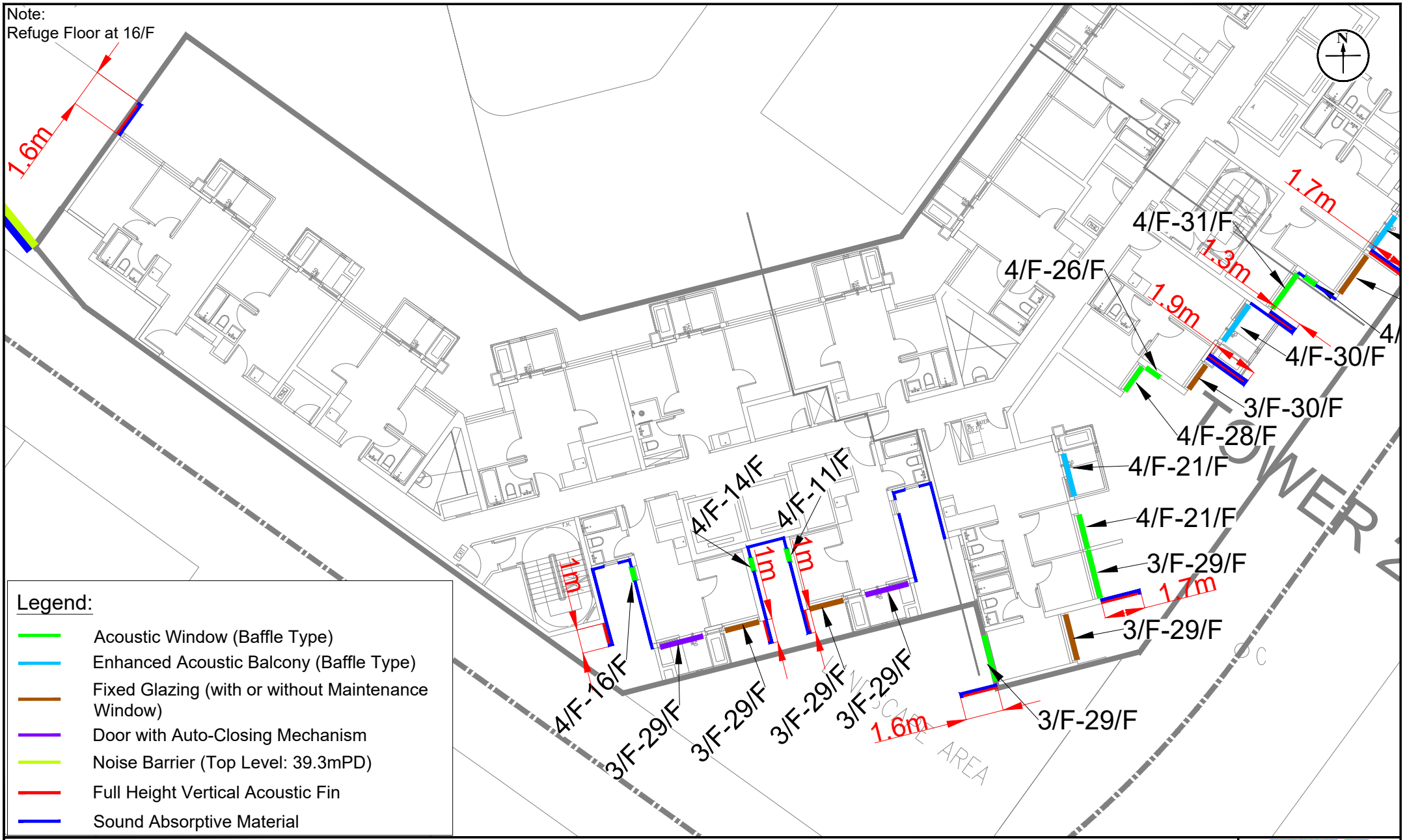
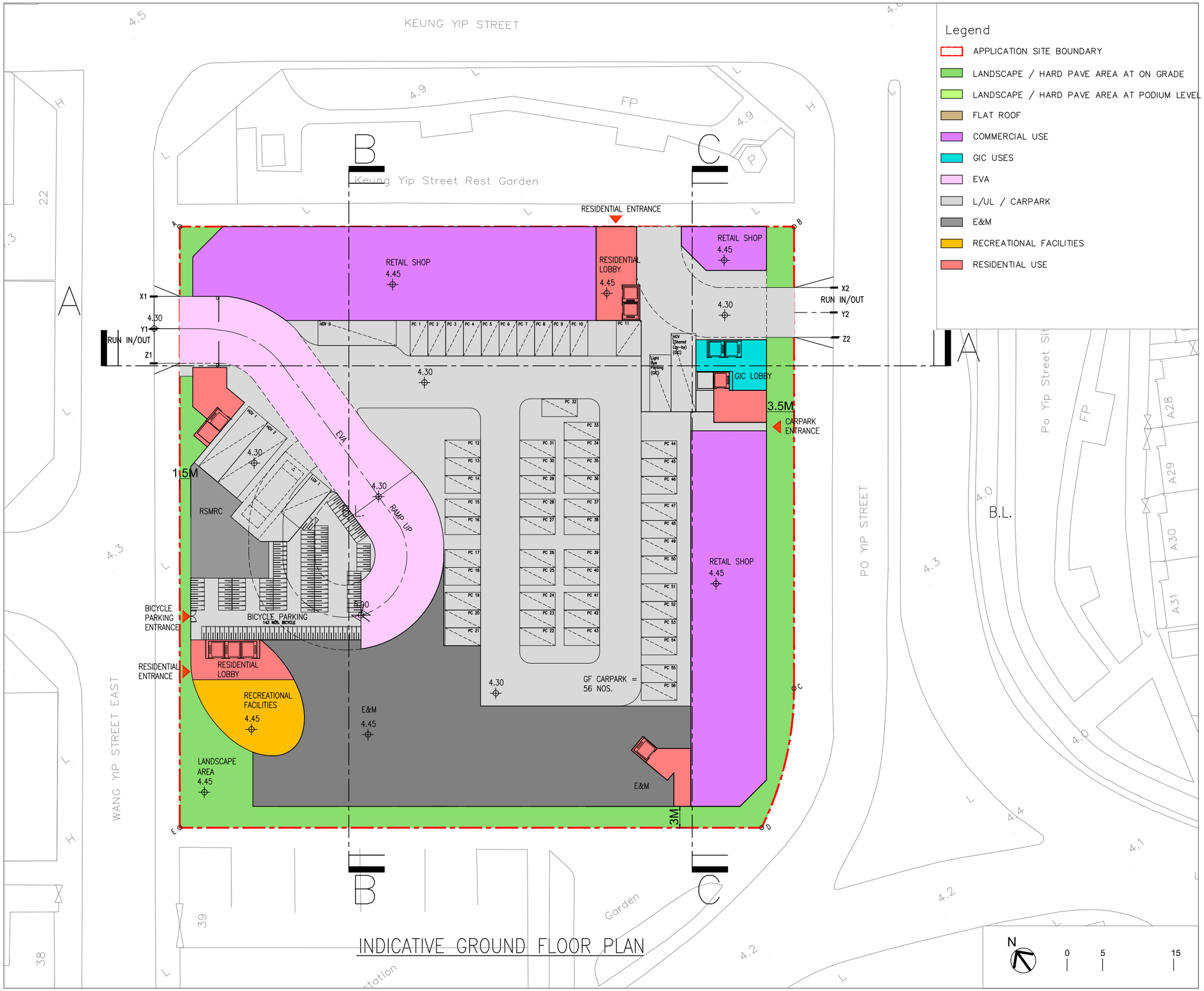


Figure: 7.1d	RAMBOLL
Title: Proposed Overall Noise Mitigation Measures (Zoom In, 3 of 3)	Drawn by: CM Checked by: CC
Project: Redevelopment of Lai Sun Yuen Long Centre at Nos. 21-35 Wang Yip Street East, YLTL 362	Rev.: 4.1 Date: Jul 2026

\\aphkfps3\Drive Q\Projects\GYULSYLCEI00\05 Assessments\02 Noise\02 Traffic\20260708 EAv4.1\Fig 7.1 Overall NMM.dwg

Appendix 1-1 Master Layout Plan, Floor Plans and Sections of the Proposed Development



Legend

- APPLICATION SITE BOUNDARY
- LANDSCAPE / HARD PAVE AREA AT ON GRADE
- LANDSCAPE / HARD PAVE AREA AT PODIUM LEVEL
- FLAT ROOF
- COMMERCIAL USE
- GIC USES
- EVA
- L/UL / CARPARK
- E&M
- RECREATIONAL FACILITIES
- RESIDENTIAL USE

B.D. REFERENCE	屋宇署檔案
F.S.D. REFERENCE	消防處檔案
W.W.O. REFERENCE	水務署檔案
CAD FILE NAME	檔案編號
NOTES	注釋

NO. 修定號	REVISIONS 修定內容	DATE 日期	BY 經手人

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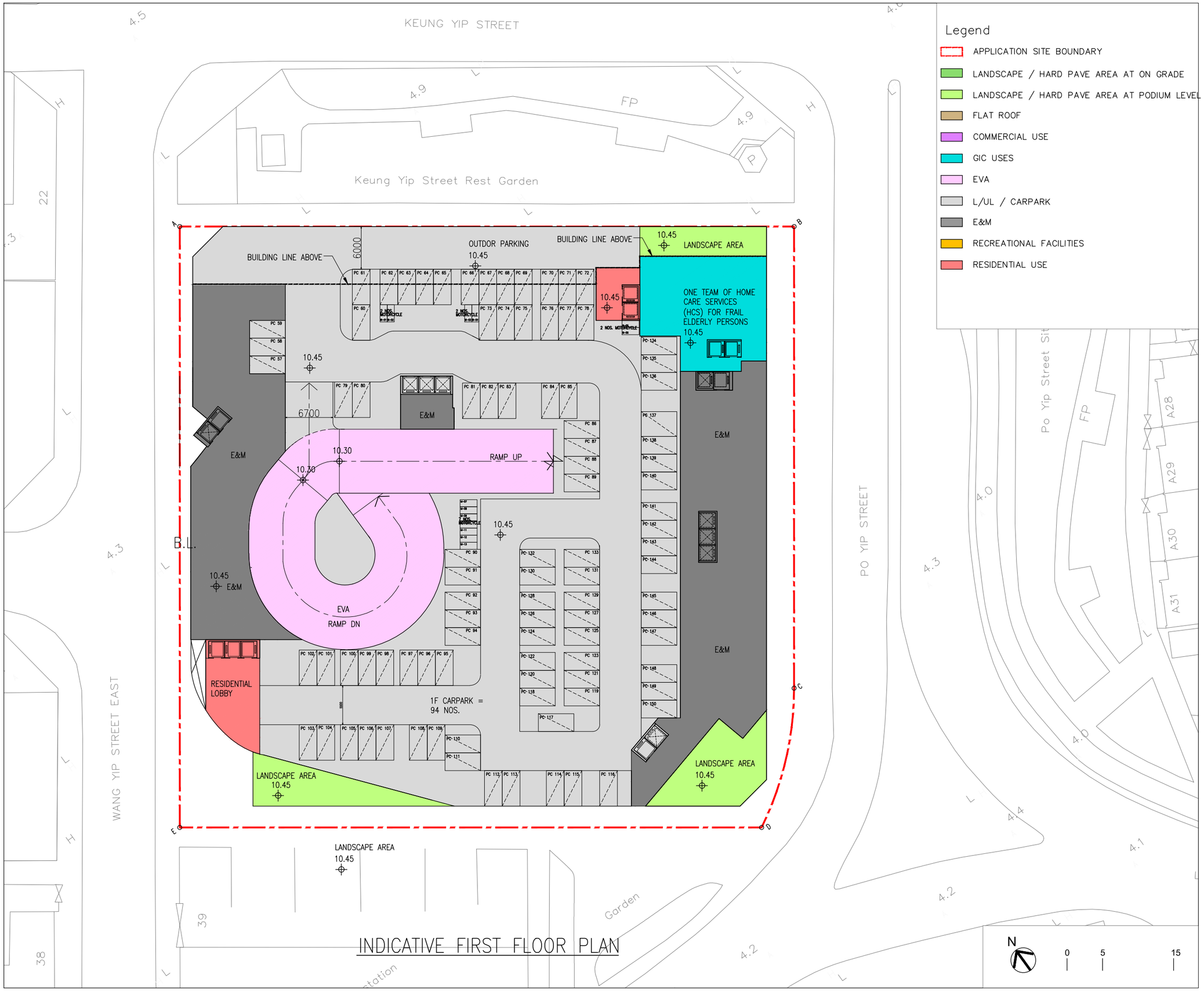
PROJECT 項目名稱

21-25 WANG YIP STREET EAST, YUEN LONG, NEW TERRITORIES, HONG KONG

TITLE 標題

INDICATIVE GROUND FLOOR PLAN

SCALE 比例 1:500(A3)	DATE 日期 JULY 2026
DRAWN BY 製作人 –	CHECKED BY 檢查 –
JOB NO. 工程項目 N3147-H	DRAWING NO. 圖號 –



INDICATIVE FIRST FLOOR PLAN

Legend

- APPLICATION SITE BOUNDARY
- LANDSCAPE / HARD PAVE AREA AT ON GRADE
- LANDSCAPE / HARD PAVE AREA AT PODIUM LEVEL
- FLAT ROOF
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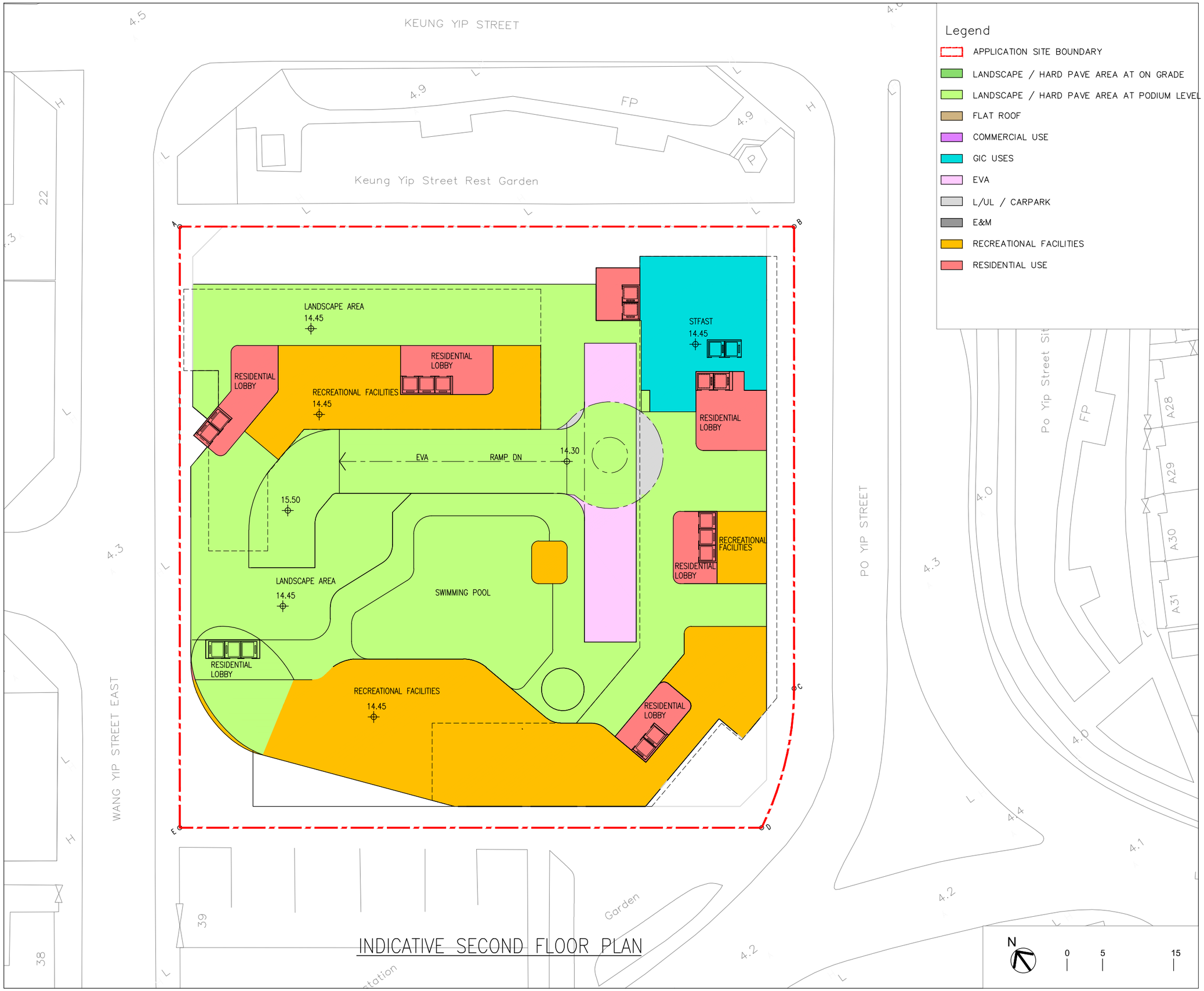

INDICATIVE SECOND FLOOR PLAN

Legend

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- LANDSCAPE / HARD PAVE AREA AT PODIUM LEVEL
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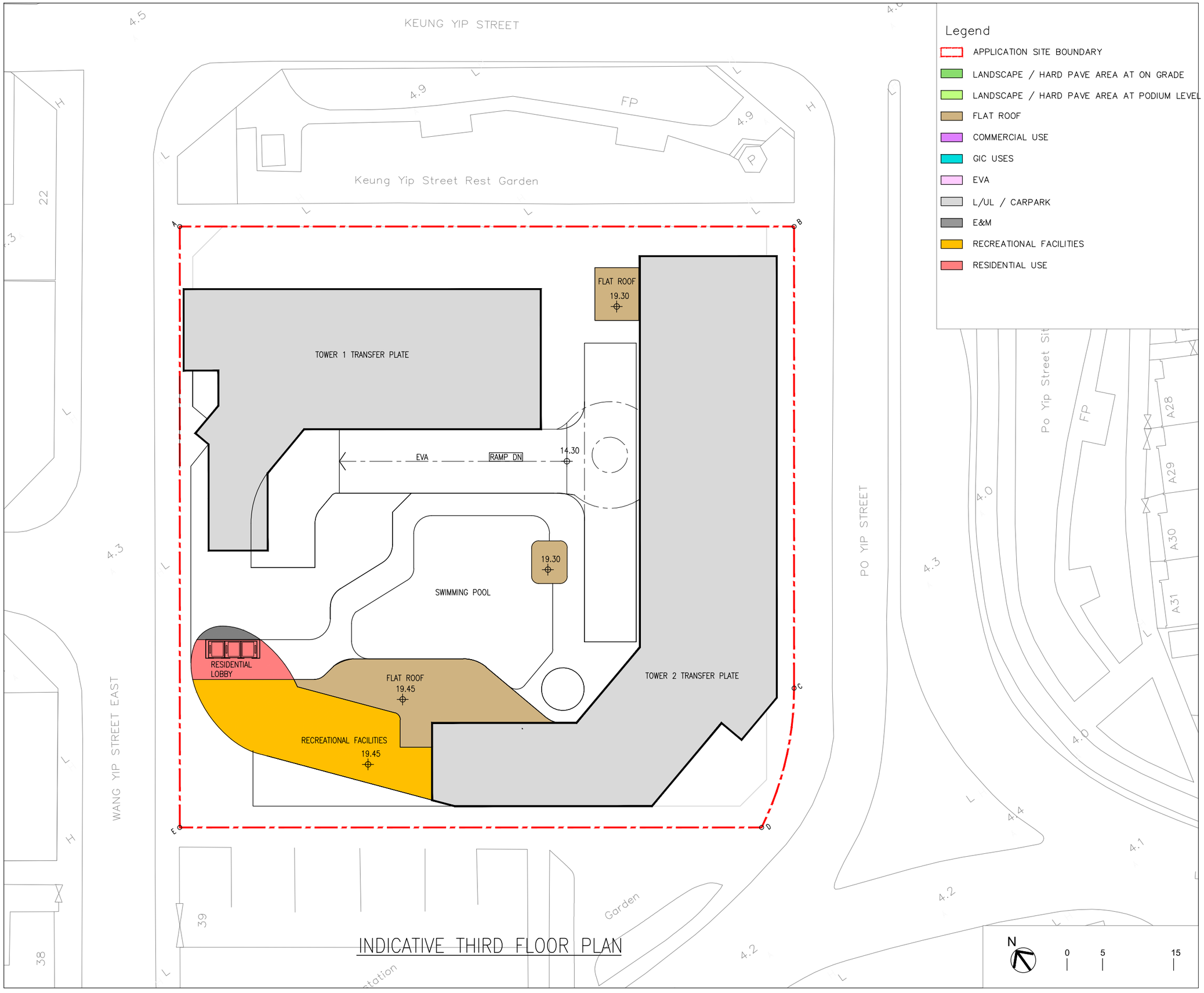

INDICATIVE THIRD FLOOR PLAN

Legend

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- LANDSCAPE / HARD PAVE AREA AT PODIUM LEVEL
- FLAT ROOF
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INDICATIVE SECOND FLOOR PLAN

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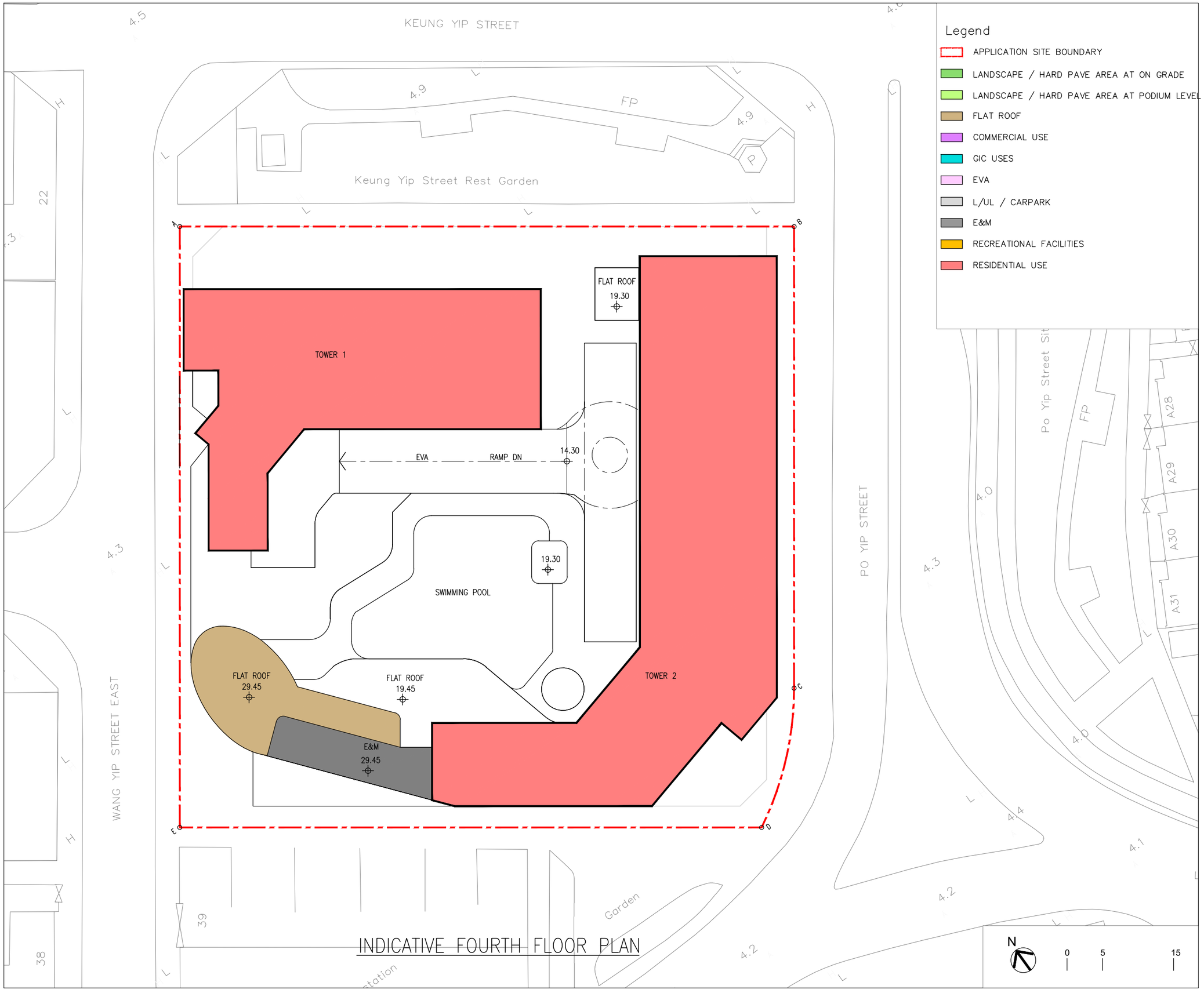

INDICATIVE FOURTH FLOOR PLAN

Legend

- APPLICATION SITE BOUNDARY
- LANDSCAPE / HARD PAVE AREA AT ON GRADE
- LANDSCAPE / HARD PAVE AREA AT PODIUM LEVEL
- FLAT ROOF
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B.D. REFERENCE	屋宇署檔案
F.S.D. REFERENCE	消防處檔案
W.W.O. REFERENCE	水務署檔案
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PROJECT 項目名稱

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INDICATIVE SECOND FLOOR PLAN

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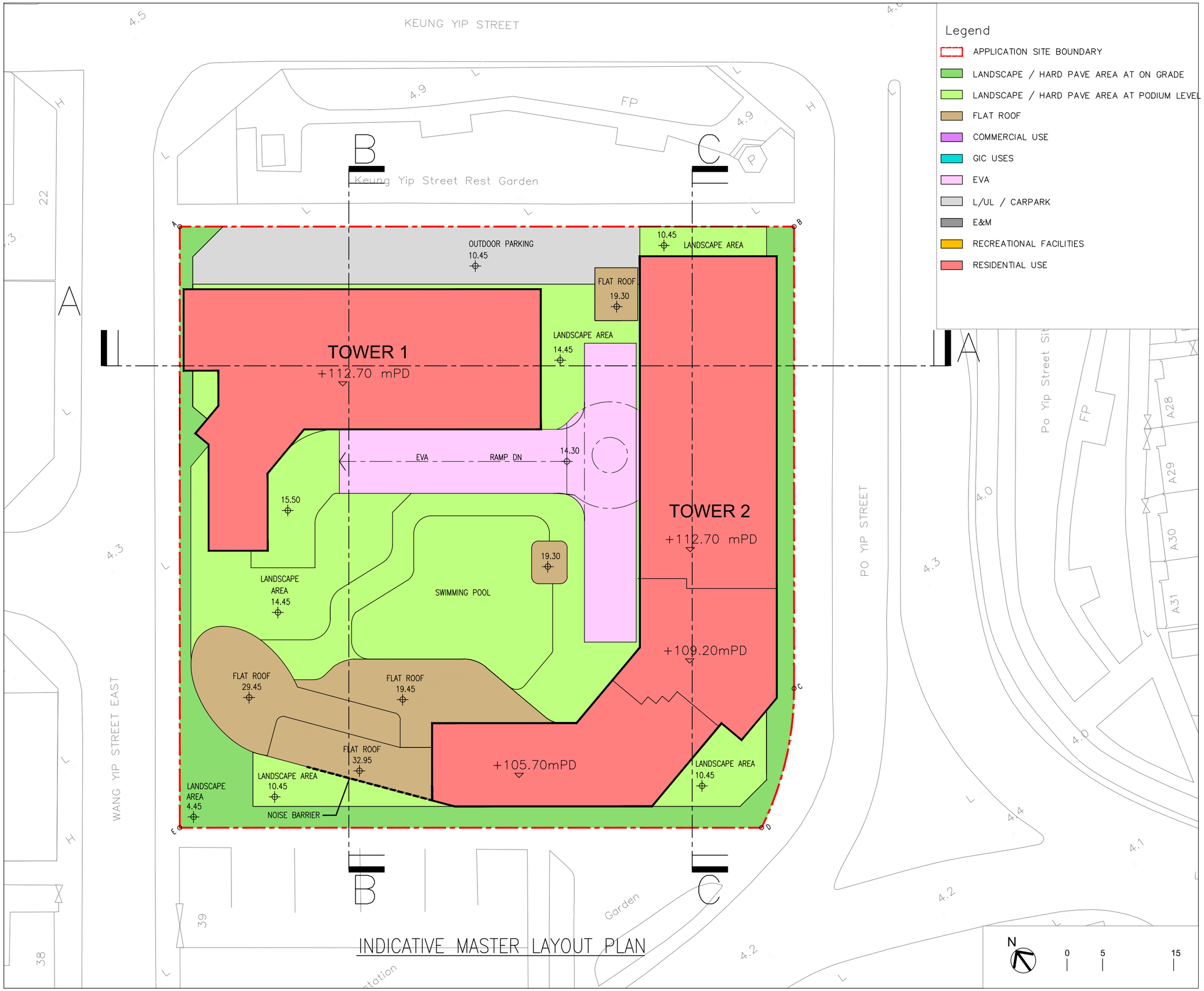

INDICATIVE MASTER LAYOUT PLAN

Legend

- APPLICATION SITE BOUNDARY
- LANDSCAPE / HARD PAVE AREA AT ON GRADE
- LANDSCAPE / HARD PAVE AREA AT PODIUM LEVEL
- FLAT ROOF
- COMMERCIAL USE
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B.D. REFERENCE	屋宇署檔案
F.S.D. REFERENCE	消防處檔案
W.W.O. REFERENCE	水務署檔案
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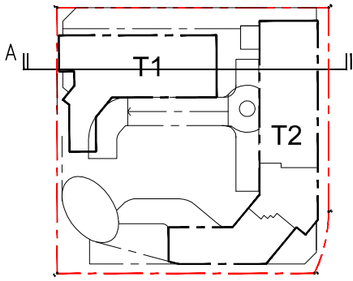
21-25 WANG YIP STREET EAST, YUEN LONG, NEW TERRITORIES, HONG KONG

TITLE 標題

INDICATIVE MASTER LAYOUT PLAN

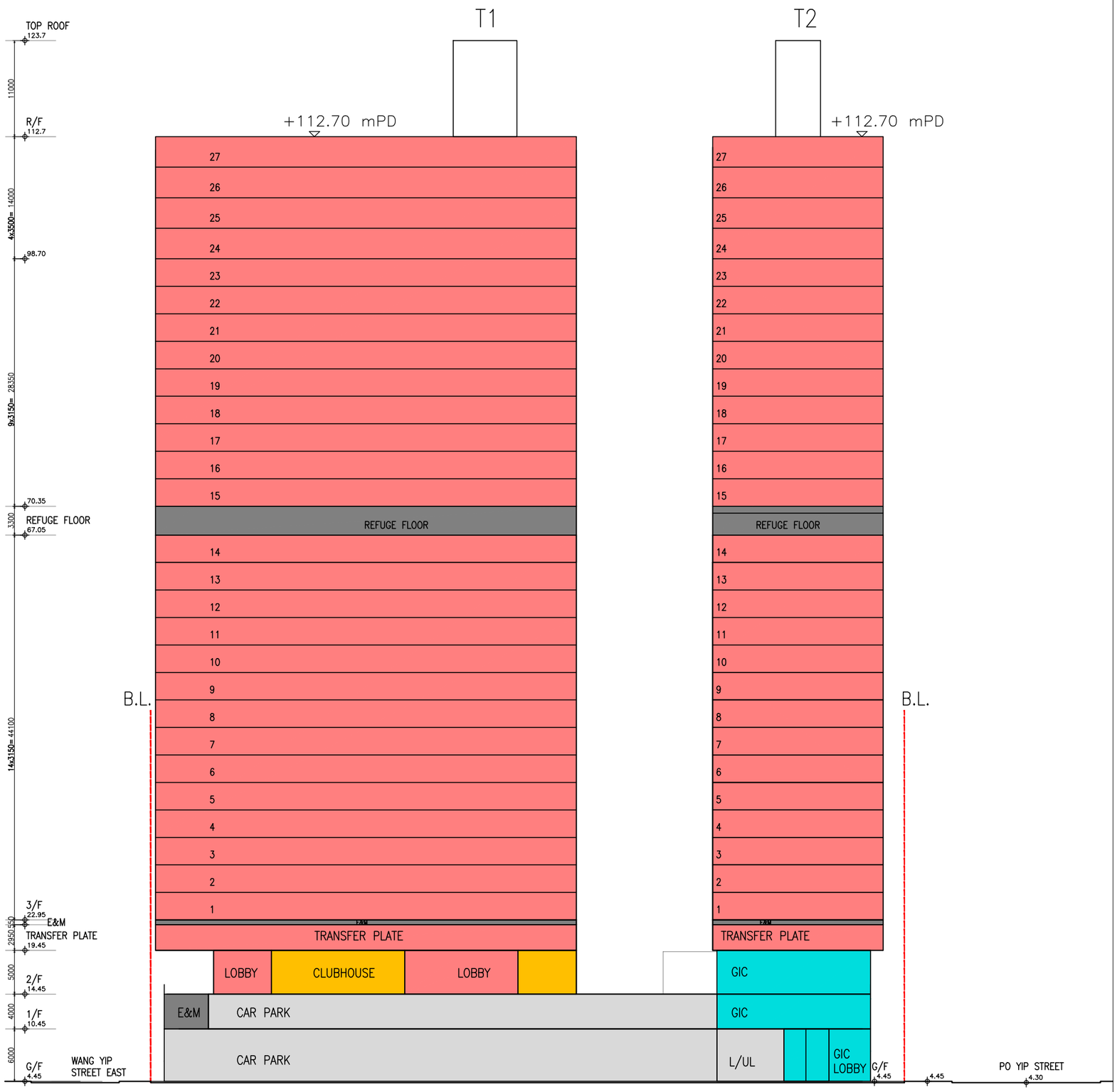
SCALE 比例 1:500(A3)	DATE 日期 MAR 2026
DRAWN BY 製作人 –	CHECKED BY 檢查 –
JOB NO. 工程項目 N3147-H	DRAWING NO. 圖號 –



KP

Legend

- APPLICATION SITE BOUNDARY
- COMMERCIAL USE
- GIC USES
- EVA
- L/UL / CARPARK
- E&M
- RECREATIONAL FACILITIES
- RESIDENTIAL USE



SECTION A–A

B.D. REFERENCE	屋宇署檔案
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TITLE 標題

INDICATIVE SECTION PLAN

SCALE 比例 1:500(A3)	DATE 日期 MAR 2026
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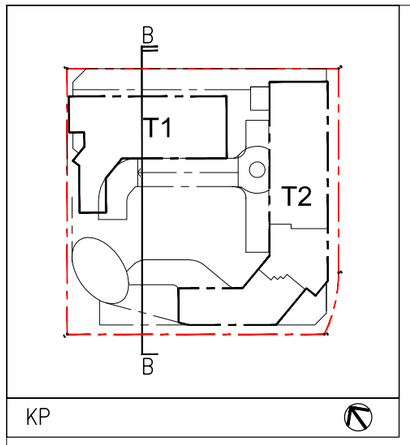
JOB NO. 工程項目 N3147–H	DRAWING NO. 圖號 –



Legend

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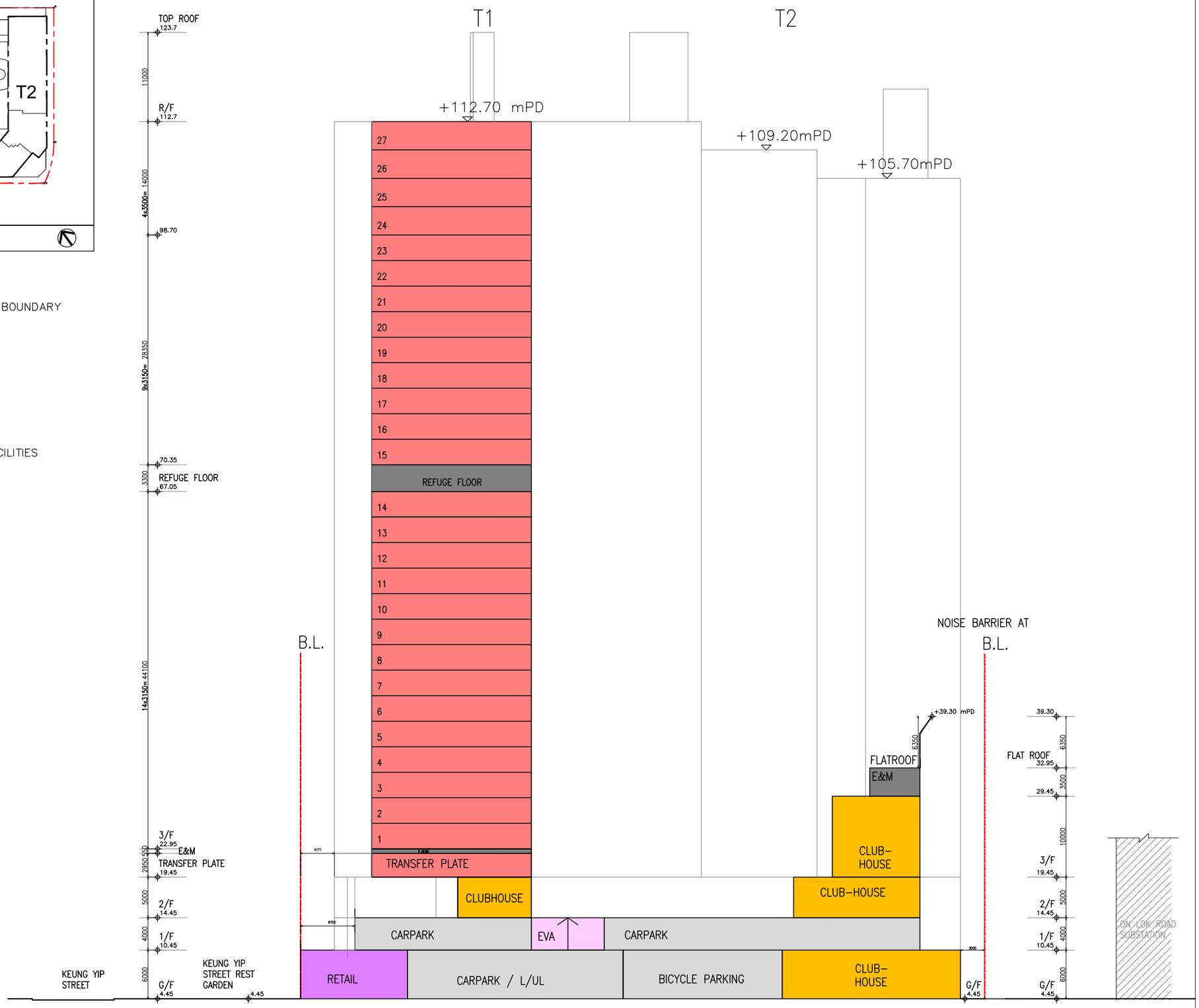

SECTION B-B

B.D. REFERENCE	屋宇署檔案
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PROJECT 項目名稱

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TITLE 標題

INDICATIVE SECTION PLAN

SCALE 比例 1:500(A3)	DATE 日期 APRIL 2026
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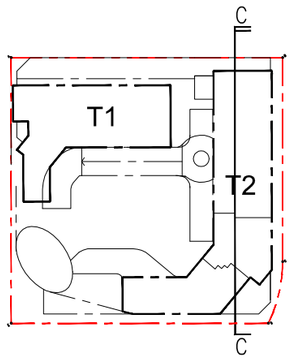

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Legend

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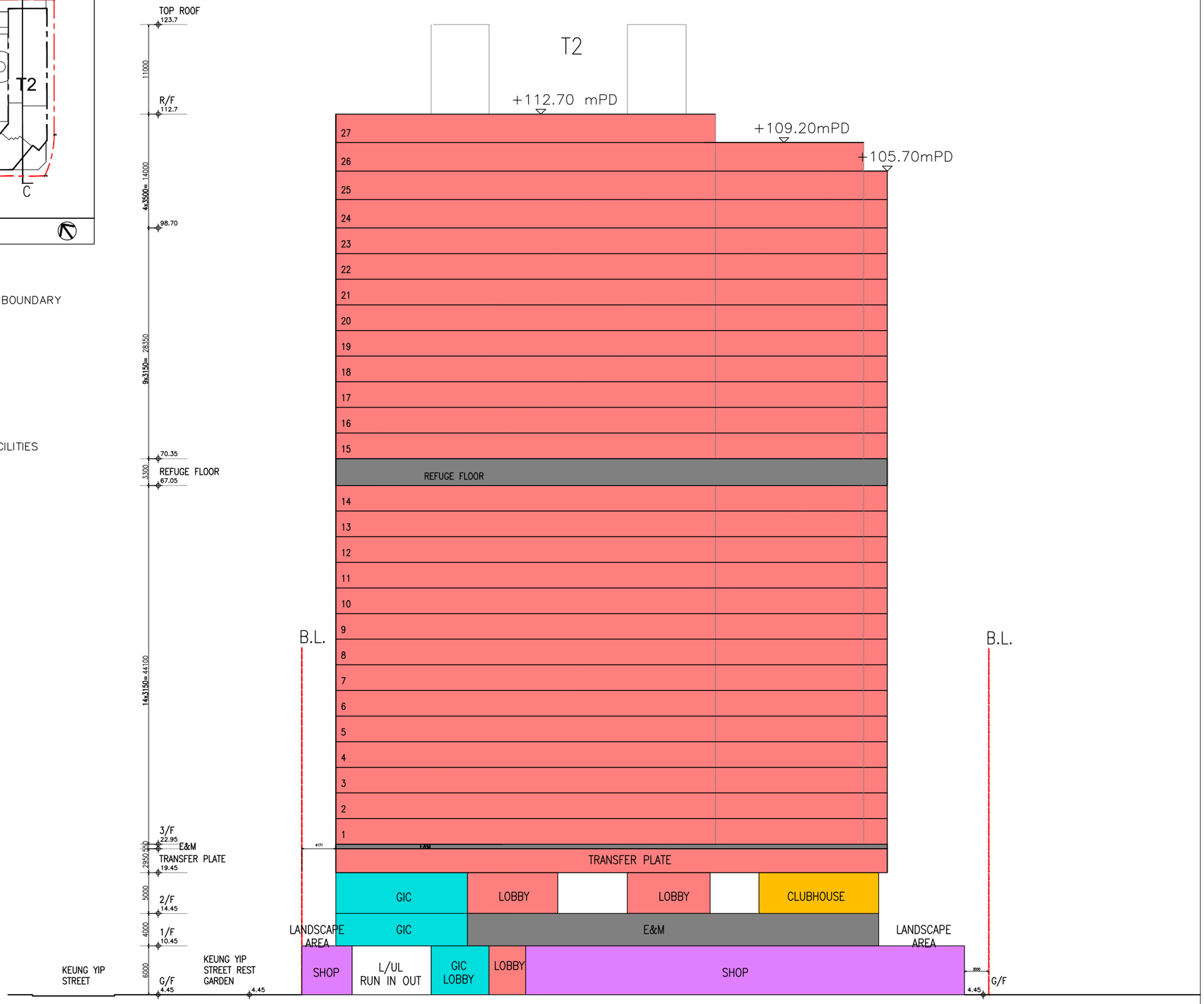

SECTION C–C

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PROJECT 項目名稱

21–25 WANG YIP STREET EAST, YUEN LONG, NEW TERRITORIES, HONG KONG

TITLE 標題

INDICATIVE SECTION PLAN

SCALE 比例 1:500(A3)	DATE 日期 APRIL 2026
DRAWN BY 製作人 –	CHECKED BY 檢查 –
JOB NO. 工程項目 N3147–H	DRAWING NO. 圖號 –

Appendix 2-1 Correspondence from Environmental Protection Department

Calvin Chiu

From: YF CHIU/EPD <yfchiu@epd.gov.hk>
Sent: Friday, June 26, 2026 4:36 PM
To: Anna Wu
Cc: Calvin Chiu; Billy Fan; Coco Ma
Subject: Fw: Request for Information of Odour Complaints within 500m assessment area at Nos. 21-35 Wang Yip Street East (Lai Sun Yuen Long Centre) in Yuen Long
Attachments: Location of Application Site and Potential Odour Sources.pdf

Some people who received this message don't often get email from yfchiu@epd.gov.hk. Learn why this is important

Dear Anna,

With reference to your enquiry of 16 June 2026, please find below the complaint figures for the specified pollution sources indicated in your location plan, within the 500-metre assessment area of the Application Site.

Year	No. of Odour Complaints	Status
2021	1	All cases settled
2022	8	
2023	5	
2024	3	
2025	1	

Regards,

Y.F. CHIU
Chief Environmental Protection Inspector
Regional Office (North)
Environmental Protection Department
Tel: 2158 5871

From: Anna Wu <AYMWU@ramboll.com>
Sent: Tuesday, June 16, 2026 2:46 PM
To: HOTLINE_N/EPD <hotline_n@epd.gov.hk>
Cc: Calvin Chiu <cchiu@ramboll.com>; Billy Fan <bfan@ramboll.com>; Coco Ma <COCOMA@ramboll.com>
Subject: Request for Information of Odour Complaints within 500m assessment area at Nos. 21-35 Wang Yip Street East (Lai Sun Yuen Long Centre) in Yuen Long

Dear Sir/ Madam,

Environmental Assessment for Redevelopment of Lai Sun Yuen Long Centre at Nos. 21-35 Wang Yip Street East, YLTL 362
Request for Information of Odour Complaints within 500m Assessment Area at Lai Sun Yuen Long Centre in Yuen Long

We are the environmental consultant employed by the project proponent for conducting an Environmental Assessment for the captioned Redevelopment Study in Yuen Long.

Of particular interests is whether there is any information regarding historical complaint(s) received in the past five years (2021-2025) on the odour issue (if any) within the 500m assessment area of the Application Site (figure as attached).

If there are odour complaints within the 500m assessment area, we would be much appreciated if you would provide us the number of complaints received in each year between 2021 to 2025. We would be grateful if there is any additional information including the date of complaint, affected area, as well as any identification of the odour source(s) and any mitigation measures / improvements of the odour source(s), if necessary, have been implemented after receiving the complaints(s).

Due to the urgency of the project, we would be much appreciated if you could provide the requested information by 30 June 2026.

Should you have any queries, please do not hesitate to contact the undersigned. We sincerely seek your feedback on this matter. Thank you in advance for any assistance you can provide.

Kind regards

Anna Wu

Assistant Environmental Consultant

D +852 3465 2863
M +852 6210 3085
aymwu@ramboll.com

_____

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21st Floor
BEA Harbour View Centre
56 Gloucester Road
Wan Chai
Hong Kong

https://ramboll.com

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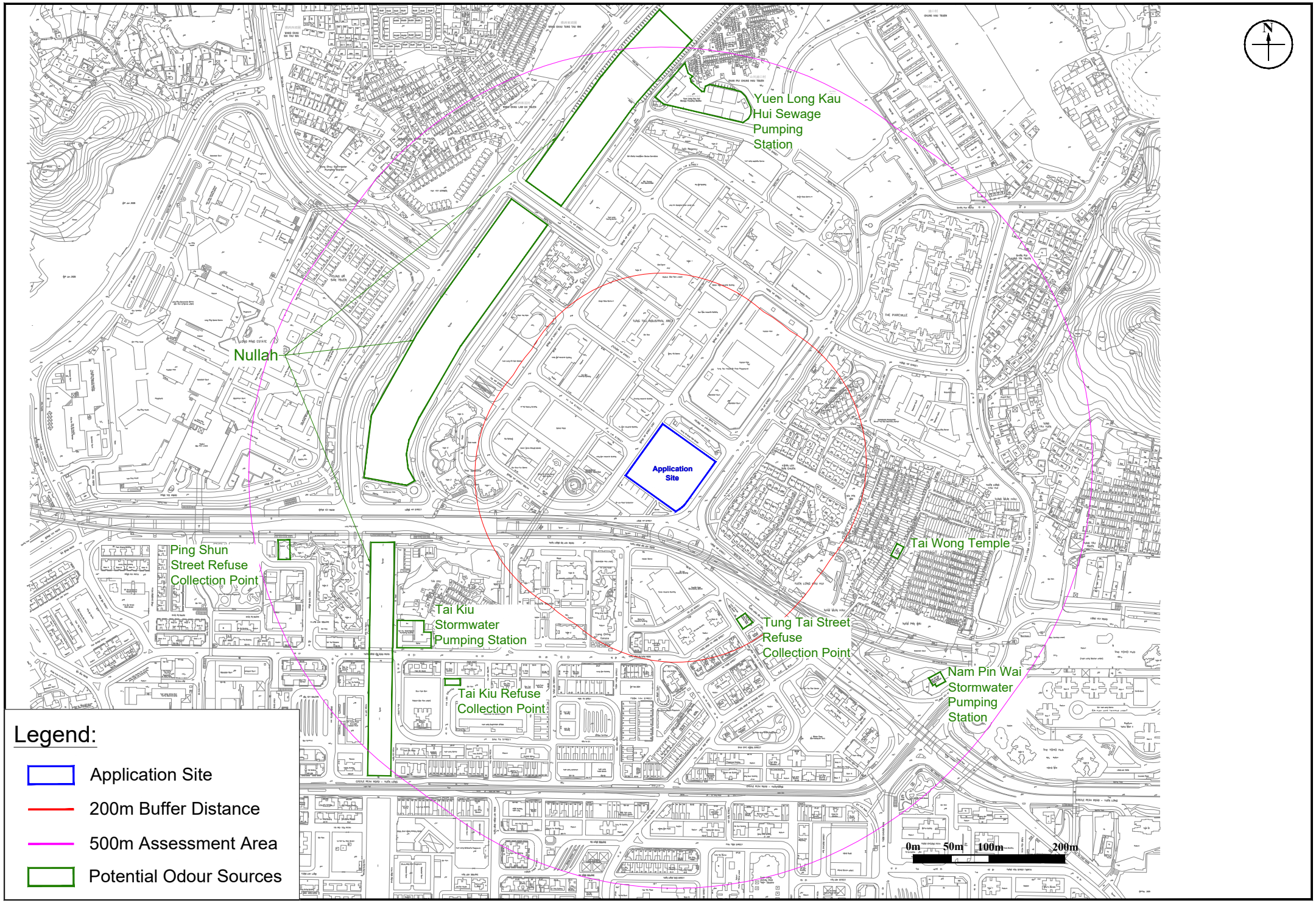
Classification: Confidential


Yuen Long Kau Hui Sewage Pumping Station
Nullah
Application Site
Ping Shun Street Refuse Collection Point
Tai Kiu Stormwater Pumping Station
Tai Kiu Refuse Collection Point
Tung Tai Street Refuse Collection Point
Tai Wong Temple
Nam Pin Wai Stormwater Pumping Station
0m 50m 100m 200m
Legend:
Application Site
200m Buffer Distance
500m Assessment Area
Potential Odour Sources

Appendix 2-2 Correspondence from TD for Road Classification extracted from Past Studies

CKM ASIA LIMITED 陳錦敏亞洲有限公司
Traffic and Transportation Planning Consultants 交通及運輸策劃顧問

Our Ref: J7145/4 20 April 2022

Transport Department
NT Regional Office
Traffic Engineering (NTW) Division
7/F, Mong Kok Government Offices
30 Luen Wan Street
Mong Kok, Kowloon

Attn: Mr LEE Kar Chun, Wilson (Engr / YLE)

(BY POST)

Dear Mr Lee,

Planning Application for Redevelopment of
Lai Sun Yuen Long Centre, 21 – 35 Wang Yip Street East,
Yuen Long (Yuen Long Town Lot No. 362)

Road Type for Environmental Assessment

CKM Asia Limited is the Traffic Consultant engaged by the Developer of the captioned planning application.

According to comment (3) from Environmental Protection Department (EPD) on the Environmental Assessment, *"The consultant should provide source of reference or TD's endorsement that the assumption of the road type for Po Yip Street, Keung Yip Street and Wang Yip Street East are correct"*.

To facilitate the response to EPD, we would like to confirm with your department the **Road Type** for the roads which we are unable to find in the Annual Traffic Census (ATC), and are listed in Table 1.

TABLE 1 ROAD TYPE

Road Name	Road Type	Remarks
1. Po Yip Street	Local Distributor	Not specified in ATC published by Transport Department. These roads have similar road hierarchy as Wang Lok Street, which is ATC Station No. 6628 and is a Local Distributor
2. Keung Yip Street	Local Distributor	
3. Wang Yip Street East	Local Distributor	

We would greatly appreciate your department's confirmation at your earliest convenience.

21st Floor, Methodist House, 36 Hennessy Road, Wanchai, Hong Kong
香港灣仔軒尼詩道36號循道衛理大廈21樓
Tel 電話: (852) 2520 5990 Fax 傳真: (852) 2528 6343
Email 電郵: mail@ckmasia.com.hk Website 網址: http://www.ckmasia.com.hk

Should you have any queries, please do not hesitate to contact the undersigned.

Thank you for your attention.

Yours sincerely

p.p.

CHIN Kim Meng
Director

cc: Client
Kenneth To & Associates
Ramboll HK

Encl. 1 page

KIM\THC

COMMENT FROM EPD

consultants to ensure the validity of the chimney data by their own site surveys. Should the information of industrial chimneys be subsequently found to be incorrect, the assessment result as presented in the planning application would be invalidated.

3. Section 2.3.2
The consultant should provide source of reference or TD's endorsement that the assumption of the road type for Po Yip Street, Keung Yip Street and Wang Yip Street East are correct. Otherwise, please provide the peak traffic flow at Po Yip Street, Keung Yip Street and Wang Yip Street East to justify that the traffic flow is very limited and hence the buffer distance of 5m for the closest air-sensitive use of the proposed development from the road is sufficient.

4. Section 2.3.4
(a) It is noted that part of the social welfare facility would be located within 20m buffer zone from Long Yip Street instead of Yuen Long On Lok Road. Please check and rectify.
(b) Please mark the location of central air intake point of the social welfare facility clearly in Figure 2.1 to demonstrate the air intake of central air conditioning would not be located within the buffer zone. Please also ensure no any air sensitive uses including openable windows would be located within the buffer zone from all the surrounding roads including Long Yip Street.
(c) It is noted that part of the recreational facility and Tower 2A are located within the buffer zone from Wang Yip Street East. Please clarify whether any air sensitive uses, including fresh air intake, openable windows of the buildings, active recreational uses would be located within the buffer zones and state clearly in the text. If buffer distance requirements for either road or industrial chimney as per HKPSG could not be met, quantitative impact assessment shall be carried out.

5. Section 2.4.1
Please clarify when and where (e.g. around the subject site) the site survey is conducted and state clearly in the section. Please also address if there is any odour or air quality impact arising from the nearby workshops and Tung Tai Street Refuse Collection Point on the subject site.

6. Section 2.4.2
Please delete "with respect to the HKPSG" in the last line.

7. Section 2.5.1
Please revise the text in line 3: "… the air sensitive uses in the MLP including ~~(or its~~ any fresh air intake location~~)~~ are…"

8. Section 6.2.2
The consultant should be reminded that both air pollution control (non-road mobile machinery) (emission) regulation and Air Pollution Control (Fuel Restriction) Regulation (i.e. using liquid fuel with a sulphur content of less than 0.005% by weight) shall be followed to control the exhaust emissions from construction equipment. Please supplement.
Please also justify why the number of construction plant is unlikely to be high.

Sewerage

1. Figure 7.2: Please include sewage pipeline of Catchment A in the Figure. In addition, One Regent Place is one of the upstream in Catchment A.

2. Table 3 in Appendix 7.1:
- Please provide number of WC, Urinal and Basin for item 16 in Catchment A (S1) , item 1 in Catchment B (S2) and item 3 in Catchment C (S3)
- For item 21 (Yuen Long Hi-Tech Centre) in Catchment A (S1), based on information from internet, Yuen Long Hi-Tech Centre is 18 storey building with gross area 1,856 sqm, please verify the correctness of

NK2DB

By Fax
2528 6343

運輸署
Transport Department

本署檔案 Our Ref. : (NK301) in TD NR 157/161/YLTL-362
來函檔號 Your Ref. : J7154/4
電 話 Tel. : 2399 2421
圖文傳真 Fax : 2381 3799
電 郵 Email : kclee@td.gov.hk

26 April 2022

CKM Asia Limited
21st Floor, Methodist House
36 Hennessy Road
Wanchai, Hong Kong
(Attn: Mr CHIN Kim Meng)

Dear Mr CHIN

Planning Application for Redevelopment of Lai Sun Yuen Long Centre
21 – 35 Wang Yip Street East, Yuen Long
(Yuen Long Town Lot No. 362)

Road Type for Environmental Assessment

I refer to your above referenced letter dated 20 April 2022 on the subject.

I have no adverse comment to the proposed road type from traffic engineering perspective.

Yours sincerely,

(LEE Kar-chun)
for Commissioner for Transport

新界分區辦事處
NT Regional Office
九龍聯運街三十號旺角政府合署七樓
7th Floor, Mong Kok Government Offices, 30 Luen Wan Street, Kowloon.
圖文傳真 Fax No.: 2381 3799 (新界區) (NTRO)

Appendix 3-1 Traffic Forecast for Year 2045

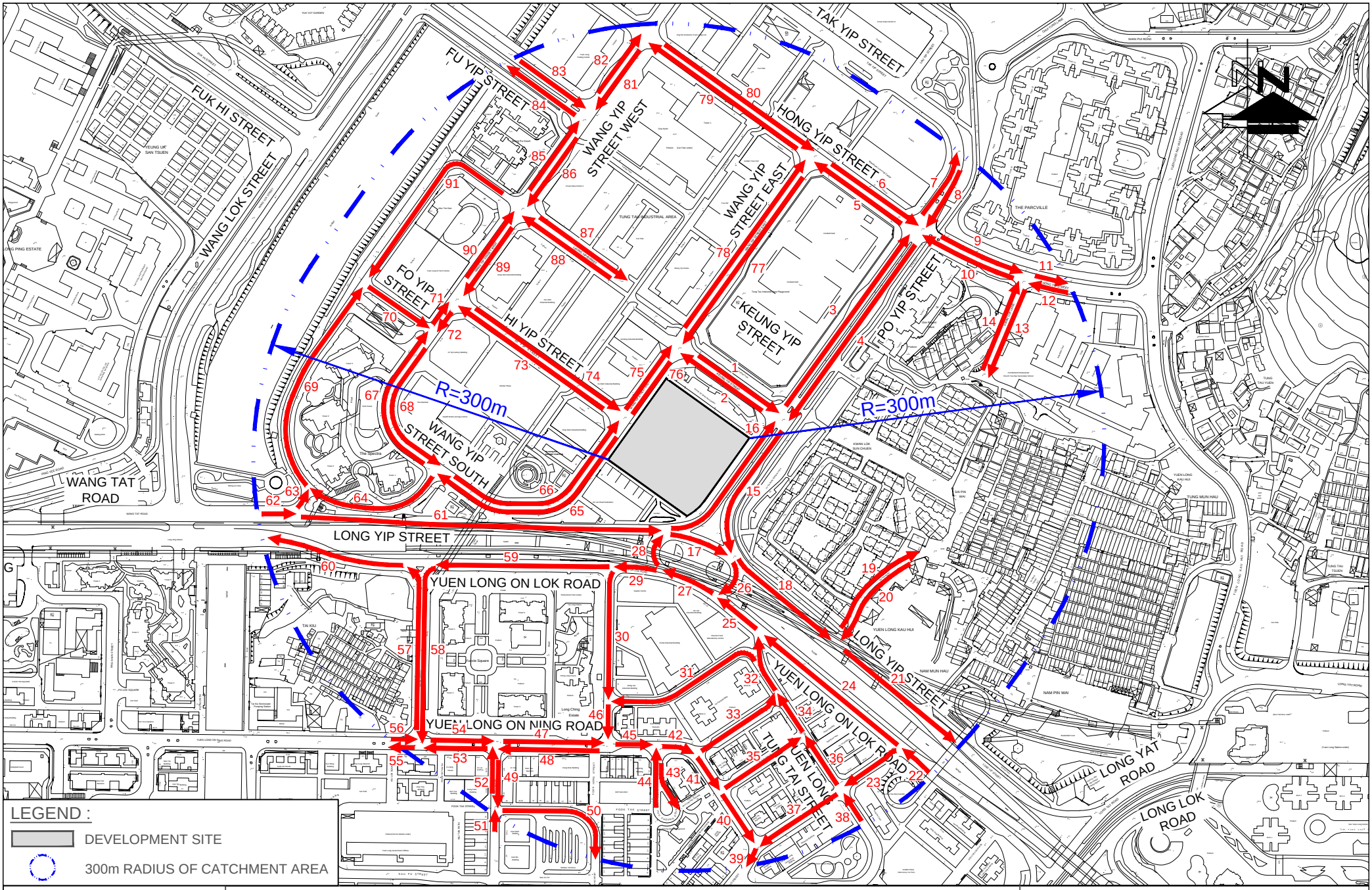


FIGURE NO.: 1	PROJECT TITLE: S16 of Lai Sun Yuen Long Center at 21-35 Wang Yip Street East, Yuen Long	CTA Consultants Limited 志達顧問有限公司
PROJECT NO.: 26016HK	DRAWING TITLE: INDEX PLAN	
SCALE: 1 : 4200 @A4 / DATE: 01 APR 2026		

26016HK

Lai Sun Yuen Long Centre, 21-35 Wang Yip Street East, Yuen Long

(Yuen Long Town Lot No. 362)

2045 TRAFFIC FORECAST FOR TRAFFIC NOISE IMPACT ASSESSMENT

Link No.	Road Name	Speed	Direction	Year 2045			
				AM Peak		PM Peak	
				Traffic Flow (veh/hr)	HV%(1)	Traffic Flow (veh/hr)	HV%(1)
1	Keung Yip Street	50	EB	230	40%	220	37%
2	Keung Yip Street	50	WB	170	34%	190	42%
3	Po Yip Street	50	NB	360	40%	310	44%
4	Po Yip Street	50	SB	590	49%	450	29%
5	Hong Yip Street	50	WB	340	42%	250	39%
6	Hong Yip Street	50	EB	290	36%	290	32%
7	Tak Yip Street	50	NB	80	36%	160	28%
8	Tak Yip Street	50	SB	390	52%	290	27%
9	Hong Yip Street	50	EB	380	26%	200	32%
10	Hong Yip Street	50	WB	330	38%	210	29%
11	Hong Yip Street	50	EB	380	27%	200	33%
12	Hong Yip Street	50	WB	330	39%	210	32%
13	Kwan Lok Lane	50	SB	60	42%	60	29%
14	Kwan Lok Lane	50	NB	110	36%	110	14%
15	Po Yip Street	50	SB	790	46%	650	31%
16	Po Yip Street	50	NB	510	36%	480	41%
17	Long Yip Street	50	EB	1550	40%	1290	33%
18	Long Yip Street	50	EB	1960	45%	1550	34%
19	Sai Kai Road	50	NB	60	53%	60	21%
20	Sai Kai Road	50	SB	60	30%	110	23%
21	Long Yip Street	50	EB	1960	45%	1550	34%
22	Yuen Long On Lok Road	50	WB	1430	32%	1600	39%
23	Yuen Long Tai Cheung Street	50	WB	200	39%	270	36%
24	Yuen Long On Lok Road	50	WB	10	30%	10	40%
25	Yuen Long On Lok Road	50	WB	1880	33%	2090	39%
26	Po Yip Street	50	SB	380	33%	400	24%
27	Yuen Long On Lok Road	50	WB	2260	33%	2490	37%
28	Po Yip Street	50	NB	700	44%	690	42%
29	Yuen Long On Lok Road	50	EB	1560	28%	1810	34%
30	Wang Chau Road	50	SB	290	32%	410	28%
31	Tai Lee Street	50	WB	70	55%	90	33%
32	Yuen Long Tung Tai Street	50	NB	340	46%	430	35%
33	Yuen Long Tai Hang Street	50	EB	190	43%	240	30%
34	Yuen Long Tung Tai Street	50	NB	230	49%	270	39%
35	Tai Fung Street	50	EB	40	51%	60	37%
36	Yuen Long Tung Tai Street	50	NB	190	48%	200	39%
37	Yuen Long Tai Cheung Street	50	WB	210	40%	280	37%
38	Shui Che Kwun Street	50	NB	200	51%	210	43%
39	Kuk Ting Street	50	WB	290	37%	370	33%
40	Sai Tai Street	50	SB	380	37%	420	31%
41	Sai Tai Street	50	SB	420	39%	490	32%

42	Yuen Long On Ning Road	50	EB	610	40%	730	31%
43	Yuen Long Pau Cheung Square	50	SB	590	48%	710	35%
44	Yuen Long Pau Cheung Square	50	NB	20	63%	20	28%
45	Yuen Long On Ning Road	50	EB	600	40%	720	31%
46	Wang Chau Road	50	SB	360	39%	500	29%
47	Yuen Long On Ning Road	50	EB	340	37%	410	30%
48	Yuen Long On Ning Road	50	WB	100	31%	180	23%
49	Tung Lok Street	50	SB	140	32%	220	27%
50	Fook Tak Street	50	SB	270	39%	380	32%
51	Tung Lok Street	50	NB	300	43%	360	32%
52	Tung Lok Street	50	NB	160	41%	190	30%
53	Yuen Long On Ning Road	50	WB	280	44%	450	30%
54	Yuen Long On Ning Road	50	EB	500	37%	600	31%
55	Yuen Long On Ning Road	50	WB	300	24%	450	38%
56	Yuen Long On Ning Road	50	EB	320	43%	440	33%
57	Tai Kiu Road	50	NB	150	52%	190	34%
58	Tai Kiu Road	50	SB	350	20%	360	35%
59	Yuen Long On Lok Road	50	WB	1010	27%	1140	36%
60	Yuen Long On Lok Road	50	WB	1040	32%	1200	36%
61	Long Yip Street	50	EB	1360	35%	1090	30%
62	Long Yip Street	50	EB	1500	38%	1200	32%
63	Slip Road to Kwong Yip Street	50	NB	140	47%	110	37%
64	Kwong Yip Street	50	WB	30	36%	30	56%
65	Wang Yip Street South	50	WB	40	44%	50	31%
66	Wang Yip Street South	50	EB	100	48%	110	50%
67	Wang Yip Street South	50	NB	30	49%	40	26%
68	Wang Yip Street South	50	SB	110	47%	120	49%
69	Kwong Yip Street	50	NB	170	46%	140	39%
70	Fo Yip Street	50	EB	210	48%	180	41%
71	Wang Yip Street West	50	NB	140	46%	150	35%
72	Wang Yip Street West	50	SB	110	43%	120	47%
73	Hi Yip Street	50	WB	90	41%	100	52%
74	Hi Yip Street	50	EB	120	46%	100	40%
75	Wang Yip Street East	50	NB	270	41%	220	43%
76	Wang Yip Street East	50	SB	110	41%	130	43%
77	Wang Yip Street East	50	SB	70	46%	80	33%
78	Wang Yip Street East	50	NB	140	38%	80	56%
79	Hong Yip Street	50	WB	390	41%	220	43%
80	Hong Yip Street	50	EB	280	35%	320	29%
81	Wang Yip Street West	50	SB	300	35%	310	31%
82	Wang Yip Street West	50	NB	660	34%	370	22%
83	Fu Yip Street	50	EB	590	45%	270	24%
84	Fu Yip Street	50	WB	390	50%	410	34%
85	Wang Yip Street West	50	NB	300	50%	350	38%
86	Wang Yip Street West	50	SB	150	51%	150	42%
87	Leung Yip Street	50	EB	110	54%	110	48%
88	Leung Yip Street	50	WB	110	80%	110	47%
89	Wang Yip Street West	50	SB	100	52%	110	39%
90	Wang Yip Street West	50	NB	200	48%	220	39%

91	Leung Yip Street	50	WB	30	34%	30	40%

Note:

(1) HV includes Light Van, Public Light Bus, Light Goods Vehicle, Medium Goods Vehicle, Heavy Goods Vehicle and Container/Tractor, Coach and Bus.

Appendix 3-2 Results of Road Traffic Noise Impact Assessment (Base Case and Mitigated Case Scenario)

Predicted Road Traffic Noise at Selected Sensitive Receivers
Base Case (AM Peak Flow)

Tower 1

Floor	mPD	N1-01	N1-02	N1-03	N1-04	N1-05	N1-06	N1-07	N1-08	N1-09	N1-10	N1-11	N1-12	N1-13	N1-14	N1-15	N1-16	N1-17	N1-18	N1-19	N1-20
3/F	23.0	**73**	66	65	65	65	65	65	65	65	65	65	65	65	65	66	65	66	66	66	66
4/F	26.1	**73**	**72**	70	69	69	69	70	70	70	70	70	70	70	70	70	70	70	70	70	68
5/F	29.3	**73**	**72**	**71**	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	68
6/F	32.4	**72**	**72**	**71**	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	68
7/F	35.6	**72**	**72**	**71**	**71**	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	68
8/F	38.7	**72**	**72**	**71**	**71**	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	68
9/F	41.9	**71**	**71**	**71**	**71**	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	68
10/F	45.0	**71**	**71**	**71**	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	68
11/F	48.2	**71**	**71**	**71**	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	68
12/F	51.3	**71**	**71**	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	68
13/F	54.5	**71**	**71**	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	67
14/F	57.6	**71**	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	69	69	67
15/F	60.8	**71**	70	70	70	70	70	70	69	69	69	69	69	69	69	69	69	69	69	69	67
16/F	63.9	70	70	70	70	70	69	69	69	69	69	69	69	69	69	69	69	69	69	69	67
17/F	67.1	70	70	70	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	67
18/F	70.4	70	70	70	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	67
19/F	73.5	70	70	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	67
20/F	76.7	70	70	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	67
21/F	79.8	70	70	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	66
22/F	83.0	70	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	68	66
23/F	86.1	70	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	68	68	66
24/F	89.3	70	69	69	69	69	69	69	69	69	69	69	69	69	69	68	68	68	68	68	66
25/F	92.4	70	69	69	69	69	69	69	69	69	68	69	69	68	68	68	68	68	68	68	66
26/F	95.6	69	69	69	69	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	66
27/F	98.7	69	69	69	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	66
28/F	102.2	69	69	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	66
29/F	105.7	69	69	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	66
30/F	109.2	69	69	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	66
Max Noise Level		**73**	**72**	**71**	**71**	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	68
Exceedance		13				0			0			0			0			0			

Floor	mPD	N1-21	N1-22	N1-23	N1-24	N1-25	N1-26	N1-27	N1-28	N1-29	N1-30	N1-31	N1-32	N1-33	N1-34	N1-35	N1-36	N1-37	N1-38	N1-39	N1-40	N1-41	N1-42	N1-43	N1-44
3/F	23.0	64	47	48	48	48	48	48	48	48	48	48	48	48	48	47	47	47	47	47	47	47	47	48	52
4/F	26.1	66	47	48	48	49	49	49	49	49	49	49	49	49	48	48	48	48	47	47	47	47	48	49	55
5/F	29.3	66	47	50	50	50	50	51	51	51	51	51	51	51	50	48	48	48	48	47	48	48	48	50	57
6/F	32.4	66	48	52	52	53	53	53	53	54	54	54	54	53	52	50	49	49	48	48	48	48	49	53	61
7/F	35.6	66	49	56	56	57	58	58	58	58	58	59	58	58	56	52	51	51	49	49	49	49	50	57	64
8/F	38.7	66	51	58	59	60	60	61	61	61	61	61	61	61	58	55	54	54	50	49	50	50	52	59	65
9/F	41.9	66	55	60	61	61	62	62	62	62	63	63	62	62	60	57	56	55	52	50	51	52	53	60	65
10/F	45.0	66	57	62	62	62	62	63	63	63	63	63	63	62	61	58	57	56	53	52	53	53	55	61	65
11/F	48.2	66	58	62	63	63	63	63	63	63	63	64	63	62	61	58	58	57	55	53	54	55	57	61	66
12/F	51.3	66	59	63	63	63	63	63	64	64	64	64	63	63	61	59	58	58	56	55	56	56	58	62	66
13/F	54.5	66	60	63	63	63	64	64	64	64	64	64	63	63	62	60	59	59	57	56	57	58	59	63	66
14/F	57.6	66	60	63	63	64	64	64	64	64	64	64	64	63	62	60	60	59	58	57	58	59	60	63	66
15/F	60.8	66	60	63	63	64	64	64	64	64	64	64	64	63	62	61	60	60	59	58	59	60	61	63	67
16/F	63.9	66	60	63	63	64	64	64	64	64	64	64	64	64	63	61	61	61	60	59	60	60	61	64	67
17/F	67.1	66	60	63	63	64	64	64	64	64	64	65	64	64	63	61	61	61	60	60	60	61	62	64	67
18/F	70.4	66	60	63	63	64	64	64	64	64	65	65	64	64	63	62	61	61	61	60	61	61	62	64	67
19/F	73.5	66	60	63	64	64	64	64	64	64	65	65	64	64	63	62	61	62	61	60	61	61	62	64	67
20/F	76.7	66	60	63	64	64	64	64	64	64	65	65	64	64	63	62	62	62	61	61	61	62	63	64	67
21/F	79.8	66	61	63	64	64	64	64	64	65	65	65	64	64	63	62	62	62	61	61	61	62	63	64	67
22/F	83.0	66	61	63	64	64	64	64	64	65	65	65	64	64	63	62	62	62	61	61	61	62	63	64	67
23/F	86.1	66	61	63	64	64	64	64	64	65	65	65	64	64	63	62	62	62	62	61	61	62	63	64	67
24/F	89.3	66	61	63	64	64	64	64	64	65	65	65	64	64	63	62	62	62	62	61	61	62	63	64	67
25/F	92.4	66	61	63	64	64	64	64	64	64	65	65	64	64	63	62	62	62	62	61	62	62	63	64	67
26/F	95.6	66	61	63	64	64	64	64	64	64	65	65	64	64	63	62	62	62	62	61	62	62	63	64	67
27/F	98.7	65	61	63	64	64	64	64	64	64	65	65	64	64	63	62	62	62	62	61	62	62	63	64	67
28/F	102.2	65	61	63	64	64	64	64	64	64	65	65	64	64	63	62	62	62	62	61	62	62	63	64	67
29/F	105.7	65	61	63	64	64	64	64	64	64	65	65	64	64	63	62	62	62	62	61	62	62	63	64	67
30/F	109.2	65	61	63	64	64	64	64	64	64	65	65	64	64	63	62	62	62	62	61	62	62	63	65	67
Max Noise Level		66	61	63	64	64	64	64	64	65	65	65	64	64	63	62	62	62	62	61	62	62	63	65	67
Exceedance		0				0			0			0			0			0			0			0	

Predicted Road Traffic Noise at Selected Sensitive Receivers
Base Case (AM Peak Flow)

Tower 2

Floor	mPD	N2-01	N2-02	N2-03	N2-04	N2-05	N2-06	N2-07	N2-08	N2-09	N2-10	N2-11	N2-12	N2-13	N2-14	N2-15	N2-16	N2-17	N2-18	N2-19	N2-20	N2-21	N2-22	N2-23	N2-24	N2-25	N2-26	N2-27	N2-28	N2-29	N2-30
3/F	23.0	52	53	55	55	55	54	54	53	52	54	54	53	53	54	54	54	54	55	56	56	55	56	56	56	57	57	58	58	59	59
4/F	26.1	54	56	57	57	57	57	56	54	54	55	55	55	55	55	55	56	56	57	57	57	57	57	57	58	58	59	59	60	60	61
5/F	29.3	57	58	59	58	58	58	57	55	55	56	56	56	56	56	56	57	57	58	58	58	58	58	59	59	59	59	60	61	61	62
6/F	32.4	59	59	59	59	58	58	58	56	56	57	57	56	56	57	57	58	58	58	58	59	59	59	59	59	60	60	61	61	62	62
7/F	35.6	59	59	59	59	59	59	58	56	56	57	57	57	57	57	58	58	58	58	59	59	59	59	60	60	60	61	61	62	62	63
8/F	38.7	60	60	60	60	59	59	58	57	57	58	58	58	58	58	58	58	59	59	59	59	59	59	60	61	62	62	62	63	63	63
9/F	41.9	62	61	61	60	60	59	59	58	57	58	58	58	58	58	58	59	59	59	59	59	60	60	61	62	62	63	63	63	64	64
10/F	45.0	62	61	61	61	60	60	59	58	58	59	59	58	58	58	59	59	59	59	59	60	60	60	61	62	63	63	63	64	64	64
11/F	48.2	63	62	61	61	61	60	60	59	58	59	59	59	59	59	59	59	59	59	59	60	60	60	61	62	63	63	64	64	64	65
12/F	51.3	63	62	62	61	61	60	60	59	59	59	59	59	59	59	59	59	59	59	60	60	60	60	61	62	63	63	64	64	64	65
13/F	54.5	63	62	62	61	61	61	60	59	59	60	59	59	59	59	59	59	59	59	60	60	60	60	61	62	63	63	64	64	64	65
14/F	57.6	63	62	62	62	61	61	60	59	59	60	60	59	59	59	59	59	59	59	60	60	60	60	61	62	63	63	63	64	64	65
15/F	60.8	63	62	62	62	61	61	60	60	59	60	60	60	60	59	59	60	60	59	60	60	60	60	61	62	62	63	63	64	64	65
16/F	63.9	63	62	62	62	61	61	61	60	60	60	60	60	60	60	60	60	60	59	60	60	60	60	61	62	62	63	63	64	64	65
17/F	67.1	63	62	62	62	61	61	61	60	60	60	60	60	60	60	60	60	60	59	60	60	60	60	61	62	62	63	63	64	64	65
18/F	70.4	63	62	62	62	61	61	61	60	60	60	60	60	60	60	60	60	60	59	60	60	60	60	61	62	62	63	63	64	64	64
19/F	73.5	63	62	62	62	61	61	61	60	60	60	60	60	60	60	60	60	60	59	60	60	60	60	61	62	62	63	63	64	64	64
20/F	76.7	63	62	62	62	61	61	61	60	60	60	60	60	60	60	60	60	60	59	60	60	60	60	61	62	62	63	63	64	64	64
21/F	79.8	63	62	62	62	61	61	61	60	60	60	60	60	60	60	60	60	60	59	60	60	60	60	61	62	62	63	63	64	64	64
22/F	83.0	63	62	62	62	61	61	61	60	60	60	60	60	60	60	60	60	60	59	60	60	60	60	61	62	62	63	63	63	64	64
23/F	86.1	63	62	62	62	61	61	61	60	60	60	60	60	60	60	60	60	60	59	60	60	60	60	61	61	62	62	63	63	64	64
24/F	89.3	63	62	62	62	61	61	61	60	60	60	60	60	60	60	60	60	60	59	60	60	60	60	61	61	62	62	63	63	64	64
25/F	92.4	63	62	62	62	61	61	60	60	60	60	60	60	60	60	60	60	60	59	60	60	60	60	61	61	62	62	63	63	64	64
26/F	95.6	63	62	62	62	61	61	60	60	60	60	60	60	60	60	60	60	60	59	60	60	60	60	61	61	62	62	63	63	63	64
27/F	98.7	63	62	62	62	61	61	60	60	60	60	60	60	60	60	60	60	60	59	60	60	60	60	61	61	62	62	63	63	63	64
28/F	102.2	63	62	62	62	61	61	61	60	60	60	60	60	60	60	60	60	60	59	60	60	60	60	61	61	62	62	63	63	63	64
29/F	105.7	--	--	--	--	--	--	--	--	60	60	60	60	60	60	60	60	60	59	60	60	60	60	61	61	62	62	63	63	63	64
30/F	109.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	60	60	60	60	60	61	61	62	62	63	63	63	64
Max Noise Level		63	62	62	62	61	61	61	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	61	62	63	63	64	64	64	65
Exceedance			0			0		0			0			0			0			0			0			0			0		0

Floor	mPD	N2-31	N2-32	N2-33	N2-34	N2-35	N2-36	N2-37	N2-38	N2-39	N2-40	N2-41	N2-42	N2-43	N2-44	N2-45	N2-46	N2-47	N2-48	N2-49	N2-50	N2-51	N2-52	N2-53	N2-54	N2-55	N2-56	N2-57	N2-58	N2-59	N2-60
3/F	23.0	60	61	61	62	63	64	64	65	66	67	69	74	70	71	68	71	76	75	70	70	65	66	65	62	71	71	71	72	65	66
4/F	26.1	61	62	62	63	64	65	65	66	67	68	70	73	73	74	73	75	77	77	75	76	72	73	71	69	76	76	76	76	71	72
5/F	29.3	62	63	64	64	65	65	66	66	67	68	70	74	73	74	74	76	77	76	76	76	73	74	73	72	76	76	76	76	73	73
6/F	32.4	63	64	64	65	65	66	66	66	67	68	70	74	73	74	73	75	76	76	75	76	74	74	74	72	76	76	76	76	73	74
7/F	35.6	63	64	64	65	65	66	66	66	67	68	70	73	73	74	73	75	76	76	75	76	74	74	74	72	76	76	76	76	73	74
8/F	38.7	64	64	64	65	65	66	66	66	67	68	69	73	73	74	73	75	76	76	75	76	73	74	73	72	76	76	76	76	73	73
9/F	41.9	64	65	65	65	66	66	66	66	67	68	69	73	73	73	73	75	76	76	75	75	73	74	73	72	76	76	76	76	73	73
10/F	45.0	65	65	65	66	66	66	66	67	67	68	69	73	73	73	72	75	76	75	75	75	73	74	73	72	76	76	76	76	72	73
11/F	48.2	65	65	66	66	66	66	67	67	67	68	69	73	72	73	72	74	75	75	75	75	73	74	73	72	75	75	75	75	72	73
12/F	51.3	65	65	66	66	66	67	67	67	67	68	69	73	72	73	72	74	75	75	75	75	73	74	73	72	75	75	75	75	72	73
13/F	54.5	65	65	66	66	66	67	67	67	67	68	69	72	72	73	72	74	75	75	74	75	73	73	73	72	75	75	75	75	72	72
14/F	57.6	65	65	66	66	66	66	67	67	67	68	69	72	72	73	72	74	75	75	74	75	73	73	72	71	75	75	75	75	72	72
15/F	60.8	65	65	66	66	66	66	67	67	67	68	69	72	72	72	71	74	75	75	74	75	73	73	72	71	75	75	75	75	71	72
16/F	63.9	65	65	65	66	66	66	67	67	67	68	69	72	72	72	71	74	75	75	74	74	72	73	72	71	75	75	75	75	71	72
17/F	67.1	65	65	65	66	66	66	66	67	67	68	69	72	71	72	71	74	75	74	74	74	72	73	72	71	74	74	75	75	71	72
18/F	70.4	65	65	65	66	66	66	66	67	67	68	69	72	71	72	71	73	74	74	74	74	72	73	72	71	74	74	74	74	71	71
19/F	73.5	65	65	65	66	66	66	66	67	67	68	69	72	71	72	71	73	74	74	74	74	72	73	72	71	74	74	74	74	71	71
20/F	76.7	65	65	65	66	66	66	66	67	67	68	69	71	71	72	71	73	74	74	74	74	72	72	71	70	74	74	74	74	71	71
21/F	79.8	65	65	65	66	66	66	66	67	67	67	68	71	71	72	70	73	74	74	73	74	72	72	71	70	74	74	74	74	71	71
22/F	83.0	65	65	65	65	66	66	66	66	67	67	68	71	71	71	70	73	74	74	73	74	72	72	71	70	74	74	74	74	70	71
23/F	86.1	64	65	65	65	66	66	66	66	67	67	68	71	70	71	70	73	74	74	73	74	71	72	71	70	74	74	74	74	70	71
24/F	89.3	64	65	65	65	66	66	66	66	67	67	68	71	70	71	70	73	74	74	73	73	71	72	71	70	74	74	74	74	70	71
25/F	92.4	64	65	65	65	66	66	66	66	67	67	68	71	70	71	70	72	74	73	73	73	71	72	71	70	73	73	73	74	70	71
26/F	95.6	64	65	65	65	65	66	66	66	66	67	68	71	70	71	70	72	73	73	73	73	71	72	71	70	73	73	73	73	70	70
27/F	98.7	64	65	65	65	65	66	66	66	66	67	68	70	70	71	70	72	73	73	73	73	71	72	71	70	73	73	73	73	70	70
28/F	102.2	64	64	65	65	65	66	66	66	66	67	68	70	70	71	69	72	73	73	73	73	71	71	70	69	73	73	73	73	70	70
29/F	105.7	64	64	65	65	65	66	66	66	66	67	68	70	70	71	69	72	73	73	72	73	71	71	70	69	73	73	73	73	69	70
30/F	109.2	64	64	65	65	65	66	66	66	66	67	68	70	70	70	69	72	73	73	72	73	71	71	70	69	73	73	73	73	69	70
Max Noise Level		65	65	66	66	66	67	67	67	67	68	70	74	73	74	74	76	77	77	76	76	74	74	74	72	76	76	76	76	73	74
Exceedance			0		0		0		0		0					28					27				28				28		

Floor	mPD	N2-61	N2-62	N2-63	N2-64	N2-65	N2-66	N2-67	N2-68	N2-69	N2-70	N2-71	N2-72	N2-73	N2-74	N2-75	N2-76	N2-77	N2-78	N2-79	N2-80	N2-81	N2-82	N2-83	N2-84	N2-85
3/F	23.0	61	61	75	75	75	75	70	70	69	70	67	67	67	69	71	74	77	64	77	77	66	67	77	77	66
4/F	26.1	69	69	77	77	77	77	74	75	74	75	72	72	72	74	76	77	77	70	77	77	71	72	77	77	72
5/F	29.3	71	71	77	77	77	77	75	76	76	76	73	74	74	75	77	77	77	70	77	77	72	72	77	77	72
6/F	32.4	72	72	77	77	77	77	75	76	76	76	74	74	74	75	76	77	77	70	77	77	71	72	77	77	72
7/F	35.6	71	72	76	76	77	77	75	76	76	76	74	74	74	75	76	76	77	70	76	77	71	72	77	77	72
8/F	38.7	71	71	76	76	76	76	75	75	76	76	74	74	74	75	76	76	76	70	76	76	71	72	77	77	72
9/F	41.9	71	71	76	76	76	76	75	75	75	76	74	74	74	75	76	76	76	70	76	76	71	71	76	76	72
10/F	45.0	71	71	76	76	76	76	75	75	75	75	74	74	74	75	76	76	76	70	76	76	71	71	76	76	71
11/F	48.2	70	71	76	76	76	76	75	75	75	75	73	74	74	74	75	75	76	69	76	76	71	71	76	76	71
12/F	51.3	70	71	75	76	76	76	74	75	75	75	73	73	73	74	75	75	76	69	75	76	70	71	76	76	71
13/F	54.5	70	70	75	75	75	75	74	75	75	75	73	73	73	74	75	75	76	69	75	76	70	71	76	76	71
14/F	57.6	70	70	75	75	75	75	74	74	74	75	73	73	73	74	75	75	75	69	75	75	70	70	76	76	71
15/F	60.8	70	70	75	75	75	75	74	74	74	74	73	73	73	74	75	75	75	69	75	75	70	70	75	75	71
16/F	63.9	69	70	75	75	75	75	74	74	74	74	73	73	73	73	74	74	75	69	75	75	70	70	75	75	70
17/F	67.1	69	70	75	75	75	75	74	74	74	74	72	73	72	73	74	74	75	68	75	75	70	70	75	75	70
18/F	70.4	69	69	75	75	75	75	74	74	74	74	72	72	72	73	74	74	75	68	75	75	69	70	75	75	70
19/F	73.5	69	69	74	74	74	75	73	74	74	74	72	72	72	73	74	74	75	68	74	75	69	70	75	75	70
20/F	76.7	69	69	74	74	74	74	73	73	74	74	72	72	72	73	74	74	74	68	74	74	69	70	75	75	70
21/F	79.8	69	69	74	74	74	74	73	73	73	74	72	72	72	73	74	74	74	68	74	74	69	69	75	75	70
22/F	83.0	68	69	74	74	74	74	73	73	73	73	72	72	72	72	73	74	74	68	74	74	69	69	74	74	70
23/F	86.1	68	69	74	74	74	74	73	73	73	73	72	72	72	72	73	73	74	68	74	74	69	69	74	74	69
24/F	89.3	68	69	74	74	74	74	73	73	73	73	71	72	71	72	73	73	74	68	74	74	69	69	74	74	69
25/F	92.4	68	68	74	74	74	74	73	73	73	73	71	72	71	72	73	73	74	67	74	74	68	69	74	74	69
26/F	95.6	68	68	73	74	74	74	73	73	73	73	71	71	71	72	73	73	74	67	73	74	68	69	74	74	69
27/F	98.7	68	68	73	73	73	73	72	73	73	73	71	71	71	72	73	73	74	67	73	74	68	69	74	74	69
28/F	102.2	68	68	73	73	73	73	72	72	73	73	71	71	71	72	73	73	73	67	73	73	68	69	74	74	69
29/F	105.7	67	68	73	73	73	73	72	72	72	73	71	71	71	71	73	73	73	67	73	73	68	69	74	74	69
30/F	109.2	67	68	73	73	73	73	72	72	72	72	71	71	--	--	--	--	--	--	--	--	--	--	--	--	--
Max Noise Level		72	72	77	77	77	77	75	76	76	76	74	74	74	75	77	77	77	70	77	77	72	72	77	77	72
Exceedance			28				28				27				27					27				27		

Total no. of Flats:	1068
Total no. of Exceedance:	288
Compliance Level:	73%
Max. Noise Level for Tower:	77

Noted:
Noise level exceed stardand of 70 dB(A)

17/F serves as a refuge floor with no noise sensitive use

Predicted Road Traffic Noise at Selected Sensitive Receivers
Base Case (PM Peak Flow)

Tower 1

Floor	mPD	N1-01	N1-02	N1-03	N1-04	N1-05	N1-06	N1-07	N1-08	N1-09	N1-10	N1-11	N1-12	N1-13	N1-14	N1-15	N1-16	N1-17	N1-18	N1-19	N1-20
3/F	23.0	**73**	65	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	65	65
4/F	26.1	**73**	**71**	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	67
5/F	29.3	**72**	**72**	70	69	69	69	69	69	70	70	70	70	70	70	70	70	70	70	70	67
6/F	32.4	**72**	**72**	**71**	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	67
7/F	35.6	**72**	**71**	**71**	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	67
8/F	38.7	**71**	**71**	**71**	70	70	70	70	70	70	70	70	70	70	70	70	70	70	69	69	67
9/F	41.9	**71**	**71**	70	70	70	70	69	69	70	69	69	70	69	69	69	69	69	69	69	67
10/F	45.0	**71**	**71**	70	70	70	70	69	69	69	69	69	69	69	69	69	69	69	69	69	67
11/F	48.2	**71**	**71**	70	70	70	69	69	69	69	69	69	69	69	69	69	69	69	69	69	67
12/F	51.3	**71**	70	70	70	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	67
13/F	54.5	**71**	70	70	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	67
14/F	57.6	**71**	70	70	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	66
15/F	60.8	70	70	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	66
16/F	63.9	70	70	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	68	68	66
17/F	67.1	70	70	69	69	69	69	69	69	69	69	69	69	69	69	68	68	68	68	68	66
18/F	70.4	70	69	69	69	69	69	69	68	68	68	68	68	68	68	68	68	68	68	68	66
19/F	73.5	70	69	69	69	69	68	68	68	68	68	68	68	68	68	68	68	68	68	68	66
20/F	76.7	70	69	69	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	66
21/F	79.8	70	69	69	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	66
22/F	83.0	70	69	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	65
23/F	86.1	69	69	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	65
24/F	89.3	69	69	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	65
25/F	92.4	69	69	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	67	65
26/F	95.6	69	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	67	67	67	65
27/F	98.7	69	68	68	68	68	68	68	68	68	68	68	68	68	68	67	67	67	67	67	65
28/F	102.2	69	68	68	68	68	68	68	68	68	67	67	67	67	67	67	67	67	67	67	65
29/F	105.7	69	68	68	68	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	65
30/F	109.2	69	68	68	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	65
Max Noise Level		**73**	**72**	**71**	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	67
Exceedance		12				0			0			0			0			0			

Floor	mPD	N1-21	N1-22	N1-23	N1-24	N1-25	N1-26	N1-27	N1-28	N1-29	N1-30	N1-31	N1-32	N1-33	N1-34	N1-35	N1-36	N1-37	N1-38	N1-39	N1-40	N1-41	N1-42	N1-43	N1-44
3/F	23.0	63	46	47	47	47	48	48	48	48	48	48	48	48	47	47	47	47	47	47	47	47	47	48	52
4/F	26.1	65	47	48	48	48	49	49	49	49	49	49	49	49	48	48	47	47	47	47	47	47	48	49	56
5/F	29.3	65	47	49	49	50	50	50	50	51	51	51	51	51	50	49	48	48	48	48	48	48	49	51	57
6/F	32.4	65	48	51	51	52	52	53	53	53	54	54	54	53	52	50	50	50	49	48	49	49	50	54	61
7/F	35.6	65	49	55	56	56	57	57	57	58	58	58	58	58	56	53	52	52	50	49	49	50	51	58	64
8/F	38.7	65	52	57	58	59	60	60	60	61	61	61	61	61	59	55	54	54	51	50	50	51	53	59	64
9/F	41.9	65	55	60	60	61	61	61	62	62	62	62	62	62	60	57	56	56	53	51	52	52	54	60	65
10/F	45.0	66	58	61	61	62	62	62	62	63	63	63	62	62	61	58	57	57	54	53	54	54	56	61	65
11/F	48.2	66	59	62	62	62	63	63	63	63	63	63	63	62	61	59	58	58	56	54	55	56	58	62	66
12/F	51.3	66	60	62	63	63	63	63	63	63	64	64	63	63	62	59	59	59	57	56	57	58	59	62	66
13/F	54.5	66	60	63	63	63	63	64	64	64	64	64	63	63	62	60	60	60	58	57	58	59	60	63	66
14/F	57.6	66	60	63	63	63	64	64	64	64	64	64	64	63	62	61	60	60	59	58	59	60	61	64	67
15/F	60.8	66	60	63	63	64	64	64	64	64	64	64	64	64	63	61	61	61	60	59	60	61	62	64	67
16/F	63.9	66	60	63	63	64	64	64	64	64	64	64	64	64	63	62	61	61	61	60	61	62	63	64	67
17/F	67.1	65	61	63	63	64	64	64	64	64	65	65	64	64	63	62	62	62	61	61	62	62	63	65	67
18/F	70.4	65	61	63	63	64	64	64	64	64	65	65	64	64	63	62	62	62	62	61	62	62	63	65	67
19/F	73.5	65	61	63	63	64	64	64	64	64	65	65	64	64	64	63	62	62	62	62	62	63	63	65	67
20/F	76.7	65	61	63	63	64	64	64	64	64	65	65	65	64	64	63	62	63	62	62	62	63	64	65	67
21/F	79.8	65	61	63	63	64	64	64	64	65	65	65	65	64	64	63	63	63	62	62	62	63	64	65	67
22/F	83.0	65	61	63	63	64	64	64	64	65	65	65	65	64	64	63	63	63	62	62	63	63	64	65	67
23/F	86.1	65	61	63	63	64	64	64	64	65	65	65	65	64	64	63	63	63	63	62	63	63	64	65	67
24/F	89.3	65	61	63	63	64	64	64	64	64	65	65	65	64	64	63	63	63	63	62	63	63	64	65	67
25/F	92.4	65	61	63	63	64	64	64	64	64	65	65	64	64	64	63	63	63	63	62	63	63	64	65	67
26/F	95.6	65	61	63	63	64	64	64	64	64	65	65	64	64	64	63	63	63	63	62	63	63	64	65	67
27/F	98.7	65	61	63	63	64	64	64	64	64	65	65	64	64	64	63	63	63	63	62	63	63	64	65	67
28/F	102.2	65	61	63	63	64	64	64	64	64	65	65	64	64	64	63	63	63	63	62	63	63	64	65	67
29/F	105.7	65	61	63	63	64	64	64	64	64	65	65	64	64	64	63	63	63	63	62	63	63	64	65	67
30/F	109.2	65	61	63	63	64	64	64	64	64	65	65	64	64	64	63	63	63	63	62	63	63	64	65	67
Max Noise Level		66	61	63	63	64	64	64	64	65	65	65	65	64	64	63	63	63	63	62	63	63	64	65	67
Exceedance		0				0			0			0			0			0			0			0	

Predicted Road Traffic Noise at Selected Sensitive Receivers
Base Case (PM Peak Flow)

Tower 2

Floor	mPD	N2-01	N2-02	N2-03	N2-04	N2-05	N2-06	N2-07	N2-08	N2-09	N2-10	N2-11	N2-12	N2-13	N2-14	N2-15	N2-16	N2-17	N2-18	N2-19	N2-20	N2-21	N2-22	N2-23	N2-24	N2-25	N2-26	N2-27	N2-28	N2-29	N2-30
3/F	23.0	50	52	54	54	53	53	53	51	51	53	53	53	53	53	53	54	54	54	55	55	55	55	55	56	56	56	57	58	58	59
4/F	26.1	53	54	55	56	56	55	55	53	53	54	54	54	54	54	55	55	56	56	56	56	56	56	57	57	58	58	58	59	59	60
5/F	29.3	56	56	57	57	57	56	56	54	54	55	55	55	55	55	56	56	57	57	57	57	57	58	58	59	59	59	59	60	60	61
6/F	32.4	57	57	58	57	57	57	56	55	55	56	56	56	56	56	56	57	58	58	58	58	58	58	59	59	59	60	60	61	61	62
7/F	35.6	58	58	58	58	57	57	57	55	55	56	56	56	56	57	57	58	58	58	58	58	58	59	59	60	60	60	61	61	62	63
8/F	38.7	59	59	59	58	58	58	57	56	56	57	57	57	57	57	58	58	58	58	58	59	59	59	60	61	61	61	62	62	63	63
9/F	41.9	61	59	59	59	59	58	58	57	57	58	58	57	58	58	58	58	58	58	59	59	59	59	60	61	62	62	63	63	63	64
10/F	45.0	61	60	60	60	59	59	58	57	57	58	58	58	58	58	58	59	59	59	59	59	59	60	61	61	62	63	63	63	64	64
11/F	48.2	62	61	60	60	60	59	59	58	58	58	58	58	58	58	59	59	59	59	59	59	60	60	61	61	62	63	63	63	64	64
12/F	51.3	62	61	61	60	60	60	59	58	58	59	59	59	59	59	59	59	59	59	59	59	60	60	61	61	62	63	63	63	64	64
13/F	54.5	62	62	61	61	60	60	59	59	58	59	59	59	59	59	59	59	59	59	59	59	60	60	61	61	62	63	63	63	64	64
14/F	57.6	63	62	61	61	60	60	60	59	59	59	59	59	59	59	59	59	59	59	59	60	60	60	61	61	62	62	63	63	64	64
15/F	60.8	63	62	61	61	60	60	60	59	59	59	59	59	59	59	59	59	59	59	59	60	60	60	61	61	62	62	63	63	64	64
16/F	63.9	63	62	61	61	60	60	60	59	59	60	60	59	59	59	59	59	59	59	59	60	60	60	61	61	62	62	63	63	64	64
17/F	67.1	63	62	61	61	61	60	60	59	59	60	60	60	59	59	59	59	59	59	59	60	60	60	61	61	62	62	63	63	64	64
18/F	70.4	63	62	61	61	61	60	60	59	59	60	60	60	59	59	59	59	59	59	60	60	60	60	61	61	62	62	63	63	63	64
19/F	73.5	63	62	61	61	61	60	60	59	59	60	60	60	60	59	59	59	59	59	60	60	60	60	61	61	62	62	63	63	63	64
20/F	76.7	63	62	61	61	61	60	60	59	59	60	60	60	60	60	60	59	59	59	60	60	60	60	61	61	62	62	63	63	63	64
21/F	79.8	63	62	61	61	61	60	60	59	59	60	60	60	60	60	60	60	59	59	60	60	60	60	61	61	62	62	63	63	63	64
22/F	83.0	63	62	61	61	61	60	60	59	59	60	60	60	60	60	60	60	59	59	60	60	60	60	61	61	62	62	62	63	63	64
23/F	86.1	63	62	61	61	61	60	60	59	59	60	60	60	60	60	60	60	59	59	60	60	60	60	61	61	62	62	62	63	63	64
24/F	89.3	63	62	61	61	61	60	60	59	59	60	60	60	60	60	60	60	59	59	60	60	60	60	61	61	62	62	62	63	63	64
25/F	92.4	62	62	61	61	60	60	60	59	59	60	60	60	60	60	60	60	59	59	60	60	60	60	61	61	62	62	62	63	63	64
26/F	95.6	62	62	61	61	60	60	60	59	59	60	60	60	60	59	59	60	59	59	60	60	60	60	61	61	62	62	62	63	63	63
27/F	98.7	62	62	61	61	60	60	60	59	59	60	60	60	60	59	59	59	59	59	60	60	60	60	61	61	62	62	62	63	63	63
28/F	102.2	62	62	61	61	61	60	60	59	59	60	60	60	60	59	59	59	59	59	60	60	60	60	60	61	61	62	62	63	63	63
29/F	105.7	--	--	--	--	--	--	--	--	60	60	60	60	60	60	60	60	60	59	60	60	60	60	60	61	61	62	62	63	63	63
30/F	109.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	60	60	60	60	60	61	61	62	62	62	63	63	63
Max Noise Level		63	62	61	61	61	60	60	59	60	60	60	60	60	60	60	60	60	60	60	60	60	60	61	61	62	63	63	63	64	64
Exceedance			0			0		0			0			0			0			0			0			0			0		0

Floor	mPD	N2-31	N2-32	N2-33	N2-34	N2-35	N2-36	N2-37	N2-38	N2-39	N2-40	N2-41	N2-42	N2-43	N2-44	N2-45	N2-46	N2-47	N2-48	N2-49	N2-50	N2-51	N2-52	N2-53	N2-54	N2-55	N2-56	N2-57	N2-58	N2-59	N2-60
3/F	23.0	59	60	61	61	62	63	64	65	66	67	69	73	69	70	67	70	75	74	69	69	65	66	63	60	70	70	71	71	64	65
4/F	26.1	61	62	62	63	64	65	65	66	67	68	69	73	72	73	72	74	76	76	74	75	70	71	70	67	75	75	75	75	70	71
5/F	29.3	62	63	63	64	65	65	66	66	67	68	69	73	72	73	73	75	76	75	75	75	72	73	72	70	75	75	75	76	71	72
6/F	32.4	63	64	64	65	65	65	66	66	67	68	69	73	73	73	73	74	75	75	75	75	73	73	72	71	75	75	75	75	72	72
7/F	35.6	63	64	64	65	65	65	66	66	67	68	69	73	72	73	72	74	75	75	74	75	73	73	72	71	75	75	75	75	72	72
8/F	38.7	63	64	64	65	65	65	66	66	67	68	69	72	72	73	72	74	75	75	74	75	72	73	72	71	75	75	75	75	72	72
9/F	41.9	64	64	65	65	65	66	66	66	67	68	69	72	72	73	72	74	75	75	74	75	72	73	72	71	75	75	75	75	71	72
10/F	45.0	64	65	65	65	66	66	66	66	67	68	69	72	72	72	72	74	75	75	74	74	72	73	72	71	75	75	75	75	71	72
11/F	48.2	65	65	65	66	66	66	66	67	67	68	69	72	71	72	71	73	75	74	74	74	72	73	72	71	74	75	75	75	71	72
12/F	51.3	65	65	65	66	66	66	66	67	67	68	69	72	71	72	71	73	74	74	74	74	72	73	72	71	74	74	74	75	71	71
13/F	54.5	65	65	65	66	66	66	66	67	67	68	69	72	71	72	71	73	74	74	74	74	72	73	71	70	74	74	74	74	71	71
14/F	57.6	65	65	65	66	66	66	66	67	67	68	69	71	71	72	71	73	74	74	73	74	72	72	71	70	74	74	74	74	70	71
15/F	60.8	65	65	65	65	66	66	66	67	67	67	68	71	71	71	70	73	74	74	73	74	72	72	71	70	74	74	74	74	70	71
16/F	63.9	64	65	65	65	66	66	66	66	67	67	68	71	71	71	70	73	74	74	73	74	71	72	71	70	74	74	74	74	70	71
17/F	67.1	64	65	65	65	66	66	66	66	67	67	68	71	70	71	70	72	74	74	73	73	71	72	71	70	74	74	74	74	70	70
18/F	70.4	64	65	65	65	66	66	66	66	67	67	68	71	70	71	70	72	74	73	73	73	71	72	70	69	73	73	74	74	70	70
19/F	73.5	64	65	65	65	66	66	66	66	67	67	68	71	70	71	70	72	73	73	73	73	71	72	70	69	73	73	73	73	70	70
20/F	76.7	64	65	65	65	65	66	66	66	66	67	68	70	70	71	70	72	73	73	73	73	71	72	70	69	73	73	73	73	69	70
21/F	79.8	64	65	65	65	65	66	66	66	66	67	68	70	70	71	69	72	73	73	73	73	71	71	70	69	73	73	73	73	69	70
22/F	83.0	64	64	65	65	65	66	66	66	66	67	68	70	70	70	69	72	73	73	72	73	71	71	70	69	73	73	73	73	69	70
23/F	86.1	64	64	65	65	65	66	66	66	66	67	68	70	69	70	69	72	73	73	72	73	70	71	70	69	73	73	73	73	69	70
24/F	89.3	64	64	65	65	65	66	66	66	66	67	68	70	69	70	69	71	73	73	72	73	70	71	70	69	73	73	73	73	69	69
25/F	92.4	64	64	64	65	65	66	66	66	66	67	67	70	69	70	69	71	73	73	72	72	70	71	69	68	73	73	73	73	69	69
26/F	95.6	64	64	64	65	65	65	66	66	66	67	67	70	69	70	69	71	73	72	72	72	70	71	69	68	72	73	73	73	69	69
27/F	98.7	64	64	64	65	65	65	66	66	66	67	67	70	69	70	69	71	73	72	72	72	70	71	69	68	72	72	73	73	68	69
28/F	102.2	64	64	64	65	65	65	65	66	66	66	67	69	69	70	69	71	72	72	72	72	70	71	69	68	72	72	72	72	68	69
29/F	105.7	64	64	64	65	65	65	65	66	66	66	67	69	69	70	68	71	72	72	72	72	70	71	69	68	72	72	72	72	68	69
30/F	109.2	64	64	64	64	65	65	65	66	66	66	67	69	69	69	68	71	72	72	72	72	70	70	69	68	72	72	72	72	68	69
Max Noise Level		65	65	65	66	66	66	66	67	67	68	69	73	73	73	73	75	76	76	75	75	73	73	72	71	75	75	75	76	72	72
Exceedance			0		0		0		0		0					28					27				27				28		

Floor	mPD	N2-61	N2-62	N2-63	N2-64	N2-65	N2-66	N2-67	N2-68	N2-69	N2-70	N2-71	N2-72	N2-73	N2-74	N2-75	N2-76	N2-77	N2-78	N2-79	N2-80	N2-81	N2-82	N2-83	N2-84	N2-85
3/F	23.0	59	60	74	74	74	74	69	70	69	69	66	66	66	68	71	74	77	65	76	77	67	67	77	77	66
4/F	26.1	67	67	76	76	76	76	74	74	74	74	71	72	71	73	75	76	77	70	77	77	71	72	77	77	72
5/F	29.3	70	70	76	76	76	76	75	75	75	75	73	73	72	74	76	76	77	70	76	77	71	72	77	77	72
6/F	32.4	70	70	76	76	76	76	75	75	75	75	73	73	73	74	76	76	77	70	76	77	71	72	77	77	72
7/F	35.6	70	70	76	76	76	76	75	75	75	75	73	74	73	74	76	76	76	70	76	76	71	72	77	77	72
8/F	38.7	70	70	75	75	76	76	75	75	75	75	73	73	73	74	75	75	76	70	76	76	71	71	76	76	72
9/F	41.9	70	70	75	75	75	75	74	75	75	75	73	73	73	74	75	75	76	70	76	76	71	71	76	76	72
10/F	45.0	69	70	75	75	75	75	74	74	75	75	73	73	73	74	75	75	76	70	76	76	71	71	76	76	71
11/F	48.2	69	70	75	75	75	75	74	74	74	75	73	73	73	74	75	75	76	69	75	76	70	71	76	76	71
12/F	51.3	69	69	75	75	75	75	74	74	74	74	73	73	73	73	74	75	76	69	75	75	70	71	76	76	71
13/F	54.5	69	69	75	75	75	75	74	74	74	74	72	73	72	73	74	74	75	69	75	75	70	71	76	76	71
14/F	57.6	69	69	74	74	75	75	74	74	74	74	72	73	72	73	74	74	75	69	75	75	70	71	75	75	71
15/F	60.8	68	69	74	74	74	74	73	74	74	74	72	72	72	73	74	74	75	69	75	75	70	70	75	75	71
16/F	63.9	68	69	74	74	74	74	73	73	74	74	72	72	72	73	74	74	75	69	75	75	70	70	75	75	71
17/F	67.1	68	68	74	74	74	74	73	73	73	74	72	72	72	72	74	74	75	69	75	75	69	70	75	75	70
18/F	70.4	68	68	74	74	74	74	73	73	73	73	72	72	71	72	73	74	75	68	74	75	69	70	75	75	70
19/F	73.5	68	68	74	74	74	74	73	73	73	73	72	72	71	72	73	73	74	68	74	74	69	70	75	75	70
20/F	76.7	67	68	74	74	74	74	73	73	73	73	71	72	71	72	73	73	74	68	74	74	69	70	74	75	70
21/F	79.8	67	68	73	73	74	74	73	73	73	73	71	72	71	72	73	73	74	68	74	74	69	70	74	74	70
22/F	83.0	67	68	73	73	73	73	72	73	73	73	71	71	71	72	73	73	74	68	74	74	69	69	74	74	70
23/F	86.1	67	67	73	73	73	73	72	73	73	73	71	71	71	72	73	73	74	68	74	74	69	69	74	74	70
24/F	89.3	67	67	73	73	73	73	72	72	72	73	71	71	71	71	73	73	74	68	74	74	68	69	74	74	69
25/F	92.4	67	67	73	73	73	73	72	72	72	72	71	71	70	71	73	73	74	68	73	74	68	69	74	74	69
26/F	95.6	67	67	73	73	73	73	72	72	72	72	71	71	70	71	72	72	74	67	73	74	68	69	74	74	69
27/F	98.7	66	67	73	73	73	73	72	72	72	72	71	71	70	71	72	72	73	67	73	73	68	69	74	74	69
28/F	102.2	66	67	73	73	73	73	72	72	72	72	70	71	70	71	72	72	73	67	73	73	68	69	74	74	69
29/F	105.7	66	67	72	73	73	73	72	72	72	72	70	71	70	71	72	72	73	67	73	73	68	69	73	73	69
30/F	109.2	66	66	72	72	72	73	72	72	72	72	70	70	--	--	--	--	--	--	--	--	--	--	--	--	--
Max Noise Level		70	70	76	76	76	76	75	75	75	75	73	74	73	74	76	76	77	70	77	77	71	72	77	77	72
Exceedance			28			28				27					27				27				27			

Total no. of Flats:	1068
Total no. of Exceedance:	286
Compliance Level:	73%
Max. Noise Level for Tower:	77

Noted:

Noise level exceed stardand of 70 dB(A)

17/F serves as a refuge floor with no noise sensitive use

Predicted Road Traffic Noise at Selected Sensitive Receivers
Base Case (Combined Case)

Tower 1

Floor	mPD	N1-01	N1-02	N1-03	N1-04	N1-05	N1-06	N1-07	N1-08	N1-09	N1-10	N1-11	N1-12	N1-13	N1-14	N1-15	N1-16	N1-17	N1-18	N1-19	N1-20
3/F	23.0	**73**	66	65	65	65	65	65	65	65	65	65	65	65	65	66	65	66	66	66	66
4/F	26.1	**73**	**72**	70	69	69	69	70	70	70	70	70	70	70	70	70	70	70	70	70	68
5/F	29.3	**73**	**72**	**71**	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	68
6/F	32.4	**72**	**72**	**71**	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	68
7/F	35.6	**72**	**72**	**71**	**71**	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	68
8/F	38.7	**72**	**72**	**71**	**71**	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	68
9/F	41.9	**71**	**71**	**71**	**71**	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	68
10/F	45.0	**71**	**71**	**71**	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	68
11/F	48.2	**71**	**71**	**71**	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	68
12/F	51.3	**71**	**71**	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	68
13/F	54.5	**71**	**71**	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	67
14/F	57.6	**71**	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	69	69	67
15/F	60.8	**71**	70	70	70	70	70	70	69	69	69	69	69	69	69	69	69	69	69	69	67
16/F	63.9	70	70	70	70	70	69	69	69	69	69	69	69	69	69	69	69	69	69	69	67
17/F	67.1	70	70	70	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	67
18/F	70.4	70	70	70	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	67
19/F	73.5	70	70	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	67
20/F	76.7	70	70	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	67
21/F	79.8	70	70	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	66
22/F	83.0	70	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	68	66
23/F	86.1	70	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	68	68	66
24/F	89.3	70	69	69	69	69	69	69	69	69	69	69	69	69	69	68	68	68	68	68	66
25/F	92.4	70	69	69	69	69	69	69	69	69	68	69	69	68	68	68	68	68	68	68	66
26/F	95.6	69	69	69	69	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	66
27/F	98.7	69	69	69	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	66
28/F	102.2	69	69	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	66
29/F	105.7	69	69	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	66
30/F	109.2	69	69	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	66
Max Noise Level		**73**	**72**	**71**	**71**	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	68
Exceedance		13				0			0			0			0			0			

Floor	mPD	N1-21	N1-22	N1-23	N1-24	N1-25	N1-26	N1-27	N1-28	N1-29	N1-30	N1-31	N1-32	N1-33	N1-34	N1-35	N1-36	N1-37	N1-38	N1-39	N1-40	N1-41	N1-42	N1-43	N1-44
3/F	23.0	64	47	48	48	48	48	48	48	48	48	48	48	48	48	47	47	47	47	47	47	47	47	48	52
4/F	26.1	66	47	48	48	49	49	49	49	49	49	49	49	49	48	48	48	48	47	47	47	47	48	49	56
5/F	29.3	66	47	50	50	50	50	51	51	51	51	51	51	51	50	49	48	48	48	48	48	48	49	51	57
6/F	32.4	66	48	52	52	53	53	53	53	54	54	54	54	53	52	50	50	50	49	48	49	49	50	54	61
7/F	35.6	66	49	56	56	57	58	58	58	58	58	59	58	58	56	53	52	52	50	49	49	50	51	58	64
8/F	38.7	66	52	58	59	60	60	61	61	61	61	61	61	61	59	55	54	54	51	50	50	51	53	59	65
9/F	41.9	66	55	60	61	61	62	62	62	62	63	63	62	62	60	57	56	56	53	51	52	52	54	60	65
10/F	45.0	66	58	62	62	62	62	63	63	63	63	63	63	62	61	58	57	57	54	53	54	54	56	61	65
11/F	48.2	66	59	62	63	63	63	63	63	63	63	64	63	62	61	59	58	58	56	54	55	56	58	62	66
12/F	51.3	66	60	63	63	63	63	63	64	64	64	64	63	63	62	59	59	59	57	56	57	58	59	62	66
13/F	54.5	66	60	63	63	63	64	64	64	64	64	64	63	63	62	60	60	60	58	57	58	59	60	63	66
14/F	57.6	66	60	63	63	64	64	64	64	64	64	64	64	63	62	61	60	60	59	58	59	60	61	64	67
15/F	60.8	66	60	63	63	64	64	64	64	64	64	64	64	64	63	61	61	61	60	59	60	61	62	64	67
16/F	63.9	66	60	63	63	64	64	64	64	64	64	64	64	64	63	62	61	61	61	60	61	62	63	64	67
17/F	67.1	66	61	63	63	64	64	64	64	64	65	65	64	64	63	62	62	62	61	61	62	62	63	65	67
18/F	70.4	66	61	63	63	64	64	64	64	64	65	65	64	64	63	62	62	62	62	61	62	62	63	65	67
19/F	73.5	66	61	63	64	64	64	64	64	64	65	65	64	64	64	63	62	62	62	62	62	63	63	65	67
20/F	76.7	66	61	63	64	64	64	64	64	64	65	65	65	64	64	63	62	63	62	62	62	63	64	65	67
21/F	79.8	66	61	63	64	64	64	64	64	65	65	65	65	64	64	63	63	63	62	62	62	63	64	65	67
22/F	83.0	66	61	63	64	64	64	64	64	65	65	65	65	64	64	63	63	63	62	62	63	63	64	65	67
23/F	86.1	66	61	63	64	64	64	64	64	65	65	65	65	64	64	63	63	63	63	62	63	63	64	65	67
24/F	89.3	66	61	63	64	64	64	64	64	65	65	65	65	64	64	63	63	63	63	62	63	63	64	65	67
25/F	92.4	66	61	63	64	64	64	64	64	64	65	65	64	64	64	63	63	63	63	62	63	63	64	65	67
26/F	95.6	66	61	63	64	64	64	64	64	64	65	65	64	64	64	63	63	63	63	62	63	63	64	65	67
27/F	98.7	65	61	63	64	64	64	64	64	64	65	65	64	64	64	63	63	63	63	62	63	63	64	65	67
28/F	102.2	65	61	63	64	64	64	64	64	64	65	65	64	64	64	63	63	63	63	62	63	63	64	65	67
29/F	105.7	65	61	63	64	64	64	64	64	64	65	65	64	64	64	63	63	63	63	62	63	63	64	65	67
30/F	109.2	65	61	63	64	64	64	64	64	64	65	65	64	64	64	63	63	63	63	62	63	63	64	65	67
Max Noise Level		66	61	63	64	64	64	64	64	65	65	65	65	64	64	63	63	63	63	62	63	63	64	65	67
Exceedance		0				0			0			0			0			0			0			0	

Predicted Road Traffic Noise at Selected Sensitive Receivers
Base Case (Combined Case)

Tower 2

Floor	mPD	N2-01	N2-02	N2-03	N2-04	N2-05	N2-06	N2-07	N2-08	N2-09	N2-10	N2-11	N2-12	N2-13	N2-14	N2-15	N2-16	N2-17	N2-18	N2-19	N2-20	N2-21	N2-22	N2-23	N2-24	N2-25	N2-26	N2-27	N2-28	N2-29	N2-30
3/F	23.0	52	53	55	55	55	54	54	53	52	54	54	53	53	54	54	54	54	55	56	56	55	56	56	56	57	57	58	58	59	59
4/F	26.1	54	56	57	57	57	57	56	54	54	55	55	55	55	55	55	56	56	57	57	57	57	57	57	58	58	59	59	60	60	61
5/F	29.3	57	58	59	58	58	58	57	55	55	56	56	56	56	56	56	57	57	58	58	58	58	58	59	59	59	59	60	61	61	62
6/F	32.4	59	59	59	59	58	58	58	56	56	57	57	56	56	57	57	58	58	58	58	59	59	59	59	59	60	60	61	61	62	62
7/F	35.6	59	59	59	59	59	59	58	56	56	57	57	57	57	57	58	58	58	58	59	59	59	59	60	60	60	61	61	62	62	63
8/F	38.7	60	60	60	60	59	59	58	57	57	58	58	58	58	58	58	58	59	59	59	59	59	59	60	61	62	62	62	63	63	63
9/F	41.9	62	61	61	60	60	59	59	58	57	58	58	58	58	58	58	59	59	59	59	59	60	60	61	62	62	63	63	63	64	64
10/F	45.0	62	61	61	61	60	60	59	58	58	59	59	58	58	58	59	59	59	59	59	60	60	60	61	62	63	63	63	64	64	64
11/F	48.2	63	62	61	61	61	60	60	59	58	59	59	59	59	59	59	59	59	59	59	60	60	60	61	62	63	63	64	64	64	65
12/F	51.3	63	62	62	61	61	60	60	59	59	59	59	59	59	59	59	59	59	59	60	60	60	60	61	62	63	63	64	64	64	65
13/F	54.5	63	62	62	61	61	61	60	59	59	60	59	59	59	59	59	59	59	59	60	60	60	60	61	62	63	63	64	64	64	65
14/F	57.6	63	62	62	62	61	61	60	59	59	60	60	59	59	59	59	59	59	59	60	60	60	60	61	62	63	63	63	64	64	65
15/F	60.8	63	62	62	62	61	61	60	60	59	60	60	60	60	59	59	60	60	59	60	60	60	60	61	62	62	63	63	64	64	65
16/F	63.9	63	62	62	62	61	61	61	60	60	60	60	60	60	60	60	60	60	59	60	60	60	60	61	62	62	63	63	64	64	65
17/F	67.1	63	62	62	62	61	61	61	60	60	60	60	60	60	60	60	60	60	59	60	60	60	60	61	62	62	63	63	64	64	65
18/F	70.4	63	62	62	62	61	61	61	60	60	60	60	60	60	60	60	60	60	59	60	60	60	60	61	62	62	63	63	64	64	64
19/F	73.5	63	62	62	62	61	61	61	60	60	60	60	60	60	60	60	60	60	59	60	60	60	60	61	62	62	63	63	64	64	64
20/F	76.7	63	62	62	62	61	61	61	60	60	60	60	60	60	60	60	60	60	59	60	60	60	60	61	62	62	63	63	64	64	64
21/F	79.8	63	62	62	62	61	61	61	60	60	60	60	60	60	60	60	60	60	59	60	60	60	60	61	62	62	63	63	64	64	64
22/F	83.0	63	62	62	62	61	61	61	60	60	60	60	60	60	60	60	60	60	59	60	60	60	60	61	62	62	63	63	63	64	64
23/F	86.1	63	62	62	62	61	61	61	60	60	60	60	60	60	60	60	60	60	59	60	60	60	60	61	61	62	62	63	63	64	64
24/F	89.3	63	62	62	62	61	61	61	60	60	60	60	60	60	60	60	60	60	59	60	60	60	60	61	61	62	62	63	63	64	64
25/F	92.4	63	62	62	62	61	61	60	60	60	60	60	60	60	60	60	60	60	59	60	60	60	60	61	61	62	62	63	63	64	64
26/F	95.6	63	62	62	62	61	61	60	60	60	60	60	60	60	60	60	60	60	59	60	60	60	60	61	61	62	62	63	63	63	64
27/F	98.7	63	62	62	62	61	61	60	60	60	60	60	60	60	60	60	60	60	59	60	60	60	60	61	61	62	62	63	63	63	64
28/F	102.2	63	62	62	62	61	61	61	60	60	60	60	60	60	60	60	60	60	59	60	60	60	60	61	61	62	62	63	63	63	64
29/F	105.7	--	--	--	--	--	--	--	--	60	60	60	60	60	60	60	60	60	59	60	60	60	60	61	61	62	62	63	63	63	64
30/F	109.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	60	60	60	60	60	61	61	62	62	63	63	63	64
Max Noise Level		63	62	62	62	61	61	61	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	61	62	63	63	64	64	64	65
Exceedance			0			0		0			0			0			0			0			0			0			0		0

Floor	mPD	N2-31	N2-32	N2-33	N2-34	N2-35	N2-36	N2-37	N2-38	N2-39	N2-40	N2-41	N2-42	N2-43	N2-44	N2-45	N2-46	N2-47	N2-48	N2-49	N2-50	N2-51	N2-52	N2-53	N2-54	N2-55	N2-56	N2-57	N2-58	N2-59	N2-60
3/F	23.0	60	61	61	62	63	64	64	65	66	67	69	74	70	71	68	71	76	75	70	70	65	66	65	62	71	71	71	72	65	66
4/F	26.1	61	62	62	63	64	65	65	66	67	68	70	73	73	74	73	75	77	77	75	76	72	73	71	69	76	76	76	76	71	72
5/F	29.3	62	63	64	64	65	65	66	66	67	68	70	74	73	74	74	76	77	76	76	76	73	74	73	72	76	76	76	76	73	73
6/F	32.4	63	64	64	65	65	66	66	66	67	68	70	74	73	74	73	75	76	76	75	76	74	74	74	72	76	76	76	76	73	74
7/F	35.6	63	64	64	65	65	66	66	66	67	68	70	73	73	74	73	75	76	76	75	76	74	74	74	72	76	76	76	76	73	74
8/F	38.7	64	64	64	65	65	66	66	66	67	68	69	73	73	74	73	75	76	76	75	76	73	74	73	72	76	76	76	76	73	73
9/F	41.9	64	65	65	65	66	66	66	66	67	68	69	73	73	73	73	75	76	76	75	75	73	74	73	72	76	76	76	76	73	73
10/F	45.0	65	65	65	66	66	66	66	67	67	68	69	73	73	73	72	75	76	75	75	75	73	74	73	72	76	76	76	76	72	73
11/F	48.2	65	65	66	66	66	66	67	67	67	68	69	73	72	73	72	74	75	75	75	75	73	74	73	72	75	75	75	75	72	73
12/F	51.3	65	65	66	66	66	67	67	67	67	68	69	73	72	73	72	74	75	75	75	75	73	74	73	72	75	75	75	75	72	73
13/F	54.5	65	65	66	66	66	67	67	67	67	68	69	72	72	73	72	74	75	75	74	75	73	73	73	72	75	75	75	75	72	72
14/F	57.6	65	65	66	66	66	66	67	67	67	68	69	72	72	73	72	74	75	75	74	75	73	73	72	71	75	75	75	75	72	72
15/F	60.8	65	65	66	66	66	66	67	67	67	68	69	72	72	72	71	74	75	75	74	75	73	73	72	71	75	75	75	75	71	72
16/F	63.9	65	65	65	66	66	66	67	67	67	68	69	72	72	72	71	74	75	75	74	74	72	73	72	71	75	75	75	75	71	72
17/F	67.1	65	65	65	66	66	66	66	67	67	68	69	72	71	72	71	74	75	74	74	74	72	73	72	71	74	74	75	75	71	72
18/F	70.4	65	65	65	66	66	66	66	67	67	68	69	72	71	72	71	73	74	74	74	74	72	73	72	71	74	74	74	74	71	71
19/F	73.5	65	65	65	66	66	66	66	67	67	68	69	72	71	72	71	73	74	74	74	74	72	73	72	71	74	74	74	74	71	71
20/F	76.7	65	65	65	66	66	66	66	67	67	68	69	71	71	72	71	73	74	74	74	74	72	72	71	70	74	74	74	74	71	71
21/F	79.8	65	65	65	66	66	66	66	67	67	67	68	71	71	72	70	73	74	74	73	74	72	72	71	70	74	74	74	74	71	71
22/F	83.0	65	65	65	65	66	66	66	66	67	67	68	71	71	71	70	73	74	74	73	74	72	72	71	70	74	74	74	74	70	71
23/F	86.1	64	65	65	65	66	66	66	66	67	67	68	71	70	71	70	73	74	74	73	74	71	72	71	70	74	74	74	74	70	71
24/F	89.3	64	65	65	65	66	66	66	66	67	67	68	71	70	71	70	73	74	74	73	73	71	72	71	70	74	74	74	74	70	71
25/F	92.4	64	65	65	65	66	66	66	66	67	67	68	71	70	71	70	72	74	73	73	73	71	72	71	70	73	73	73	74	70	71
26/F	95.6	64	65	65	65	65	66	66	66	66	67	68	71	70	71	70	72	73	73	73	73	71	72	71	70	73	73	73	73	70	70
27/F	98.7	64	65	65	65	65	66	66	66	66	67	68	70	70	71	70	72	73	73	73	73	71	72	71	70	73	73	73	73	70	70
28/F	102.2	64	64	65	65	65	66	66	66	66	67	68	70	70	71	69	72	73	73	73	73	71	71	70	69	73	73	73	73	70	70
29/F	105.7	64	64	65	65	65	66	66	66	66	67	68	70	70	71	69	72	73	73	72	73	71	71	70	69	73	73	73	73	69	70
30/F	109.2	64	64	65	65	65	66	66	66	66	67	68	70	70	70	69	72	73	73	72	73	71	71	70	69	73	73	73	73	69	70
Max Noise Level		65	65	66	66	66	67	67	67	67	68	70	74	73	74	74	76	77	77	76	76	74	74	74	72	76	76	76	76	73	74
Exceedance			0		0		0		0		0					28					27				28				28		

Floor	mPD	N2-61	N2-62	N2-63	N2-64	N2-65	N2-66	N2-67	N2-68	N2-69	N2-70	N2-71	N2-72	N2-73	N2-74	N2-75	N2-76	N2-77	N2-78	N2-79	N2-80	N2-81	N2-82	N2-83	N2-84	N2-85
3/F	23.0	61	61	75	75	75	75	70	70	69	70	67	67	67	69	71	74	77	65	77	77	67	67	77	77	66
4/F	26.1	69	69	77	77	77	77	74	75	74	75	72	72	72	74	76	77	77	70	77	77	71	72	77	77	72
5/F	29.3	71	71	77	77	77	77	75	76	76	76	73	74	74	75	77	77	77	70	77	77	72	72	77	77	72
6/F	32.4	72	72	77	77	77	77	75	76	76	76	74	74	74	75	76	77	77	70	77	77	71	72	77	77	72
7/F	35.6	71	72	76	76	77	77	75	76	76	76	74	74	74	75	76	76	77	70	76	77	71	72	77	77	72
8/F	38.7	71	71	76	76	76	76	75	75	76	76	74	74	74	75	76	76	76	70	76	76	71	72	77	77	72
9/F	41.9	71	71	76	76	76	76	75	75	75	76	74	74	74	75	76	76	76	70	76	76	71	71	76	76	72
10/F	45.0	71	71	76	76	76	76	75	75	75	75	74	74	74	75	76	76	76	70	76	76	71	71	76	76	71
11/F	48.2	70	71	76	76	76	76	75	75	75	75	73	74	74	74	75	75	76	69	76	76	71	71	76	76	71
12/F	51.3	70	71	75	76	76	76	74	75	75	75	73	73	73	74	75	75	76	69	75	76	70	71	76	76	71
13/F	54.5	70	70	75	75	75	75	74	75	75	75	73	73	73	74	75	75	76	69	75	76	70	71	76	76	71
14/F	57.6	70	70	75	75	75	75	74	74	74	75	73	73	73	74	75	75	75	69	75	75	70	71	76	76	71
15/F	60.8	70	70	75	75	75	75	74	74	74	74	73	73	73	74	75	75	75	69	75	75	70	70	75	75	71
16/F	63.9	69	70	75	75	75	75	74	74	74	74	73	73	73	73	74	74	75	69	75	75	70	70	75	75	71
17/F	67.1	69	70	75	75	75	75	74	74	74	74	72	73	72	73	74	74	75	69	75	75	70	70	75	75	70
18/F	70.4	69	69	75	75	75	75	74	74	74	74	72	72	72	73	74	74	75	68	75	75	69	70	75	75	70
19/F	73.5	69	69	74	74	74	75	73	74	74	74	72	72	72	73	74	74	75	68	74	75	69	70	75	75	70
20/F	76.7	69	69	74	74	74	74	73	73	74	74	72	72	72	73	74	74	74	68	74	74	69	70	75	75	70
21/F	79.8	69	69	74	74	74	74	73	73	73	74	72	72	72	73	74	74	74	68	74	74	69	70	75	75	70
22/F	83.0	68	69	74	74	74	74	73	73	73	73	72	72	72	72	73	74	74	68	74	74	69	69	74	74	70
23/F	86.1	68	69	74	74	74	74	73	73	73	73	72	72	72	72	73	73	74	68	74	74	69	69	74	74	70
24/F	89.3	68	69	74	74	74	74	73	73	73	73	71	72	71	72	73	73	74	68	74	74	69	69	74	74	69
25/F	92.4	68	68	74	74	74	74	73	73	73	73	71	72	71	72	73	73	74	68	74	74	68	69	74	74	69
26/F	95.6	68	68	73	74	74	74	73	73	73	73	71	71	71	72	73	73	74	67	73	74	68	69	74	74	69
27/F	98.7	68	68	73	73	73	73	72	73	73	73	71	71	71	72	73	73	74	67	73	74	68	69	74	74	69
28/F	102.2	68	68	73	73	73	73	72	72	73	73	71	71	71	72	73	73	73	67	73	73	68	69	74	74	69
29/F	105.7	67	68	73	73	73	73	72	72	72	73	71	71	71	71	73	73	73	67	73	73	68	69	74	74	69
30/F	109.2	67	68	73	73	73	73	72	72	72	72	71	71	--	--	--	--	--	--	--	--	--	--	--	--	--
Max Noise Level		72	72	77	77	77	77	75	76	76	76	74	74	74	75	77	77	77	70	77	77	72	72	77	77	72
Exceedance			28				28				27				27					27				27		

Total no. of Flats:	1068
Total no. of Exceedance:	288
Compliance Level:	73%
Max. Noise Level for Tower:	77

Noted:
Noise level exceed stardand of 70 dB(A)

17/F serves as a refuge floor with no noise sensitive use

Predicted Road Traffic Noise at Selected Sensitive Receivers
Mitigated Case (Acoustic Fin) (AM Peak Flow)

Tower 1

Floor	mPD	N1-01	N1-02	N1-03	N1-04	N1-05	N1-06	N1-07	N1-08	N1-09	N1-10	N1-11	N1-12	N1-13	N1-14	N1-15	N1-16	N1-17	N1-18	N1-19	N1-20
3/F	23.0	**73**	66	65	65	65	65	65	65	65	65	65	65	65	65	66	65	66	66	66	66
4/F	26.1	**73**	**72**	70	69	69	69	70	70	70	70	70	70	70	70	70	70	70	70	70	68
5/F	29.3	**73**	**72**	**71**	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	68
6/F	32.4	**72**	**72**	**71**	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	68
7/F	35.6	**72**	**72**	**71**	**71**	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	68
8/F	38.7	**72**	**72**	**71**	**71**	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	68
9/F	41.9	**71**	**71**	**71**	**71**	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	68
10/F	45.0	**71**	**71**	**71**	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	68
11/F	48.2	**71**	**71**	**71**	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	68
12/F	51.3	**71**	**71**	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	68
13/F	54.5	**71**	**71**	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	67
14/F	57.6	**71**	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	69	69	67
15/F	60.8	**71**	70	70	70	70	70	70	69	69	69	69	69	69	69	69	69	69	69	69	67
16/F	63.9	70	70	70	70	70	69	69	69	69	69	69	69	69	69	69	69	69	69	69	67
17/F	67.1	70	70	70	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	67
18/F	70.4	70	70	70	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	67
19/F	73.5	70	70	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	67
20/F	76.7	70	70	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	67
21/F	79.8	70	70	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	66
22/F	83.0	70	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	68	66
23/F	86.1	70	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	68	68	66
24/F	89.3	70	69	69	69	69	69	69	69	69	69	69	69	69	69	68	68	68	68	68	66
25/F	92.4	70	69	69	69	69	69	69	69	69	68	69	69	68	68	68	68	68	68	68	66
26/F	95.6	69	69	69	69	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	66
27/F	98.7	69	69	69	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	66
28/F	102.2	69	69	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	66
29/F	105.7	69	69	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	66
30/F	109.2	69	69	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	66
Max Noise Level		**73**	**72**	**71**	**71**	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	68
Exceedance		13				0			0			0			0			0			

Floor	mPD	N1-21	N1-22	N1-23	N1-24	N1-25	N1-26	N1-27	N1-28	N1-29	N1-30	N1-31	N1-32	N1-33	N1-34	N1-35	N1-36	N1-37	N1-38	N1-39	N1-40	N1-41	N1-42	N1-43	N1-44
3/F	23.0	64	47	48	48	48	48	48	48	48	48	48	48	48	48	47	47	47	47	47	47	47	47	48	52
4/F	26.1	66	47	48	48	49	49	49	49	49	49	49	49	49	48	48	48	48	47	47	47	47	48	49	55
5/F	29.3	66	47	50	50	50	50	51	51	51	51	51	51	51	50	48	48	48	48	47	48	48	48	50	57
6/F	32.4	66	48	52	52	53	53	53	53	54	54	54	54	53	52	50	49	49	48	48	48	48	49	53	61
7/F	35.6	66	49	56	56	57	58	58	58	58	58	59	58	58	56	52	51	51	49	49	49	49	50	57	64
8/F	38.7	66	51	58	59	60	60	61	61	61	61	61	61	61	58	55	54	54	50	49	50	50	52	59	65
9/F	41.9	66	55	60	61	61	62	62	62	62	63	63	62	62	60	57	56	55	52	50	51	52	53	60	65
10/F	45.0	66	57	62	62	62	62	63	63	63	63	63	63	62	61	58	57	56	53	52	53	53	55	61	65
11/F	48.2	66	58	62	63	63	63	63	63	63	63	64	63	62	61	58	58	57	55	53	54	55	57	61	66
12/F	51.3	66	59	63	63	63	63	63	64	64	64	64	63	63	61	59	58	58	56	55	56	56	58	62	66
13/F	54.5	66	60	63	63	63	64	64	64	64	64	64	63	63	62	60	59	59	57	56	57	58	59	63	66
14/F	57.6	66	60	63	63	64	64	64	64	64	64	64	64	63	62	60	60	59	58	57	58	59	60	63	66
15/F	60.8	66	60	63	63	64	64	64	64	64	64	64	64	63	62	61	60	60	59	58	59	60	61	63	67
16/F	63.9	66	60	63	63	64	64	64	64	64	64	64	64	64	63	61	61	61	60	59	60	60	61	64	67
17/F	67.1	66	60	63	63	64	64	64	64	64	64	65	64	64	63	61	61	61	60	60	60	61	62	64	67
18/F	70.4	66	60	63	63	64	64	64	64	64	65	65	64	64	63	62	61	61	61	60	61	61	62	64	67
19/F	73.5	66	60	63	64	64	64	64	64	64	65	65	64	64	63	62	61	62	61	60	61	61	62	64	67
20/F	76.7	66	60	63	64	64	64	64	64	64	65	65	64	64	63	62	62	62	61	61	61	62	63	64	67
21/F	79.8	66	61	63	64	64	64	64	64	65	65	65	64	64	63	62	62	62	61	61	61	62	63	64	67
22/F	83.0	66	61	63	64	64	64	64	64	65	65	65	64	64	63	62	62	62	61	61	61	62	63	64	67
23/F	86.1	66	61	63	64	64	64	64	64	65	65	65	64	64	63	62	62	62	62	61	61	62	63	64	67
24/F	89.3	66	61	63	64	64	64	64	64	65	65	65	64	64	63	62	62	62	62	61	61	62	63	64	67
25/F	92.4	66	61	63	64	64	64	64	64	64	65	65	64	64	63	62	62	62	62	61	62	62	63	64	67
26/F	95.6	66	61	63	64	64	64	64	64	64	65	65	64	64	63	62	62	62	62	61	62	62	63	64	67
27/F	98.7	65	61	63	64	64	64	64	64	64	65	65	64	64	63	62	62	62	62	61	62	62	63	64	67
28/F	102.2	65	61	63	64	64	64	64	64	64	65	65	64	64	63	62	62	62	62	61	62	62	63	64	67
29/F	105.7	65	61	63	64	64	64	64	64	64	65	65	64	64	63	62	62	62	62	61	62	62	63	64	67
30/F	109.2	65	61	63	64	64	64	64	64	64	65	65	64	64	63	62	62	62	62	61	62	62	63	65	67
Max Noise Level		66	61	63	64	64	64	64	64	65	65	65	64	64	63	62	62	62	62	61	62	62	63	65	67
Exceedance		0				0			0			0			0			0			0			0	

Predicted Road Traffic Noise at Selected Sensitive Receivers
Mitigated Case (Acoustic Fin) (AM Peak Flow)

Tower 2

Floor	mPD	N2-01	N2-02	N2-03	N2-04	N2-05	N2-06	N2-07	N2-08	N2-09	N2-10	N2-11	N2-12	N2-13	N2-14	N2-15	N2-16	N2-17	N2-18	N2-19	N2-20	N2-21	N2-22	N2-23	N2-24	N2-25	N2-26	N2-27	N2-28	N2-29	N2-30
3/F	23.0	52	53	55	55	55	54	54	53	52	54	54	53	53	54	54	54	54	55	56	56	55	56	56	56	57	57	58	58	59	59
4/F	26.1	54	56	57	57	57	57	56	54	54	55	55	55	55	55	55	56	56	57	57	57	57	57	57	58	58	59	59	60	60	61
5/F	29.3	57	58	59	58	58	58	57	55	55	56	56	56	56	56	56	57	57	58	58	58	58	58	59	59	59	59	60	61	61	62
6/F	32.4	59	59	59	59	58	58	58	56	56	57	57	56	56	57	57	58	58	58	58	59	59	59	59	59	60	60	61	61	62	62
7/F	35.6	59	59	59	59	59	59	58	56	56	57	57	57	57	57	58	58	58	58	59	59	59	59	60	60	60	61	61	62	62	63
8/F	38.7	60	60	60	60	59	59	58	57	57	58	58	58	58	58	58	58	59	59	59	59	59	59	60	61	62	62	62	63	63	63
9/F	41.9	62	61	61	60	60	59	59	58	57	58	58	58	58	58	58	59	59	59	59	59	60	60	61	62	62	63	63	63	64	64
10/F	45.0	62	61	61	61	60	60	59	58	58	59	59	58	58	58	59	59	59	59	59	60	60	60	61	62	63	63	63	64	64	64
11/F	48.2	63	62	61	61	61	60	60	59	58	59	59	59	59	59	59	59	59	59	59	60	60	60	61	62	63	63	64	64	64	65
12/F	51.3	63	62	62	61	61	60	60	59	59	59	59	59	59	59	59	59	59	59	60	60	60	60	61	62	63	63	64	64	64	65
13/F	54.5	63	62	62	61	61	61	60	59	59	60	59	59	59	59	59	59	59	59	60	60	60	60	61	62	63	63	64	64	64	65
14/F	57.6	63	62	62	62	61	61	60	59	59	60	60	59	59	59	59	59	59	59	60	60	60	60	61	62	63	63	63	64	64	65
15/F	60.8	63	62	62	62	61	61	60	60	59	60	60	60	60	59	59	60	60	59	60	60	60	60	61	62	62	63	63	64	64	65
16/F	63.9	63	62	62	62	61	61	61	60	60	60	60	60	60	60	60	60	60	59	60	60	60	60	61	62	62	63	63	64	64	65
17/F	67.1	63	62	62	62	61	61	61	60	60	60	60	60	60	60	60	60	60	59	60	60	60	60	61	62	62	63	63	64	64	65
18/F	70.4	63	62	62	62	61	61	61	60	60	60	60	60	60	60	60	60	60	59	60	60	60	60	61	62	62	63	63	64	64	64
19/F	73.5	63	62	62	62	61	61	61	60	60	60	60	60	60	60	60	60	60	59	60	60	60	60	61	62	62	63	63	64	64	64
20/F	76.7	63	62	62	62	61	61	61	60	60	60	60	60	60	60	60	60	60	59	60	60	60	60	61	62	62	63	63	64	64	64
21/F	79.8	63	62	62	62	61	61	61	60	60	60	60	60	60	60	60	60	60	59	60	60	60	60	61	62	62	63	63	64	64	64
22/F	83.0	63	62	62	62	61	61	61	60	60	60	60	60	60	60	60	60	60	59	60	60	60	60	61	62	62	63	63	63	64	64
23/F	86.1	63	62	62	62	61	61	61	60	60	60	60	60	60	60	60	60	60	59	60	60	60	60	61	61	62	62	63	63	64	64
24/F	89.3	63	62	62	62	61	61	61	60	60	60	60	60	60	60	60	60	60	59	60	60	60	60	61	61	62	62	63	63	64	64
25/F	92.4	63	62	62	62	61	61	60	60	60	60	60	60	60	60	60	60	60	59	60	60	60	60	61	61	62	62	63	63	64	64
26/F	95.6	63	62	62	62	61	61	60	60	60	60	60	60	60	60	60	60	60	59	60	60	60	60	61	61	62	62	63	63	63	64
27/F	98.7	63	62	62	62	61	61	60	60	60	60	60	60	60	60	60	60	60	59	60	60	60	60	61	61	62	62	63	63	63	64
28/F	102.2	63	62	62	62	61	61	61	60	60	60	60	60	60	60	60	60	60	59	60	60	60	60	61	61	62	62	63	63	63	64
29/F	105.7	--	--	--	--	--	--	--	--	60	60	60	60	60	60	60	60	60	59	60	60	60	60	61	61	62	62	63	63	63	64
30/F	109.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	60	60	60	60	60	61	61	62	62	63	63	63	64
Max Noise Level		63	62	62	62	61	61	61	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	61	62	63	63	64	64	64	65
Exceedance			0			0		0			0			0			0			0			0			0			0		0

Floor	mPD	N2-31	N2-32	N2-33	N2-34	N2-35	N2-36	N2-37	N2-38	N2-39	N2-40	N2-41	N2-42	N2-43	N2-44	N2-45	N2-46	N2-47	N2-48	N2-49	N2-50	N2-51	N2-52	N2-53	N2-54	N2-55	N2-56	N2-57	N2-58	N2-59	N2-60
3/F	23.0	60	61	61	62	63	64	64	65	66	67	69	74	70	71	68	71	76	75	70	70	65	66	65	62	71	71	71	72	65	66
4/F	26.1	61	62	62	63	64	65	65	66	67	68	70	73	73	74	73	75	77	77	75	76	72	73	71	69	76	76	76	76	71	72
5/F	29.3	62	63	64	64	65	65	66	66	67	68	70	74	73	74	74	76	77	76	76	76	73	74	73	72	76	76	76	76	73	73
6/F	32.4	63	64	64	65	65	66	66	66	67	68	70	74	73	74	73	75	76	76	75	76	74	74	74	72	76	76	76	76	73	74
7/F	35.6	63	64	64	65	65	66	66	66	67	68	70	73	73	74	73	75	76	76	75	76	74	74	74	72	76	76	76	76	73	74
8/F	38.7	64	64	64	65	65	66	66	66	67	68	69	73	73	74	73	75	76	76	75	76	73	74	73	72	76	76	76	76	73	73
9/F	41.9	64	65	65	65	66	66	66	66	67	68	69	73	73	73	73	75	76	76	75	75	73	74	73	72	76	76	76	76	73	73
10/F	45.0	65	65	65	66	66	66	66	67	67	68	69	73	73	73	72	75	76	75	75	75	73	74	73	72	75	76	76	76	72	73
11/F	48.2	65	65	66	66	66	66	67	67	67	68	69	73	72	73	72	74	75	75	75	75	73	74	73	72	75	75	75	75	72	73
12/F	51.3	65	65	66	66	66	67	67	67	67	68	69	73	72	73	72	74	75	75	75	75	73	74	73	72	75	75	75	75	72	73
13/F	54.5	65	65	66	66	66	67	67	67	67	68	69	72	72	73	72	74	75	75	74	75	73	73	73	72	75	75	75	75	72	72
14/F	57.6	65	65	66	66	66	66	67	67	67	68	69	72	72	73	72	74	75	75	74	75	73	73	72	71	75	75	75	75	72	72
15/F	60.8	65	65	66	66	66	66	67	67	67	68	69	72	72	72	71	74	75	75	74	75	73	73	72	71	75	75	75	75	71	72
16/F	63.9	65	65	65	66	66	66	67	67	67	68	69	72	72	72	71	74	75	75	74	74	72	73	72	71	75	75	75	75	71	72
17/F	67.1	65	65	65	66	66	66	66	67	67	68	69	72	71	72	71	74	75	74	74	74	72	73	72	71	74	74	74	75	71	72
18/F	70.4	65	65	65	66	66	66	66	67	67	68	69	72	71	72	71	73	74	74	74	74	72	73	72	71	74	74	74	74	71	71
19/F	73.5	65	65	65	66	66	66	66	67	67	68	69	72	71	72	71	73	74	74	74	74	72	73	72	71	74	74	74	74	71	71
20/F	76.7	65	65	65	66	66	66	66	67	67	68	69	71	71	72	71	73	74	74	74	74	72	72	71	70	74	74	74	74	71	71
21/F	79.8	65	65	65	66	66	66	66	67	67	67	68	71	71	72	70	73	74	74	73	74	72	72	71	70	74	74	74	74	71	71
22/F	83.0	65	65	65	65	66	66	66	66	67	67	68	71	71	71	70	73	74	74	73	74	72	72	71	70	74	74	74	74	70	71
23/F	86.1	64	65	65	65	66	66	66	66	67	67	68	71	70	71	70	73	74	74	73	73	71	72	71	70	74	74	74	74	70	71
24/F	89.3	64	65	65	65	66	66	66	66	67	67	68	71	70	71	70	73	74	74	73	73	71	72	71	70	73	74	74	74	70	71
25/F	92.4	64	65	65	65	66	66	66	66	67	67	68	71	70	71	70	72	74	73	73	73	71	72	71	70	73	73	73	73	70	71
26/F	95.6	64	65	65	65	65	66	66	66	66	67	68	71	70	71	70	72	73	73	73	73	71	72	71	70	73	73	73	73	70	70
27/F	98.7	64	65	65	65	65	66	66	66	66	67	68	70	70	71	70	72	73	73	73	73	71	72	71	70	73	73	73	73	70	70
28/F	102.2	64	64	65	65	65	66	66	66	66	67	68	70	70	71	69	72	73	73	73	73	71	71	70	69	73	73	73	73	70	70
29/F	105.7	64	64	65	65	65	66	66	66	66	67	68	70	70	71	69	72	73	73	72	73	71	71	70	69	73	73	73	73	69	70
30/F	109.2	64	64	65	65	65	66	66	66	66	67	68	70	70	70	69	72	73	73	72	73	71	71	70	69	73	73	73	73	69	70
Max Noise Level		65	65	66	66	66	67	67	67	67	68	70	74	73	74	74	76	77	77	76	76	74	74	74	72	76	76	76	76	73	74
Exceedance			0		0		0		0		0					28					27				28				28		

Floor	mPD	N2-61	N2-62	N2-63	N2-64	N2-65	N2-66	N2-67	N2-68	N2-69	N2-70	N2-71	N2-72	N2-73	N2-74	N2-75	N2-76	N2-77	N2-78	N2-79	N2-80	N2-81	N2-82	N2-83	N2-84	N2-85
3/F	23.0	61	61	75	75	75	75	70	70	69	70	66	67	66	67	71	74	77	64	77	77	66	67	77	77	66
4/F	26.1	69	69	77	77	77	77	74	75	74	75	72	72	71	72	76	77	77	70	77	77	71	72	77	77	72
5/F	29.3	71	71	77	77	77	77	75	76	76	76	73	73	72	73	77	77	77	70	77	77	72	72	77	77	72
6/F	32.4	72	72	77	77	77	77	75	76	76	76	73	74	73	74	76	76	77	70	77	77	71	72	77	77	72
7/F	35.6	71	72	76	76	77	77	75	76	76	76	73	74	73	73	76	76	77	70	76	77	71	72	77	77	72
8/F	38.7	71	71	76	76	76	76	75	75	75	76	73	74	73	73	76	76	76	70	76	76	71	72	77	77	72
9/F	41.9	71	71	76	76	76	76	75	75	75	75	73	73	73	73	76	76	76	70	76	76	71	71	76	76	72
10/F	45.0	71	71	76	76	76	76	75	75	75	75	73	73	73	73	76	75	76	70	76	76	71	71	76	76	71
11/F	48.2	70	71	76	76	76	76	75	75	75	75	73	73	72	72	75	75	76	69	76	76	71	71	76	76	71
12/F	51.3	70	71	75	76	76	76	74	75	75	75	73	73	72	72	75	75	76	69	75	76	70	71	76	76	71
13/F	54.5	70	70	75	75	75	75	74	74	74	75	72	73	72	72	75	75	76	69	75	76	70	71	76	76	71
14/F	57.6	70	70	75	75	75	75	74	74	74	74	72	73	72	72	75	75	75	69	75	75	70	70	76	76	71
15/F	60.8	70	70	75	75	75	75	74	74	74	74	72	72	72	72	75	74	75	69	75	75	70	70	75	75	71
16/F	63.9	69	70	75	75	75	75	74	74	74	74	72	72	71	71	74	74	75	69	75	75	70	70	75	75	70
17/F	67.1	69	70	75	75	75	75	74	74	74	74	72	72	71	71	74	74	75	68	75	75	70	70	75	75	70
18/F	70.4	69	69	75	75	75	75	73	74	74	74	72	72	71	71	74	74	75	68	75	75	69	70	75	75	70
19/F	73.5	69	69	74	74	74	74	73	74	74	74	71	72	71	71	74	74	75	68	74	75	69	70	75	75	70
20/F	76.7	69	69	74	74	74	74	73	73	73	73	71	72	71	71	74	74	74	68	74	74	69	70	75	75	70
21/F	79.8	69	69	74	74	74	74	73	73	73	73	71	71	71	71	74	73	74	68	74	74	69	69	75	75	70
22/F	83.0	68	69	74	74	74	74	73	73	73	73	71	71	70	70	73	73	74	68	74	74	69	69	74	74	70
23/F	86.1	68	69	74	74	74	74	73	73	73	73	71	71	70	70	73	73	74	68	74	74	69	69	74	74	69
24/F	89.3	68	69	74	74	74	74	73	73	73	73	71	71	70	70	73	73	74	68	74	74	69	69	74	74	69
25/F	92.4	68	68	74	74	74	74	73	73	73	73	71	71	70	70	73	73	74	67	74	74	68	69	74	74	69
26/F	95.6	68	68	73	74	74	74	72	73	73	73	71	71	70	70	73	73	74	67	73	74	68	69	74	74	69
27/F	98.7	68	68	73	73	73	73	72	72	72	73	70	71	70	70	73	73	74	67	73	74	68	69	74	74	69
28/F	102.2	68	68	73	73	73	73	72	72	72	72	70	71	70	70	73	73	73	67	73	73	68	69	74	74	69
29/F	105.7	67	68	73	73	73	73	72	72	72	72	70	70	69	69	73	72	73	67	73	73	68	69	74	74	69
30/F	109.2	67	68	73	73	73	73	72	72	72	72	70	70	--	--	--	--	--	--	--	--	--	--	--	--	--
Max Noise Level		72	72	77	77	77	77	75	76	76	76	73	74	73	74	77	77	77	70	77	77	72	72	77	77	72
Exceedance			28				28				27				27					27				27		

Total no. of Flats:	1068
Total no. of Exceedance:	288
Compliance Level:	73%
Max. Noise Level for Tower:	77

Noted:
Noise level exceed stardand of 70 dB(A)

17/F serves as a refuge floor with no noise sensitive use

Predicted Road Traffic Noise at Selected Sensitive Receivers
Mitigated Case (Acoustic Fin) (PM Peak Flow)

Tower 1

Floor	mPD	N1-01	N1-02	N1-03	N1-04	N1-05	N1-06	N1-07	N1-08	N1-09	N1-10	N1-11	N1-12	N1-13	N1-14	N1-15	N1-16	N1-17	N1-18	N1-19	N1-20
3/F	23.0	**73**	65	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	65	65
4/F	26.1	**73**	**71**	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	67
5/F	29.3	**72**	**72**	70	69	69	69	69	69	70	70	70	70	70	70	70	70	70	70	70	67
6/F	32.4	**72**	**72**	**71**	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	67
7/F	35.6	**72**	**71**	**71**	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	67
8/F	38.7	**71**	**71**	**71**	70	70	70	70	70	70	70	70	70	70	70	70	70	70	69	69	67
9/F	41.9	**71**	**71**	70	70	70	70	69	69	70	69	69	70	69	69	69	69	69	69	69	67
10/F	45.0	**71**	**71**	70	70	70	70	69	69	69	69	69	69	69	69	69	69	69	69	69	67
11/F	48.2	**71**	**71**	70	70	70	69	69	69	69	69	69	69	69	69	69	69	69	69	69	67
12/F	51.3	**71**	70	70	70	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	67
13/F	54.5	**71**	70	70	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	67
14/F	57.6	**71**	70	70	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	66
15/F	60.8	70	70	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	66
16/F	63.9	70	70	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	68	68	66
17/F	67.1	70	70	69	69	69	69	69	69	69	69	69	69	69	69	68	68	68	68	68	66
18/F	70.4	70	69	69	69	69	69	69	68	68	68	68	68	68	68	68	68	68	68	68	66
19/F	73.5	70	69	69	69	69	68	68	68	68	68	68	68	68	68	68	68	68	68	68	66
20/F	76.7	70	69	69	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	66
21/F	79.8	70	69	69	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	66
22/F	83.0	70	69	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	65
23/F	86.1	69	69	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	65
24/F	89.3	69	69	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	65
25/F	92.4	69	69	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	67	65
26/F	95.6	69	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	67	67	67	65
27/F	98.7	69	68	68	68	68	68	68	68	68	68	68	68	68	68	67	67	67	67	67	65
28/F	102.2	69	68	68	68	68	68	68	68	68	67	67	67	67	67	67	67	67	67	67	65
29/F	105.7	69	68	68	68	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	65
30/F	109.2	69	68	68	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	65
Max Noise Level		**73**	**72**	**71**	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	67
Exceedance		12				0			0			0			0			0			

Floor	mPD	N1-21	N1-22	N1-23	N1-24	N1-25	N1-26	N1-27	N1-28	N1-29	N1-30	N1-31	N1-32	N1-33	N1-34	N1-35	N1-36	N1-37	N1-38	N1-39	N1-40	N1-41	N1-42	N1-43	N1-44
3/F	23.0	63	46	47	47	47	48	48	48	48	48	48	48	48	47	47	47	47	47	47	47	47	47	48	52
4/F	26.1	65	47	48	48	48	49	49	49	49	49	49	49	49	48	48	47	47	47	47	47	47	48	49	56
5/F	29.3	65	47	49	49	50	50	50	50	51	51	51	51	51	50	49	48	48	48	48	48	48	49	51	57
6/F	32.4	65	48	51	51	52	52	53	53	53	54	54	54	53	52	50	50	50	49	48	49	49	50	54	61
7/F	35.6	65	49	55	56	56	57	57	57	58	58	58	58	58	56	53	52	52	50	49	49	50	51	58	64
8/F	38.7	65	52	57	58	59	60	60	60	61	61	61	61	61	59	55	54	54	51	50	50	51	53	59	64
9/F	41.9	65	55	60	60	61	61	61	62	62	62	62	62	62	60	57	56	56	53	51	52	52	54	60	65
10/F	45.0	66	58	61	61	62	62	62	62	63	63	63	62	62	61	58	57	57	54	53	54	54	56	61	65
11/F	48.2	66	59	62	62	62	63	63	63	63	63	63	63	62	61	59	58	58	56	54	55	56	58	62	66
12/F	51.3	66	60	62	63	63	63	63	63	63	64	64	63	63	62	59	59	59	57	56	57	58	59	62	66
13/F	54.5	66	60	63	63	63	63	64	64	64	64	64	63	63	62	60	60	60	58	57	58	59	60	63	66
14/F	57.6	66	60	63	63	63	64	64	64	64	64	64	64	63	62	61	60	60	59	58	59	60	61	64	67
15/F	60.8	66	60	63	63	64	64	64	64	64	64	64	64	64	63	61	61	61	60	59	60	61	62	64	67
16/F	63.9	66	60	63	63	64	64	64	64	64	64	64	64	64	63	62	61	61	61	60	61	62	63	64	67
17/F	67.1	65	61	63	63	64	64	64	64	64	65	65	64	64	63	62	62	62	61	61	62	62	63	65	67
18/F	70.4	65	61	63	63	64	64	64	64	64	65	65	64	64	63	62	62	62	62	61	62	62	63	65	67
19/F	73.5	65	61	63	63	64	64	64	64	64	65	65	64	64	64	63	62	62	62	62	62	63	63	65	67
20/F	76.7	65	61	63	63	64	64	64	64	64	65	65	65	64	64	63	62	63	62	62	62	63	64	65	67
21/F	79.8	65	61	63	63	64	64	64	64	65	65	65	65	64	64	63	63	63	62	62	62	63	64	65	67
22/F	83.0	65	61	63	63	64	64	64	64	65	65	65	65	64	64	63	63	63	62	62	63	63	64	65	67
23/F	86.1	65	61	63	63	64	64	64	64	65	65	65	65	64	64	63	63	63	63	62	63	63	64	65	67
24/F	89.3	65	61	63	63	64	64	64	64	64	65	65	65	64	64	63	63	63	63	62	63	63	64	65	67
25/F	92.4	65	61	63	63	64	64	64	64	64	65	65	64	64	64	63	63	63	63	62	63	63	64	65	67
26/F	95.6	65	61	63	63	64	64	64	64	64	65	65	64	64	64	63	63	63	63	62	63	63	64	65	67
27/F	98.7	65	61	63	63	64	64	64	64	64	65	65	64	64	64	63	63	63	63	62	63	63	64	65	67
28/F	102.2	65	61	63	63	64	64	64	64	64	65	65	64	64	64	63	63	63	63	62	63	63	64	65	67
29/F	105.7	65	61	63	63	64	64	64	64	64	65	65	64	64	64	63	63	63	63	62	63	63	64	65	67
30/F	109.2	65	61	63	63	64	64	64	64	64	65	65	64	64	64	63	63	63	63	62	63	63	64	65	67
Max Noise Level		66	61	63	63	64	64	64	64	65	65	65	65	64	64	63	63	63	63	62	63	63	64	65	67
Exceedance		0				0			0			0			0			0			0			0	

Predicted Road Traffic Noise at Selected Sensitive Receivers
Mitigated Case (Acoustic Fin) (PM Peak Flow)

Tower 2

Floor	mPD	N2-01	N2-02	N2-03	N2-04	N2-05	N2-06	N2-07	N2-08	N2-09	N2-10	N2-11	N2-12	N2-13	N2-14	N2-15	N2-16	N2-17	N2-18	N2-19	N2-20	N2-21	N2-22	N2-23	N2-24	N2-25	N2-26	N2-27	N2-28	N2-29	N2-30
3/F	23.0	50	52	54	54	53	53	53	51	51	53	53	53	53	53	53	54	54	54	55	55	55	55	55	56	56	56	57	58	58	59
4/F	26.1	53	54	55	56	56	55	55	53	53	54	54	54	54	54	55	55	56	56	56	56	56	56	57	57	58	58	58	59	59	60
5/F	29.3	56	56	57	57	57	56	56	54	54	55	55	55	55	55	56	56	57	57	57	57	57	58	58	59	59	59	59	60	60	61
6/F	32.4	57	57	58	57	57	57	56	55	55	56	56	56	56	56	56	57	58	58	58	58	58	58	59	59	59	60	60	61	61	62
7/F	35.6	58	58	58	58	57	57	57	55	55	56	56	56	56	57	57	58	58	58	58	58	58	59	59	60	60	60	61	61	62	63
8/F	38.7	59	59	59	58	58	58	57	56	56	57	57	57	57	57	58	58	58	58	58	59	59	59	60	61	61	61	62	62	63	63
9/F	41.9	61	59	59	59	59	58	58	57	57	58	58	57	58	58	58	58	58	58	59	59	59	59	60	61	62	62	63	63	63	64
10/F	45.0	61	60	60	60	59	59	58	57	57	58	58	58	58	58	58	59	59	59	59	59	59	60	61	61	62	63	63	63	64	64
11/F	48.2	62	61	60	60	60	59	59	58	58	58	58	58	58	58	59	59	59	59	59	59	60	60	61	61	62	63	63	63	64	64
12/F	51.3	62	61	61	60	60	60	59	58	58	59	59	59	59	59	59	59	59	59	59	59	60	60	61	61	62	63	63	63	64	64
13/F	54.5	62	62	61	61	60	60	59	59	58	59	59	59	59	59	59	59	59	59	59	59	60	60	61	61	62	63	63	63	64	64
14/F	57.6	63	62	61	61	60	60	60	59	59	59	59	59	59	59	59	59	59	59	59	60	60	60	61	61	62	62	63	63	64	64
15/F	60.8	63	62	61	61	60	60	60	59	59	59	59	59	59	59	59	59	59	59	59	60	60	60	61	61	62	62	63	63	64	64
16/F	63.9	63	62	61	61	60	60	60	59	59	60	60	59	59	59	59	59	59	59	59	60	60	60	61	61	62	62	63	63	64	64
17/F	67.1	63	62	61	61	61	60	60	59	59	60	60	60	59	59	59	59	59	59	59	60	60	60	61	61	62	62	63	63	64	64
18/F	70.4	63	62	61	61	61	60	60	59	59	60	60	60	59	59	59	59	59	59	60	60	60	60	61	61	62	62	63	63	63	64
19/F	73.5	63	62	61	61	61	60	60	59	59	60	60	60	60	59	59	59	59	59	60	60	60	60	61	61	62	62	63	63	63	64
20/F	76.7	63	62	61	61	61	60	60	59	59	60	60	60	60	60	60	59	59	59	60	60	60	60	61	61	62	62	63	63	63	64
21/F	79.8	63	62	61	61	61	60	60	59	59	60	60	60	60	60	60	60	59	59	60	60	60	60	61	61	62	62	63	63	63	64
22/F	83.0	63	62	61	61	61	60	60	59	59	60	60	60	60	60	60	60	59	59	60	60	60	60	61	61	62	62	62	63	63	64
23/F	86.1	63	62	61	61	61	60	60	59	59	60	60	60	60	60	60	60	59	59	60	60	60	60	61	61	62	62	62	63	63	64
24/F	89.3	63	62	61	61	61	60	60	59	59	60	60	60	60	60	60	60	59	59	60	60	60	60	61	61	62	62	62	63	63	64
25/F	92.4	62	62	61	61	60	60	60	59	59	60	60	60	60	60	60	60	59	59	60	60	60	60	61	61	62	62	62	63	63	64
26/F	95.6	62	62	61	61	60	60	60	59	59	60	60	60	60	59	59	60	59	59	60	60	60	60	61	61	62	62	62	63	63	63
27/F	98.7	62	62	61	61	60	60	60	59	59	60	60	60	60	59	59	59	59	59	60	60	60	60	61	61	62	62	62	63	63	63
28/F	102.2	62	62	61	61	61	60	60	59	59	60	60	60	60	59	59	59	59	59	60	60	60	60	60	61	61	62	62	63	63	63
29/F	105.7	--	--	--	--	--	--	--	--	60	60	60	60	60	60	60	60	60	59	60	60	60	60	60	61	61	62	62	63	63	63
30/F	109.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	60	60	60	60	60	61	61	62	62	62	63	63	63
Max Noise Level		63	62	61	61	61	60	60	59	60	60	60	60	60	60	60	60	60	60	60	60	60	60	61	61	62	63	63	63	64	64
Exceedance			0			0		0			0			0			0			0			0			0			0		0

Floor	mPD	N2-31	N2-32	N2-33	N2-34	N2-35	N2-36	N2-37	N2-38	N2-39	N2-40	N2-41	N2-42	N2-43	N2-44	N2-45	N2-46	N2-47	N2-48	N2-49	N2-50	N2-51	N2-52	N2-53	N2-54	N2-55	N2-56	N2-57	N2-58	N2-59	N2-60
3/F	23.0	59	60	61	61	62	63	64	65	66	67	69	73	69	70	67	70	75	74	69	69	65	66	63	60	70	70	71	71	64	65
4/F	26.1	61	62	62	63	64	65	65	66	67	68	69	73	72	73	72	74	76	76	74	75	70	71	70	67	75	75	75	75	70	71
5/F	29.3	62	63	63	64	65	65	66	66	67	68	69	73	72	73	73	75	76	75	75	75	72	73	72	70	75	75	75	76	71	72
6/F	32.4	63	64	64	65	65	65	66	66	67	68	69	73	73	73	73	74	75	75	75	75	73	73	72	71	75	75	75	75	72	72
7/F	35.6	63	64	64	65	65	65	66	66	67	68	69	73	72	73	72	74	75	75	74	75	73	73	72	71	75	75	75	75	72	72
8/F	38.7	63	64	64	65	65	65	66	66	67	68	69	72	72	73	72	74	75	75	74	75	72	73	72	71	75	75	75	75	72	72
9/F	41.9	64	64	65	65	65	66	66	66	67	68	69	72	72	73	72	74	75	75	74	75	72	73	72	71	75	75	75	75	71	72
10/F	45.0	64	65	65	65	66	66	66	66	67	68	69	72	72	72	72	74	75	75	74	74	72	73	72	71	75	75	75	75	71	72
11/F	48.2	65	65	65	66	66	66	66	67	67	68	69	72	71	72	71	73	75	74	74	74	72	73	72	71	74	75	75	75	71	72
12/F	51.3	65	65	65	66	66	66	66	67	67	68	69	72	71	72	71	73	74	74	74	74	72	73	72	71	74	74	74	75	71	71
13/F	54.5	65	65	65	66	66	66	66	67	67	68	69	72	71	72	71	73	74	74	74	74	72	73	71	70	74	74	74	74	71	71
14/F	57.6	65	65	65	66	66	66	66	67	67	68	69	71	71	72	71	73	74	74	73	74	72	72	71	70	74	74	74	74	70	71
15/F	60.8	65	65	65	65	66	66	66	67	67	67	68	71	71	71	70	73	74	74	73	74	72	72	71	70	74	74	74	74	70	71
16/F	63.9	64	65	65	65	66	66	66	66	67	67	68	71	71	71	70	73	74	74	73	74	71	72	71	70	74	74	74	74	70	71
17/F	67.1	64	65	65	65	66	66	66	66	67	67	68	71	70	71	70	72	74	74	73	73	71	72	71	70	74	74	74	74	70	70
18/F	70.4	64	65	65	65	66	66	66	66	67	67	68	71	70	71	70	72	74	73	73	73	71	72	70	69	73	73	74	74	70	70
19/F	73.5	64	65	65	65	66	66	66	66	67	67	68	71	70	71	70	72	73	73	73	73	71	72	70	69	73	73	73	73	70	70
20/F	76.7	64	65	65	65	65	66	66	66	66	67	68	70	70	71	70	72	73	73	73	73	71	72	70	69	73	73	73	73	69	70
21/F	79.8	64	65	65	65	65	66	66	66	66	67	68	70	70	71	69	72	73	73	73	73	71	71	70	69	73	73	73	73	69	70
22/F	83.0	64	64	65	65	65	66	66	66	66	67	68	70	70	70	69	72	73	73	72	73	71	71	70	69	73	73	73	73	69	70
23/F	86.1	64	64	65	65	65	66	66	66	66	67	68	70	69	70	69	72	73	73	72	73	70	71	70	69	73	73	73	73	69	70
24/F	89.3	64	64	65	65	65	66	66	66	66	67	68	70	69	70	69	71	73	73	72	73	70	71	70	69	73	73	73	73	69	69
25/F	92.4	64	64	64	65	65	66	66	66	66	67	67	70	69	70	69	71	73	73	72	72	70	71	69	68	73	73	73	73	69	69
26/F	95.6	64	64	64	65	65	65	66	66	66	67	67	70	69	70	69	71	73	72	72	72	70	71	69	68	72	73	73	73	69	69
27/F	98.7	64	64	64	65	65	65	66	66	66	67	67	70	69	70	69	71	73	72	72	72	70	71	69	68	72	72	73	73	68	69
28/F	102.2	64	64	64	65	65	65	65	66	66	66	67	69	69	70	69	71	72	72	72	72	70	71	69	68	72	72	72	72	68	69
29/F	105.7	64	64	64	65	65	65	65	66	66	66	67	69	69	70	68	71	72	72	72	72	70	71	69	68	72	72	72	72	68	69
30/F	109.2	64	64	64	64	65	65	65	66	66	66	67	69	69	69	68	71	72	72	72	72	70	70	69	68	72	72	72	72	68	69
Max Noise Level		65	65	65	66	66	66	66	67	67	68	69	73	73	73	73	75	76	76	75	75	73	73	72	71	75	75	75	76	72	72
Exceedance			0		0		0		0		0					28					27					27				28	

Floor	mPD	N2-61	N2-62	N2-63	N2-64	N2-65	N2-66	N2-67	N2-68	N2-69	N2-70	N2-71	N2-72	N2-73	N2-74	N2-75	N2-76	N2-77	N2-78	N2-79	N2-80	N2-81	N2-82	N2-83	N2-84	N2-85
3/F	23.0	59	60	74	74	74	74	69	70	69	69	65	66	64	65	71	74	77	65	76	77	67	67	77	77	66
4/F	26.1	67	67	76	76	76	76	74	74	73	74	71	71	69	70	75	76	77	70	77	77	71	72	77	77	72
5/F	29.3	70	70	76	76	76	76	75	75	75	75	72	72	71	72	76	76	77	70	76	77	71	72	77	77	72
6/F	32.4	70	70	76	76	76	76	75	75	75	75	72	73	72	72	76	76	77	70	76	77	71	72	77	77	72
7/F	35.6	70	70	76	76	76	76	75	75	75	75	73	73	72	72	76	75	76	70	76	76	71	72	77	77	72
8/F	38.7	70	70	75	75	76	76	74	75	75	75	73	73	72	72	75	75	76	70	76	76	71	71	76	76	72
9/F	41.9	70	70	75	75	75	75	74	75	75	75	72	73	72	72	75	75	76	70	76	76	71	71	76	76	72
10/F	45.0	69	70	75	75	75	75	74	74	74	74	72	73	72	71	75	75	76	70	76	76	71	71	76	76	71
11/F	48.2	69	70	75	75	75	75	74	74	74	74	72	72	71	71	75	75	76	69	75	76	70	71	76	76	71
12/F	51.3	69	69	75	75	75	75	74	74	74	74	72	72	71	71	74	74	76	69	75	75	70	71	76	76	71
13/F	54.5	69	69	75	75	75	75	74	74	74	74	72	72	71	71	74	74	75	69	75	75	70	71	76	76	71
14/F	57.6	69	69	74	74	75	75	73	74	74	74	72	72	71	71	74	74	75	69	75	75	70	71	75	75	71
15/F	60.8	68	69	74	74	74	74	73	74	74	74	71	72	70	70	74	74	75	69	75	75	70	70	75	75	71
16/F	63.9	68	69	74	74	74	74	73	73	73	73	71	72	70	70	74	74	75	69	75	75	70	70	75	75	71
17/F	67.1	68	68	74	74	74	74	73	73	73	73	71	71	70	70	74	74	75	69	75	75	69	70	75	75	70
18/F	70.4	68	68	74	74	74	74	73	73	73	73	71	71	70	70	73	73	75	68	74	75	69	70	75	75	70
19/F	73.5	68	68	74	74	74	74	73	73	73	73	71	71	70	70	73	73	74	68	74	74	69	70	75	75	70
20/F	76.7	67	68	74	74	74	74	73	73	73	73	71	71	70	69	73	73	74	68	74	74	69	70	74	75	70
21/F	79.8	67	68	73	73	74	74	72	73	73	73	70	71	69	69	73	73	74	68	74	74	69	70	74	74	70
22/F	83.0	67	68	73	73	73	73	72	73	73	73	70	71	69	69	73	73	74	68	74	74	69	69	74	74	70
23/F	86.1	67	67	73	73	73	73	72	72	72	72	70	71	69	69	73	73	74	68	74	74	69	69	74	74	70
24/F	89.3	67	67	73	73	73	73	72	72	72	72	70	70	69	69	73	73	74	68	74	74	68	69	74	74	69
25/F	92.4	67	67	73	73	73	73	72	72	72	72	70	70	69	69	73	72	74	68	73	74	68	69	74	74	69
26/F	95.6	67	67	73	73	73	73	72	72	72	72	70	70	69	69	72	72	74	67	73	74	68	69	74	74	69
27/F	98.7	66	67	73	73	73	73	72	72	72	72	70	70	69	68	72	72	73	67	73	73	68	69	74	74	69
28/F	102.2	66	67	73	73	73	73	72	72	72	72	70	70	68	68	72	72	73	67	73	73	68	69	74	74	69
29/F	105.7	66	67	72	73	73	73	72	72	72	72	69	70	68	68	72	72	73	67	73	73	68	69	73	73	69
30/F	109.2	66	66	72	72	72	73	71	72	72	72	69	70	--	--	--	--	--	--	--	--	--	--	--	--	--
Max Noise Level		70	70	76	76	76	76	75	75	75	75	73	73	72	72	76	76	77	70	77	77	71	72	77	77	72
Exceedance			28			28				27					27				27				27			

Total no. of Flats:	1068
Total no. of Exceedance:	286
Compliance Level:	73%
Max. Noise Level for Tower:	77

Noted:

Noise level exceed stardand of 70 dB(A)

17/F serves as a refuge floor with no noise sensitive use

Predicted Road Traffic Noise at Selected Sensitive Receivers
Mitigated Case (Acoustic Fin) (Combined Case)

Tower 1

Floor	mPD	N1-01	N1-02	N1-03	N1-04	N1-05	N1-06	N1-07	N1-08	N1-09	N1-10	N1-11	N1-12	N1-13	N1-14	N1-15	N1-16	N1-17	N1-18	N1-19	N1-20
3/F	23.0	**73**	66	65	65	65	65	65	65	65	65	65	65	65	65	66	65	66	66	66	66
4/F	26.1	**73**	**72**	70	69	69	69	70	70	70	70	70	70	70	70	70	70	70	70	70	68
5/F	29.3	**73**	**72**	**71**	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	68
6/F	32.4	**72**	**72**	**71**	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	68
7/F	35.6	**72**	**72**	**71**	**71**	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	68
8/F	38.7	**72**	**72**	**71**	**71**	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	68
9/F	41.9	**71**	**71**	**71**	**71**	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	68
10/F	45.0	**71**	**71**	**71**	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	68
11/F	48.2	**71**	**71**	**71**	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	68
12/F	51.3	**71**	**71**	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	68
13/F	54.5	**71**	**71**	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	67
14/F	57.6	**71**	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	69	69	67
15/F	60.8	**71**	70	70	70	70	70	70	69	69	69	69	69	69	69	69	69	69	69	69	67
16/F	63.9	70	70	70	70	70	69	69	69	69	69	69	69	69	69	69	69	69	69	69	67
17/F	67.1	70	70	70	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	67
18/F	70.4	70	70	70	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	67
19/F	73.5	70	70	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	67
20/F	76.7	70	70	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	67
21/F	79.8	70	70	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	66
22/F	83.0	70	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	68	66
23/F	86.1	70	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	68	68	66
24/F	89.3	70	69	69	69	69	69	69	69	69	69	69	69	69	69	68	68	68	68	68	66
25/F	92.4	70	69	69	69	69	69	69	69	69	68	69	69	68	68	68	68	68	68	68	66
26/F	95.6	69	69	69	69	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	66
27/F	98.7	69	69	69	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	66
28/F	102.2	69	69	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	66
29/F	105.7	69	69	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	66
30/F	109.2	69	69	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	66
Max Noise Level		**73**	**72**	**71**	**71**	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	68
Exceedance		13				0			0			0			0			0			

Floor	mPD	N1-21	N1-22	N1-23	N1-24	N1-25	N1-26	N1-27	N1-28	N1-29	N1-30	N1-31	N1-32	N1-33	N1-34	N1-35	N1-36	N1-37	N1-38	N1-39	N1-40	N1-41	N1-42	N1-43	N1-44
3/F	23.0	64	47	48	48	48	48	48	48	48	48	48	48	48	48	47	47	47	47	47	47	47	47	48	52
4/F	26.1	66	47	48	48	49	49	49	49	49	49	49	49	49	48	48	48	48	47	47	47	47	48	49	56
5/F	29.3	66	47	50	50	50	50	51	51	51	51	51	51	51	50	49	48	48	48	48	48	48	49	51	57
6/F	32.4	66	48	52	52	53	53	53	53	54	54	54	54	53	52	50	50	50	49	48	49	49	50	54	61
7/F	35.6	66	49	56	56	57	58	58	58	58	58	59	58	58	56	53	52	52	50	49	49	50	51	58	64
8/F	38.7	66	52	58	59	60	60	61	61	61	61	61	61	61	59	55	54	54	51	50	50	51	53	59	65
9/F	41.9	66	55	60	61	61	62	62	62	62	63	63	62	62	60	57	56	56	53	51	52	52	54	60	65
10/F	45.0	66	58	62	62	62	62	63	63	63	63	63	63	62	61	58	57	57	54	53	54	54	56	61	65
11/F	48.2	66	59	62	63	63	63	63	63	63	63	64	63	62	61	59	58	58	56	54	55	56	58	62	66
12/F	51.3	66	60	63	63	63	63	63	64	64	64	64	63	63	62	59	59	59	57	56	57	58	59	62	66
13/F	54.5	66	60	63	63	63	64	64	64	64	64	64	63	63	62	60	60	60	58	57	58	59	60	63	66
14/F	57.6	66	60	63	63	64	64	64	64	64	64	64	64	63	62	61	60	60	59	58	59	60	61	64	67
15/F	60.8	66	60	63	63	64	64	64	64	64	64	64	64	64	63	61	61	61	60	59	60	61	62	64	67
16/F	63.9	66	60	63	63	64	64	64	64	64	64	64	64	64	63	62	61	61	61	60	61	62	63	64	67
17/F	67.1	66	61	63	63	64	64	64	64	64	65	65	64	64	63	62	62	62	61	61	62	62	63	65	67
18/F	70.4	66	61	63	63	64	64	64	64	64	65	65	64	64	63	62	62	62	62	61	62	62	63	65	67
19/F	73.5	66	61	63	64	64	64	64	64	64	65	65	64	64	64	63	62	62	62	62	62	63	63	65	67
20/F	76.7	66	61	63	64	64	64	64	64	64	65	65	65	64	64	63	62	63	62	62	62	63	64	65	67
21/F	79.8	66	61	63	64	64	64	64	64	65	65	65	65	64	64	63	63	63	62	62	62	63	64	65	67
22/F	83.0	66	61	63	64	64	64	64	64	65	65	65	65	64	64	63	63	63	62	62	63	63	64	65	67
23/F	86.1	66	61	63	64	64	64	64	64	65	65	65	65	64	64	63	63	63	63	62	63	63	64	65	67
24/F	89.3	66	61	63	64	64	64	64	64	65	65	65	65	64	64	63	63	63	63	62	63	63	64	65	67
25/F	92.4	66	61	63	64	64	64	64	64	64	65	65	64	64	64	63	63	63	63	62	63	63	64	65	67
26/F	95.6	66	61	63	64	64	64	64	64	64	65	65	64	64	64	63	63	63	63	62	63	63	64	65	67
27/F	98.7	65	61	63	64	64	64	64	64	64	65	65	64	64	64	63	63	63	63	62	63	63	64	65	67
28/F	102.2	65	61	63	64	64	64	64	64	64	65	65	64	64	64	63	63	63	63	62	63	63	64	65	67
29/F	105.7	65	61	63	64	64	64	64	64	64	65	65	64	64	64	63	63	63	63	62	63	63	64	65	67
30/F	109.2	65	61	63	64	64	64	64	64	64	65	65	64	64	64	63	63	63	63	62	63	63	64	65	67
Max Noise Level		66	61	63	64	64	64	64	64	65	65	65	65	64	64	63	63	63	63	62	63	63	64	65	67
Exceedance		0				0			0			0			0			0			0			0	

Predicted Road Traffic Noise at Selected Sensitive Receivers
Mitigated Case (Acoustic Fin) (Combined Case)

Tower 2

Floor	mPD	N2-01	N2-02	N2-03	N2-04	N2-05	N2-06	N2-07	N2-08	N2-09	N2-10	N2-11	N2-12	N2-13	N2-14	N2-15	N2-16	N2-17	N2-18	N2-19	N2-20	N2-21	N2-22	N2-23	N2-24	N2-25	N2-26	N2-27	N2-28	N2-29	N2-30
3/F	23.0	52	53	55	55	55	54	54	53	52	54	54	53	53	54	54	54	54	55	56	56	55	56	56	56	57	57	58	58	59	59
4/F	26.1	54	56	57	57	57	57	56	54	54	55	55	55	55	55	55	56	56	57	57	57	57	57	57	58	58	59	59	60	60	61
5/F	29.3	57	58	59	58	58	58	57	55	55	56	56	56	56	56	56	57	57	58	58	58	58	58	59	59	59	59	60	61	61	62
6/F	32.4	59	59	59	59	58	58	58	56	56	57	57	56	56	57	57	58	58	58	58	59	59	59	59	59	60	60	61	61	62	62
7/F	35.6	59	59	59	59	59	59	58	56	56	57	57	57	57	57	58	58	58	58	59	59	59	59	60	60	60	61	61	62	62	63
8/F	38.7	60	60	60	60	59	59	58	57	57	58	58	58	58	58	58	58	59	59	59	59	59	59	60	61	62	62	62	63	63	63
9/F	41.9	62	61	61	60	60	59	59	58	57	58	58	58	58	58	58	59	59	59	59	59	60	60	61	62	62	63	63	63	64	64
10/F	45.0	62	61	61	61	60	60	59	58	58	59	59	58	58	58	59	59	59	59	59	60	60	60	61	62	63	63	63	64	64	64
11/F	48.2	63	62	61	61	61	60	60	59	58	59	59	59	59	59	59	59	59	59	59	60	60	60	61	62	63	63	64	64	64	65
12/F	51.3	63	62	62	61	61	60	60	59	59	59	59	59	59	59	59	59	59	59	60	60	60	60	61	62	63	63	64	64	64	65
13/F	54.5	63	62	62	61	61	61	60	59	59	60	59	59	59	59	59	59	59	59	60	60	60	60	61	62	63	63	64	64	64	65
14/F	57.6	63	62	62	62	61	61	60	59	59	60	60	59	59	59	59	59	59	59	60	60	60	60	61	62	63	63	63	64	64	65
15/F	60.8	63	62	62	62	61	61	60	60	59	60	60	60	60	59	59	60	60	59	60	60	60	60	61	62	62	63	63	64	64	65
16/F	63.9	63	62	62	62	61	61	61	60	60	60	60	60	60	60	60	60	60	59	60	60	60	60	61	62	62	63	63	64	64	65
17/F	67.1	63	62	62	62	61	61	61	60	60	60	60	60	60	60	60	60	60	59	60	60	60	60	61	62	62	63	63	64	64	65
18/F	70.4	63	62	62	62	61	61	61	60	60	60	60	60	60	60	60	60	60	59	60	60	60	60	61	62	62	63	63	64	64	64
19/F	73.5	63	62	62	62	61	61	61	60	60	60	60	60	60	60	60	60	60	59	60	60	60	60	61	62	62	63	63	64	64	64
20/F	76.7	63	62	62	62	61	61	61	60	60	60	60	60	60	60	60	60	60	59	60	60	60	60	61	62	62	63	63	64	64	64
21/F	79.8	63	62	62	62	61	61	61	60	60	60	60	60	60	60	60	60	60	59	60	60	60	60	61	62	62	63	63	64	64	64
22/F	83.0	63	62	62	62	61	61	61	60	60	60	60	60	60	60	60	60	60	59	60	60	60	60	61	62	62	63	63	63	64	64
23/F	86.1	63	62	62	62	61	61	61	60	60	60	60	60	60	60	60	60	60	59	60	60	60	60	61	61	62	62	63	63	64	64
24/F	89.3	63	62	62	62	61	61	61	60	60	60	60	60	60	60	60	60	60	59	60	60	60	60	61	61	62	62	63	63	64	64
25/F	92.4	63	62	62	62	61	61	60	60	60	60	60	60	60	60	60	60	60	59	60	60	60	60	61	61	62	62	63	63	64	64
26/F	95.6	63	62	62	62	61	61	60	60	60	60	60	60	60	60	60	60	60	59	60	60	60	60	61	61	62	62	63	63	63	64
27/F	98.7	63	62	62	62	61	61	60	60	60	60	60	60	60	60	60	60	60	59	60	60	60	60	61	61	62	62	63	63	63	64
28/F	102.2	63	62	62	62	61	61	61	60	60	60	60	60	60	60	60	60	60	59	60	60	60	60	61	61	62	62	63	63	63	64
29/F	105.7	--	--	--	--	--	--	--	--	60	60	60	60	60	60	60	60	60	59	60	60	60	60	61	61	62	62	63	63	63	64
30/F	109.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	60	60	60	60	60	61	61	62	62	63	63	63	64
Max Noise Level		63	62	62	62	61	61	61	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	61	62	63	63	64	64	64	65
Exceedance			0			0		0			0			0			0			0			0			0			0		0

Floor	mPD	N2-31	N2-32	N2-33	N2-34	N2-35	N2-36	N2-37	N2-38	N2-39	N2-40	N2-41	N2-42	N2-43	N2-44	N2-45	N2-46	N2-47	N2-48	N2-49	N2-50	N2-51	N2-52	N2-53	N2-54	N2-55	N2-56	N2-57	N2-58	N2-59	N2-60
3/F	23.0	60	61	61	62	63	64	64	65	66	67	69	74	70	71	68	71	76	75	70	70	65	66	65	62	71	71	71	72	65	66
4/F	26.1	61	62	62	63	64	65	65	66	67	68	70	73	73	74	73	75	77	77	75	76	72	73	71	69	76	76	76	76	71	72
5/F	29.3	62	63	64	64	65	65	66	66	67	68	70	74	73	74	74	76	77	76	76	76	73	74	73	72	76	76	76	76	73	73
6/F	32.4	63	64	64	65	65	66	66	66	67	68	70	74	73	74	73	75	76	76	75	76	74	74	74	72	76	76	76	76	73	74
7/F	35.6	63	64	64	65	65	66	66	66	67	68	70	73	73	74	73	75	76	76	75	76	74	74	74	72	76	76	76	76	73	74
8/F	38.7	64	64	64	65	65	66	66	66	67	68	69	73	73	74	73	75	76	76	75	76	73	74	73	72	76	76	76	76	73	73
9/F	41.9	64	65	65	65	66	66	66	66	67	68	69	73	73	73	73	75	76	76	75	75	73	74	73	72	76	76	76	76	73	73
10/F	45.0	65	65	65	66	66	66	66	67	67	68	69	73	73	73	72	75	76	75	75	75	73	74	73	72	75	76	76	76	72	73
11/F	48.2	65	65	66	66	66	66	67	67	67	68	69	73	72	73	72	74	75	75	75	75	73	74	73	72	75	75	75	75	72	73
12/F	51.3	65	65	66	66	66	67	67	67	67	68	69	73	72	73	72	74	75	75	75	75	73	74	73	72	75	75	75	75	72	73
13/F	54.5	65	65	66	66	66	67	67	67	67	68	69	72	72	73	72	74	75	75	74	75	73	73	73	72	75	75	75	75	72	72
14/F	57.6	65	65	66	66	66	66	67	67	67	68	69	72	72	73	72	74	75	75	74	75	73	73	72	71	75	75	75	75	72	72
15/F	60.8	65	65	66	66	66	66	67	67	67	68	69	72	72	72	71	74	75	75	74	75	73	73	72	71	75	75	75	75	71	72
16/F	63.9	65	65	65	66	66	66	67	67	67	68	69	72	72	72	71	74	75	75	74	74	72	73	72	71	75	75	75	75	71	72
17/F	67.1	65	65	65	66	66	66	66	67	67	68	69	72	71	72	71	74	75	74	74	74	72	73	72	71	74	74	74	75	71	72
18/F	70.4	65	65	65	66	66	66	66	67	67	68	69	72	71	72	71	73	74	74	74	74	72	73	72	71	74	74	74	74	71	71
19/F	73.5	65	65	65	66	66	66	66	67	67	68	69	72	71	72	71	73	74	74	74	74	72	73	72	71	74	74	74	74	71	71
20/F	76.7	65	65	65	66	66	66	66	67	67	68	69	71	71	72	71	73	74	74	74	74	72	72	71	70	74	74	74	74	71	71
21/F	79.8	65	65	65	66	66	66	66	67	67	67	68	71	71	72	70	73	74	74	73	74	72	72	71	70	74	74	74	74	71	71
22/F	83.0	65	65	65	65	66	66	66	66	67	67	68	71	71	71	70	73	74	74	73	74	72	72	71	70	74	74	74	74	70	71
23/F	86.1	64	65	65	65	66	66	66	66	67	67	68	71	70	71	70	73	74	74	73	73	71	72	71	70	74	74	74	74	70	71
24/F	89.3	64	65	65	65	66	66	66	66	67	67	68	71	70	71	70	73	74	74	73	73	71	72	71	70	73	74	74	74	70	71
25/F	92.4	64	65	65	65	66	66	66	66	67	67	68	71	70	71	70	72	74	73	73	73	71	72	71	70	73	73	73	73	70	71
26/F	95.6	64	65	65	65	65	66	66	66	66	67	68	71	70	71	70	72	73	73	73	73	71	72	71	70	73	73	73	73	70	70
27/F	98.7	64	65	65	65	65	66	66	66	66	67	68	70	70	71	70	72	73	73	73	73	71	72	71	70	73	73	73	73	70	70
28/F	102.2	64	64	65	65	65	66	66	66	66	67	68	70	70	71	69	72	73	73	73	73	71	71	70	69	73	73	73	73	70	70
29/F	105.7	64	64	65	65	65	66	66	66	66	67	68	70	70	71	69	72	73	73	72	73	71	71	70	69	73	73	73	73	69	70
30/F	109.2	64	64	65	65	65	66	66	66	66	67	68	70	70	70	69	72	73	73	72	73	71	71	70	69	73	73	73	73	69	70
Max Noise Level		65	65	66	66	66	67	67	67	67	68	70	74	73	74	74	76	77	77	76	76	74	74	74	72	76	76	76	76	73	74
Exceedance			0		0		0		0		0					28					27				28				28		

Floor	mPD	N2-61	N2-62	N2-63	N2-64	N2-65	N2-66	N2-67	N2-68	N2-69	N2-70	N2-71	N2-72	N2-73	N2-74	N2-75	N2-76	N2-77	N2-78	N2-79	N2-80	N2-81	N2-82	N2-83	N2-84	N2-85
3/F	23.0	61	61	75	75	75	75	70	70	69	70	66	67	66	67	71	74	77	65	77	77	67	67	77	77	66
4/F	26.1	69	69	77	77	77	77	74	75	74	75	72	72	71	72	76	77	77	70	77	77	71	72	77	77	72
5/F	29.3	71	71	77	77	77	77	75	76	76	76	73	73	72	73	77	77	77	70	77	77	72	72	77	77	72
6/F	32.4	72	72	77	77	77	77	75	76	76	76	73	74	73	74	76	76	77	70	77	77	71	72	77	77	72
7/F	35.6	71	72	76	76	77	77	75	76	76	76	73	74	73	73	76	76	77	70	76	77	71	72	77	77	72
8/F	38.7	71	71	76	76	76	76	75	75	75	76	73	74	73	73	76	76	76	70	76	76	71	72	77	77	72
9/F	41.9	71	71	76	76	76	76	75	75	75	75	73	73	73	73	76	76	76	70	76	76	71	71	76	76	72
10/F	45.0	71	71	76	76	76	76	75	75	75	75	73	73	73	73	76	75	76	70	76	76	71	71	76	76	71
11/F	48.2	70	71	76	76	76	76	75	75	75	75	73	73	72	72	75	75	76	69	76	76	71	71	76	76	71
12/F	51.3	70	71	75	76	76	76	74	75	75	75	73	73	72	72	75	75	76	69	75	76	70	71	76	76	71
13/F	54.5	70	70	75	75	75	75	74	74	74	75	72	73	72	72	75	75	76	69	75	76	70	71	76	76	71
14/F	57.6	70	70	75	75	75	75	74	74	74	74	72	73	72	72	75	75	75	69	75	75	70	71	76	76	71
15/F	60.8	70	70	75	75	75	75	74	74	74	74	72	72	72	72	75	74	75	69	75	75	70	70	75	75	71
16/F	63.9	69	70	75	75	75	75	74	74	74	74	72	72	71	71	74	74	75	69	75	75	70	70	75	75	71
17/F	67.1	69	70	75	75	75	75	74	74	74	74	72	72	71	71	74	74	75	69	75	75	70	70	75	75	70
18/F	70.4	69	69	75	75	75	75	73	74	74	74	72	72	71	71	74	74	75	68	75	75	69	70	75	75	70
19/F	73.5	69	69	74	74	74	74	73	74	74	74	71	72	71	71	74	74	75	68	74	75	69	70	75	75	70
20/F	76.7	69	69	74	74	74	74	73	73	73	73	71	72	71	71	74	74	74	68	74	74	69	70	75	75	70
21/F	79.8	69	69	74	74	74	74	73	73	73	73	71	71	71	71	74	73	74	68	74	74	69	70	75	75	70
22/F	83.0	68	69	74	74	74	74	73	73	73	73	71	71	70	70	73	73	74	68	74	74	69	69	74	74	70
23/F	86.1	68	69	74	74	74	74	73	73	73	73	71	71	70	70	73	73	74	68	74	74	69	69	74	74	70
24/F	89.3	68	69	74	74	74	74	73	73	73	73	71	71	70	70	73	73	74	68	74	74	69	69	74	74	69
25/F	92.4	68	68	74	74	74	74	73	73	73	73	71	71	70	70	73	73	74	68	74	74	68	69	74	74	69
26/F	95.6	68	68	73	74	74	74	72	73	73	73	71	71	70	70	73	73	74	67	73	74	68	69	74	74	69
27/F	98.7	68	68	73	73	73	73	72	72	72	73	70	71	70	70	73	73	74	67	73	74	68	69	74	74	69
28/F	102.2	68	68	73	73	73	73	72	72	72	72	70	71	70	70	73	73	73	67	73	73	68	69	74	74	69
29/F	105.7	67	68	73	73	73	73	72	72	72	72	70	70	69	69	73	72	73	67	73	73	68	69	74	74	69
30/F	109.2	67	68	73	73	73	73	72	72	72	72	70	70	--	--	--	--	--	--	--	--	--	--	--	--	--
Max Noise Level		72	72	77	77	77	77	75	76	76	76	73	74	73	74	77	77	77	70	77	77	72	72	77	77	72
Exceedance			28			28				27				27					27				27			

Total no. of Flats:	1068
Total no. of Exceedance:	288
Compliance Level:	73%
Max. Noise Level for Tower:	77

Noted:
Noise level exceed stardand of 70 dB(A)

17/F serves as a refuge floor with no noise sensitive use

Predicted Road Traffic Noise at Selected Sensitive Receivers
Mitigated Case (Acoustic Window (Baffle Type), Enhanced Acoustic Balcony (Baffle Type), Fixed Glazing with or without Maintenance Window, Door with Auto-Closing Mechanism, Acoustic Fin()

Tower 1

Floor	mPD	N1-01	N1-02	N1-03	N1-04	N1-05	N1-06	N1-07	N1-08	N1-09	N1-10	N1-11	N1-12	N1-13	N1-14	N1-15	N1-16	N1-17	N1-18	N1-19	N1-20
3/F	23.0	-	66	65	65	65	65	65	65	65	65	65	65	65	65	66	65	66	66	66	66
4/F	26.1	-	67	70	69	69	69	70	70	70	70	70	70	70	70	70	70	70	70	70	68
5/F	29.3	-	68	67	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	68
6/F	32.4	-	67	67	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	68
7/F	35.6	-	67	67	59	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	68
8/F	38.7	-	67	67	59	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	68
9/F	41.9	-	67	67	59	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	68
10/F	45.0	-	67	67	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	68
11/F	48.2	-	66	66	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	68
12/F	51.3	-	66	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	68
13/F	54.5	-	66	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	67
14/F	57.6	-	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	69	69	67
15/F	60.8	-	70	70	70	70	70	70	69	69	69	69	69	69	69	69	69	69	69	69	67
16/F	63.9	70	70	70	70	70	69	69	69	69	69	69	69	69	69	69	69	69	69	69	67
17/F	67.1	70	70	70	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	67
18/F	70.4	70	70	70	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	67
19/F	73.5	70	70	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	67
20/F	76.7	70	70	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	67
21/F	79.8	70	70	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	66
22/F	83.0	70	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	68	66
23/F	86.1	70	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	68	68	66
24/F	89.3	70	69	69	69	69	69	69	69	69	69	69	69	69	69	68	68	68	68	68	66
25/F	92.4	70	69	69	69	69	69	69	69	69	68	69	69	68	68	68	68	68	68	68	66
26/F	95.6	69	69	69	69	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	66
27/F	98.7	69	69	69	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	66
28/F	102.2	69	69	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	66
29/F	105.7	69	69	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	66
30/F	109.2	69	69	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	66
Max Noise Level		70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	68
Exceedance		0				0			0			0			0			0			

Floor	mPD	N1-21	N1-22	N1-23	N1-24	N1-25	N1-26	N1-27	N1-28	N1-29	N1-30	N1-31	N1-32	N1-33	N1-34	N1-35	N1-36	N1-37	N1-38	N1-39	N1-40	N1-41	N1-42	N1-43	N1-44
3/F	23.0	64	47	48	48	48	48	48	48	48	48	48	48	48	48	47	47	47	47	47	47	47	47	48	52
4/F	26.1	66	47	48	48	49	49	49	49	49	49	49	49	49	48	48	48	48	47	47	47	47	48	49	56
5/F	29.3	66	47	50	50	50	50	51	51	51	51	51	51	51	50	49	48	48	48	48	48	48	49	51	57
6/F	32.4	66	48	52	52	53	53	53	53	54	54	54	54	53	52	50	50	50	49	48	49	49	50	54	61
7/F	35.6	66	49	56	56	57	58	58	58	58	58	59	58	58	56	53	52	52	50	49	49	50	51	58	64
8/F	38.7	66	52	58	59	60	60	61	61	61	61	61	61	61	59	55	54	54	51	50	50	51	53	59	65
9/F	41.9	66	55	60	61	61	62	62	62	62	63	63	62	62	60	57	56	56	53	51	52	52	54	60	65
10/F	45.0	66	58	62	62	62	62	63	63	63	63	63	63	62	61	58	57	57	54	53	54	54	56	61	65
11/F	48.2	66	59	62	63	63	63	63	63	63	63	64	63	62	61	59	58	58	56	54	55	56	58	62	66
12/F	51.3	66	60	63	63	63	63	63	64	64	64	64	63	63	62	59	59	59	57	56	57	58	59	62	66
13/F	54.5	66	60	63	63	63	64	64	64	64	64	64	63	63	62	60	60	60	58	57	58	59	60	63	66
14/F	57.6	66	60	63	63	64	64	64	64	64	64	64	64	63	62	61	60	60	59	58	59	60	61	64	67
15/F	60.8	66	60	63	63	64	64	64	64	64	64	64	64	64	63	61	61	61	60	59	60	61	62	64	67
16/F	63.9	66	60	63	63	64	64	64	64	64	64	64	64	64	63	62	61	61	61	60	61	62	63	64	67
17/F	67.1	66	61	63	63	64	64	64	64	64	65	65	64	64	63	62	62	62	61	61	62	62	63	65	67
18/F	70.4	66	61	63	63	64	64	64	64	64	65	65	64	64	63	62	62	62	62	61	62	62	63	65	67
19/F	73.5	66	61	63	64	64	64	64	64	64	65	65	64	64	64	63	62	62	62	62	62	63	63	65	67
20/F	76.7	66	61	63	64	64	64	64	64	64	65	65	65	64	64	63	62	63	62	62	62	63	64	65	67
21/F	79.8	66	61	63	64	64	64	64	64	65	65	65	65	64	64	63	63	63	62	62	62	63	64	65	67
22/F	83.0	66	61	63	64	64	64	64	64	65	65	65	65	64	64	63	63	63	62	62	63	63	64	65	67
23/F	86.1	66	61	63	64	64	64	64	64	65	65	65	65	64	64	63	63	63	63	62	63	63	64	65	67
24/F	89.3	66	61	63	64	64	64	64	64	65	65	65	65	64	64	63	63	63	63	62	63	63	64	65	67
25/F	92.4	66	61	63	64	64	64	64	64	64	65	65	64	64	64	63	63	63	63	62	63	63	64	65	67
26/F	95.6	66	61	63	64	64	64	64	64	64	65	65	64	64	64	63	63	63	63	62	63	63	64	65	67
27/F	98.7	65	61	63	64	64	64	64	64	64	65	65	64	64	64	63	63	63	63	62	63	63	64	65	67
28/F	102.2	65	61	63	64	64	64	64	64	64	65	65	64	64	64	63	63	63	63	62	63	63	64	65	67
29/F	105.7	65	61	63	64	64	64	64	64	64	65	65	64	64	64	63	63	63	63	62	63	63	64	65	67
30/F	109.2	65	61	63	64	64	64	64	64	64	65	65	64	64	64	63	63	63	63	62	63	63	64	65	67
Max Noise Level		66	61	63	64	64	64	64	64	65	65	65	65	64	64	63	63	63	63	62	63	63	64	65	67
Exceedance		0				0			0			0			0			0			0			0	

Predicted Road Traffic Noise at Selected Sensitive Receivers
Mitigated Case (Acoustic Window (Baffle Type), Enhanced Acoustic Balcony (Baffle Type), Fixed Glazing with or without Maintenance Window, Door with Auto-Closing Mechanism, Acoustic Fin()

Tower 2

Floor	mPD	N2-01	N2-02	N2-03	N2-04	N2-05	N2-06	N2-07	N2-08	N2-09	N2-10	N2-11	N2-12	N2-13	N2-14	N2-15	N2-16	N2-17	N2-18	N2-19	N2-20	N2-21	N2-22	N2-23	N2-24	N2-25	N2-26	N2-27	N2-28	N2-29	N2-30
3/F	23.0	52	53	55	55	55	54	54	53	52	54	54	53	53	54	54	54	54	55	56	56	55	56	56	56	57	57	58	58	59	59
4/F	26.1	54	56	57	57	57	57	56	54	54	55	55	55	55	55	55	56	56	57	57	57	57	57	57	58	58	59	59	60	60	61
5/F	29.3	57	58	59	58	58	58	57	55	55	56	56	56	56	56	56	57	57	58	58	58	58	58	59	59	59	59	60	61	61	62
6/F	32.4	59	59	59	59	58	58	58	56	56	57	57	56	56	57	57	58	58	58	58	59	59	59	59	59	60	60	61	61	62	62
7/F	35.6	59	59	59	59	59	59	58	56	56	57	57	57	57	57	58	58	58	58	59	59	59	59	60	60	60	61	61	62	62	63
8/F	38.7	60	60	60	60	59	59	58	57	57	58	58	58	58	58	58	58	59	59	59	59	59	59	60	61	62	62	62	63	63	63
9/F	41.9	62	61	61	60	60	59	59	58	57	58	58	58	58	58	58	59	59	59	59	59	60	60	61	62	62	63	63	63	64	64
10/F	45.0	62	61	61	61	60	60	59	58	58	59	59	58	58	58	59	59	59	59	59	60	60	60	61	62	63	63	63	64	64	64
11/F	48.2	63	62	61	61	61	60	60	59	58	59	59	59	59	59	59	59	59	59	59	60	60	60	61	62	63	63	64	64	64	65
12/F	51.3	63	62	62	61	61	60	60	59	59	59	59	59	59	59	59	59	59	59	60	60	60	60	61	62	63	63	64	64	64	65
13/F	54.5	63	62	62	61	61	61	60	59	59	60	59	59	59	59	59	59	59	59	60	60	60	60	61	62	63	63	64	64	64	65
14/F	57.6	63	62	62	62	61	61	60	59	59	60	60	59	59	59	59	59	59	59	60	60	60	60	61	62	63	63	63	64	64	65
15/F	60.8	63	62	62	62	61	61	60	60	59	60	60	60	60	59	59	60	60	59	60	60	60	60	61	62	62	63	63	64	64	65
16/F	63.9	63	62	62	62	61	61	61	60	60	60	60	60	60	60	60	60	60	59	60	60	60	60	61	62	62	63	63	64	64	65
17/F	67.1	63	62	62	62	61	61	61	60	60	60	60	60	60	60	60	60	60	59	60	60	60	60	61	62	62	63	63	64	64	65
18/F	70.4	63	62	62	62	61	61	61	60	60	60	60	60	60	60	60	60	60	59	60	60	60	60	61	62	62	63	63	64	64	64
19/F	73.5	63	62	62	62	61	61	61	60	60	60	60	60	60	60	60	60	60	59	60	60	60	60	61	62	62	63	63	64	64	64
20/F	76.7	63	62	62	62	61	61	61	60	60	60	60	60	60	60	60	60	60	59	60	60	60	60	61	62	62	63	63	64	64	64
21/F	79.8	63	62	62	62	61	61	61	60	60	60	60	60	60	60	60	60	60	59	60	60	60	60	61	62	62	63	63	64	64	64
22/F	83.0	63	62	62	62	61	61	61	60	60	60	60	60	60	60	60	60	60	59	60	60	60	60	61	62	62	63	63	64	64	64
23/F	86.1	63	62	62	62	61	61	61	60	60	60	60	60	60	60	60	60	60	59	60	60	60	60	61	61	62	62	63	63	64	64
24/F	89.3	63	62	62	62	61	61	61	60	60	60	60	60	60	60	60	60	60	59	60	60	60	60	61	61	62	62	63	63	64	64
25/F	92.4	63	62	62	62	61	61	60	60	60	60	60	60	60	60	60	60	60	59	60	60	60	60	61	61	62	62	63	63	64	64
26/F	95.6	63	62	62	62	61	61	60	60	60	60	60	60	60	60	60	60	60	59	60	60	60	60	61	61	62	62	63	63	63	64
27/F	98.7	63	62	62	62	61	61	60	60	60	60	60	60	60	60	60	60	60	59	60	60	60	60	61	61	62	62	63	63	63	64
28/F	102.2	63	62	62	62	61	61	61	60	60	60	60	60	60	60	60	60	60	59	60	60	60	60	61	61	62	62	63	63	63	64
29/F	105.7	--	--	--	--	--	--	--	--	60	60	60	60	60	60	60	60	60	59	60	60	60	60	61	61	62	62	63	63	63	64
30/F	109.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	60	60	60	60	60	61	61	62	62	63	63	63	64
Max Noise Level		63	62	62	62	61	61	61	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	61	62	63	63	64	64	64	65
Exceedance		0			0		0			0			0			0			0			0			0			0		0	

Floor	mPD	N2-31	N2-32	N2-33	N2-34	N2-35	N2-36	N2-37	N2-38	N2-39	N2-40	N2-41	N2-42	N2-43	N2-44	N2-45	N2-46	N2-47	N2-48	N2-49	N2-50	N2-51	N2-52	N2-53	N2-54	N2-55	N2-56	N2-57	N2-58	N2-59	N2-60
3/F	23.0	60	61	61	62	63	64	64	65	66	67	69	69	-	65	-	66	-	67	70	70	65	66	65	62	-	62	63	-	65	66
4/F	26.1	61	62	62	63	64	65	65	66	67	68	70	69	-	68	-	70	-	68	67	-	66	69	67	69	-	68	68	-	65	68
5/F	29.3	62	63	64	64	65	65	66	66	67	68	70	69	-	68	-	70	-	68	67	-	67	70	69	66	-	68	68	-	67	69
6/F	32.4	63	64	64	65	65	66	66	66	67	68	70	69	-	68	-	70	-	68	67	-	68	70	70	66	-	68	68	-	67	70
7/F	35.6	63	64	64	65	65	66	66	66	67	68	70	69	-	68	-	70	-	68	67	-	68	70	70	66	-	68	68	-	67	70
8/F	38.7	64	64	64	65	65	66	66	66	67	68	69	69	-	68	-	70	-	67	67	-	67	70	69	66	-	68	68	-	67	69
9/F	41.9	64	65	65	65	66	66	66	66	67	68	69	69	-	68	-	69	-	67	67	-	67	70	69	66	-	67	67	-	67	69
10/F	45.0	65	65	65	66	66	66	66	67	67	68	69	68	-	67	-	69	-	67	67	-	67	70	69	66	-	67	67	-	66	69
11/F	48.2	65	65	66	66	66	66	67	67	67	68	69	68	-	67	-	69	-	67	67	-	67	70	69	66	-	67	67	-	66	69
12/F	51.3	65	65	66	66	66	67	67	67	67	68	69	68	-	67	-	69	-	67	66	-	67	70	69	66	-	67	67	-	66	69
13/F	54.5	65	65	66	66	66	67	67	67	67	68	69	68	-	67	-	69	-	67	66	-	67	69	69	66	-	67	67	-	66	68
14/F	57.6	65	65	66	66	66	66	67	67	67	68	69	68	-	67	-	69	-	66	66	-	67	69	68	65	-	67	67	-	66	68
15/F	60.8	65	65	66	66	66	66	67	67	67	68	69	68	-	67	-	69	-	66	66	-	67	69	68	65	-	67	66	-	65	68
16/F	63.9	65	65	65	66	66	66	67	67	67	68	69	67	-	66	-	68	-	66	66	-	66	69	68	65	-	66	66	-	65	68
17/F	67.1	65	65	65	66	66	66	66	67	67	68	69	67	-	66	-	68	-	66	66	-	66	69	68	65	-	66	66	-	65	68
18/F	70.4	65	65	65	66	66	66	66	67	67	68	69	67	-	66	-	68	-	66	66	-	66	69	68	65	-	66	66	-	65	67
19/F	73.5	65	65	65	66	66	66	66	67	67	68	69	67	-	66	-	68	-	66	65	-	66	69	68	65	-	66	66	-	65	67
20/F	76.7	65	65	65	66	66	66	66	67	67	68	69	67	-	66	-	68	-	66	65	-	66	68	67	70	-	66	66	-	65	67
21/F	79.8	65	65	65	66	66	66	66	66	67	67	68	67	-	66	-	68	-	65	65	-	66	68	67	70	-	66	66	-	65	67
22/F	83.0	65	65	65	65	66	66	66	66	67	67	68	66	-	66	-	67	-	65	65	-	66	68	67	70	-	66	65	-	70	67
23/F	86.1	64	65	65	65	66	66	66	66	67	67	68	66	-	65	-	67	-	65	65	-	65	68	67	70	-	65	65	-	70	67
24/F	89.3	64	65	65	65	66	66	66	66	67	67	68	66	-	65	-	67	-	65	65	-	65	68	67	70	-	65	65	-	70	67
25/F	92.4	64	65	65	65	66	66	66	66	67	67	68	66	-	65	-	67	-	65	65	-	65	68	67	70	-	65	65	-	70	67
26/F	95.6	64	65	65	65	65	66	66	66	66	67	68	66	-	65	-	67	-	65	65	-	65	68	67	70	-	65	65	-	70	70
27/F	98.7	64	65	65	65	65	66	66	66	66	67	68	70	70	65	-	67	-	65	65	-	65	68	67	70	-	65	65	-	70	70
28/F	102.2	64	64	65	65	65	66	66	66	66	67	68	70	70	65	-	67	-	65	64	-	65	67	70	69	-	65	65	-	70	70
29/F	105.7	64	64	65	65	65	66	66	66	66	67	68	70	70	65	-	67	-	65	64	-	65	67	70	69	-	65	65	-	69	70
30/F	109.2	64	64	65	65	65	66	66	66	66	67	68	70	70	70	69	67	-	64	64	-	65	67	70	69	-	65	64	-	69	70
Max Noise Level		65	65	66	66	66	67	67	67	67	68	70	70	70	70	69	70	0	68	70	70	68	70	70	70	0	68	68	0	70	70
Exceedance		0		0		0		0		0			0							0				0				0		

Floor	mPD	N2-61	N2-62	N2-63	N2-64	N2-65	N2-66	N2-67	N2-68	N2-69	N2-70	N2-71	N2-72	N2-73	N2-74	N2-75	N2-76	N2-77	N2-78	N2-79	N2-80	N2-81	N2-82	N2-83	N2-84	N2-85
3/F	23.0	61	61	-	66	66	-	70	70	69	70	66	67	66	67	64	-	69	65	-	-	67	67	-	-	66
4/F	26.1	69	69	-	68	68	-	69	69	66	-	68	66	61	68	68	-	69	70	-	-	66	66	-	-	66
5/F	29.3	68	65	-	68	68	-	70	70	67	-	70	67	62	69	69	-	69	70	-	-	66	67	-	-	66
6/F	32.4	68	65	-	68	68	-	70	70	67	-	70	68	63	69	69	-	69	70	-	-	66	66	-	-	66
7/F	35.6	68	65	-	68	68	-	70	70	67	-	70	68	63	69	68	-	68	70	-	-	66	66	-	-	66
8/F	38.7	68	65	-	68	68	-	70	70	67	-	70	68	63	69	68	-	68	70	-	-	66	66	-	-	66
9/F	41.9	68	65	-	67	68	-	70	70	66	-	70	68	63	69	68	-	68	70	-	-	65	66	-	-	66
10/F	45.0	67	65	-	67	67	-	70	69	66	-	70	67	63	68	68	-	68	70	-	-	65	66	-	-	65
11/F	48.2	70	64	-	67	67	-	70	69	66	-	70	67	62	68	68	-	68	69	-	-	65	65	-	-	65
12/F	51.3	70	64	-	67	67	-	69	69	66	-	69	67	62	68	67	-	67	69	-	-	70	65	-	-	65
13/F	54.5	70	70	-	67	67	-	69	69	66	-	69	67	62	68	67	-	67	69	-	-	70	65	-	-	65
14/F	57.6	70	70	-	66	67	-	69	69	66	-	69	67	62	68	67	-	67	69	-	-	70	65	-	-	65
15/F	60.8	70	70	-	66	67	-	69	69	65	-	69	66	62	67	67	-	67	69	-	-	70	70	-	-	65
16/F	63.9	69	70	-	66	66	-	69	68	65	-	69	66	61	67	67	-	67	69	-	-	70	70	-	-	64
17/F	67.1	69	70	-	66	66	-	69	68	65	-	68	66	61	67	67	-	67	69	-	-	70	70	-	-	70
18/F	70.4	69	69	-	66	66	-	68	68	65	-	68	66	61	67	66	-	66	68	-	-	69	70	-	-	70
19/F	73.5	69	69	-	66	66	-	68	68	65	-	68	66	61	67	66	-	66	68	-	-	69	70	-	-	70
20/F	76.7	69	69	-	66	66	-	68	68	65	-	68	66	61	66	66	-	66	68	-	-	69	70	-	-	70
21/F	79.8	69	69	-	65	66	-	68	68	64	-	68	66	61	66	66	-	66	68	-	-	69	70	-	-	70
22/F	83.0	68	69	-	65	66	-	68	68	64	-	68	65	70	70	66	-	66	68	-	-	69	69	-	-	70
23/F	86.1	68	69	-	65	65	-	68	67	64	-	68	65	70	70	66	-	66	68	-	-	69	69	-	-	70
24/F	89.3	68	69	-	65	65	-	68	67	64	-	67	65	70	70	65	-	66	68	-	-	69	69	-	-	69
25/F	92.4	68	68	-	65	65	-	68	67	64	-	67	65	70	70	65	-	66	68	-	-	68	69	-	-	69
26/F	95.6	68	68	-	65	65	-	67	67	64	-	67	65	70	70	65	-	65	67	-	-	68	69	-	-	69
27/F	98.7	68	68	-	65	65	-	67	67	64	-	70	65	70	70	65	-	65	67	-	-	68	69	-	-	69
28/F	102.2	68	68	-	65	65	-	67	67	64	-	70	65	70	70	65	-	65	67	-	-	68	69	-	-	69
29/F	105.7	67	68	-	64	65	-	67	67	63	-	70	70	69	69	65	-	65	67	-	-	68	69	-	-	69
30/F	109.2	67	68	-	64	65	-	67	67	63	-	70	70	--	--	--	--	--	--	--	--	--	--	--	--	--
Max Noise Level		70	70	0	68	68	0	70	70	69	70	70	70	70	70	69	0	69	70	0	0	70	70	0	0	70
Exceedance		0				0				0				0					0				0			

Total no. of Flats:	1068
Total no. of Exceedance:	0
Compliance Level:	100%
Max. Noise Level for Tower:	70

17/F serves as a refuge floor with no noise sensitive use

Noted:

71	Noise level exceed stardand of 70 dB(A)
	Acoustic Window (Baffle Type)
	Enhanced Acoustic Balcony (Baffle Type)
-	Fixed Glazing with or without Maintenance Window
-	Door with Auto-Closing Mechanism

Appendix 3-3 Estimation of Road Traffic Sound Attenuation of Acoustic Window (Baffle Type) and Enhanced Acoustic Balcony (Baffle Type)

Road Traffic Noise Impact Assessment

Acoustic Window (Baffle Type) and Enhanced Acoustic Balcony (Baffle Type) for Residential Tower

Summary Table of Major Parameters of Reference Case and Maximum Sound Attenuation Available

Name	Outer opening width, mm	Outer opening height, mm	Outer opening area, m^2	Air gap, mm	Overlapping length, mm	MPA Applied	Solid Parapet Applied	Acoustic Ceiling Applied	Additional SAM	Room Area, m^2	Maximum Noise Reduction Available, dB(A)
Acoustic Window (Baffle Type)											
AW1-PN	600	870	0.5	100	100	No	-	-	No	8.0	6.0
AW2-PN	750	1500	1.1	100	100	No	-	-	No	18.0	7.0
Enhanced Acoustic Balcony (Baffle Type)											
EAB1-PN	1150	2210	2.5	100	100	No	Yes	Yes	No	14.0	8.0
EAB2-PN	1150	2210	2.5	100	100	No	Yes	Yes	No	18.0	9.0

Note:

MPA: Micro Perforated Absorber

Solid Parapet: Minimum 1440mm (W) x 1450mm (H) for room area of $14m^2$ or minimum 2055mm (W) x 1450mm (H) for room area of $18m^2$ parallel to door opening

SAM: Sound Absoptive Material

Acoustic Ceiling: Balcony ceiling to be covered by SAM

Road Traffic Noise Impact Assessment

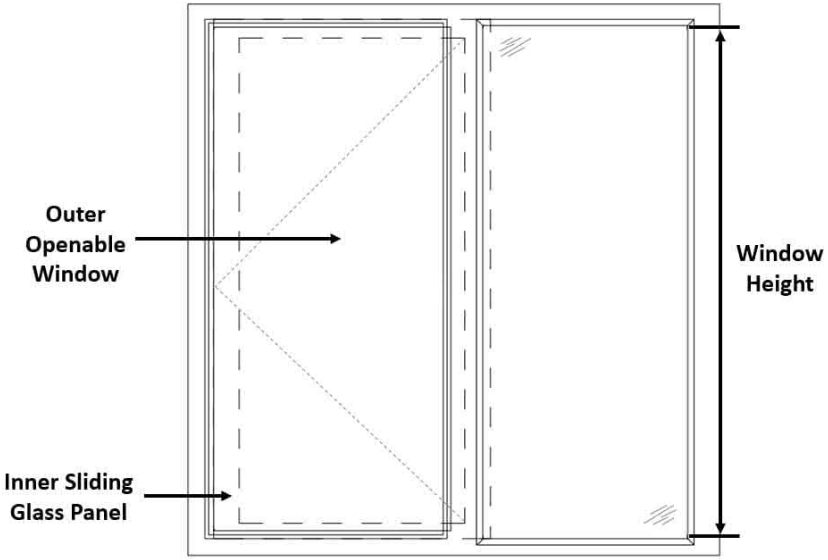
Acoustic Window (Baffle Type) and Enhanced Acoustic Balcony (Baffle Type) for Residential Tower

Table of Major Parameters, Room Size and Sound Attenuation Adjustment of "Proposed Case for Proposed Development" and "Corresponding Reference Case"

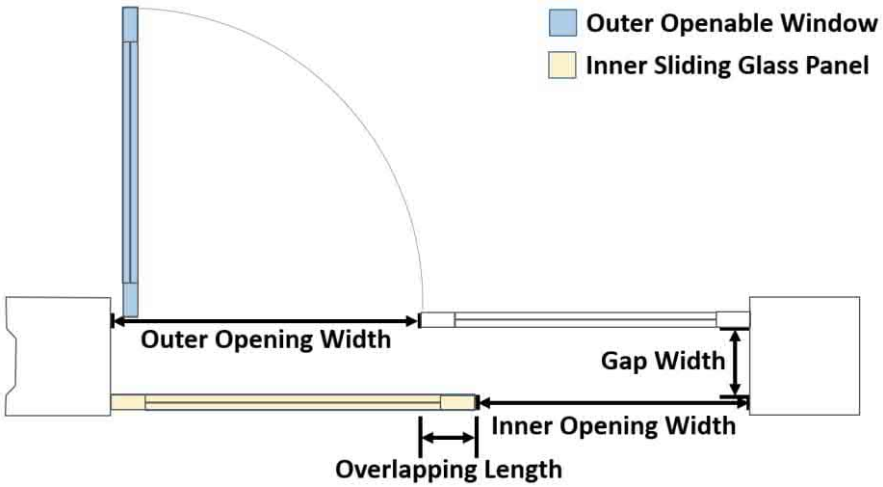
					Proposed Development						Reference Case																
Tower	Room	Opening	NSRs	Case	Outer opening area, m^2	Air gap, mm	Overlapping length, mm	MPA applied?	SAM applied	Room area (RA), m^2	Outer opening width, mm	Outer opening height, mm	Outer opening area, m^2	Air gap, mm	Overlapping length, mm	MPA applied?	Room area (RAref), m^2	Ref. sound attenuation, dB(A)	Room Size Adjustment: 10xlog(RA / RAref) (adjust downward only), dB(A)	Adjusted sound attenuation, dB(A)	Incident angle, deg	Window / Door: Extra sound attenuation from incident angle, dB(A)	Window / Door: Extra sound attenuation with SAM, dB(A)	Window: 1.5m Fin	Window: Extra sound attenuation with 1.5m Fin, dB(A)	Relative Noise Reduction, dB(A)	Noise Reduction Required, dB(A)
1	BR	W	N1-02	AW2-PN	**1.1**	100	100	No	Yes	8.2	750	1500	**1.1**	100	100	No	18.00	7.0	-3.4	3.6	90	1.0	0	No	0	4.6	**1.7**
1	BR	W	N1-03	AW1-PN	**0.5**	100	100	No	Yes	4.2	600	870	**0.5**	100	100	No	8.00	6.0	-2.8	3.2	90	1.0	0	No	0	4.2	**0.9**
1	LIV	D	N1-04	EAB2-PN	**2.5**	100	100	No	Yes	14.9	1150	2210	**2.5**	100	100	No	18.00	9.0	-0.8	8.2	90	3.0	0	No	0	11.2	**0.2**
2	BR	W	N2-42	AW2-PN	**1.1**	100	100	No	Yes	8.2	750	1500	**1.1**	100	100	No	18.00	7.0	-3.4	3.6	90	1.0	0	No	0	4.6	**3.2**
2	BR	W	N2-44	AW1-PN	**0.5**	100	100	No	Yes	6.1	600	870	**0.5**	100	100	No	8.00	6.0	-1.2	4.8	90	1.0	0	No	0	5.8	**3.7**
2	BR	W	N2-46	AW1-PN	**0.5**	100	100	No	Yes	5.4	600	870	**0.5**	100	100	No	8.00	6.0	-1.7	4.3	90	1.0	0	No	0	5.3	**5.1**
2	LIV	D	N2-48	EAB2-PN	**2.5**	100	100	No	Yes	15.6	1150	2210	**2.5**	100	100	No	18.00	9.0	-0.6	8.4	0	0.0	0	No	0	8.4	**6.1**
2	LIV	D	N2-49	EAB2-PN	**2.5**	100	100	No	Yes	15.1	1150	2210	**2.5**	100	100	No	18.00	9.0	-0.8	8.2	0	0.0	0	No	0	8.2	**5.1**
2	BR	W	N2-51	AW1-PN	**0.5**	100	100	No	Yes	6.3	600	870	**0.5**	100	100	No	8.00	6.0	-1.0	5.0	90	1.0	0	No	0	6.0	**3.2**
2	BR	W	N2-52	AW1-PN	**0.5**	100	100	No	Yes	5.0	600	870	**0.5**	100	100	No	8.00	6.0	-2.0	4.0	0	0.0	0	No	0	4.0	**3.9**
2	BR	W	N2-53	AW1-PN	**0.5**	100	100	No	Yes	5.0	600	870	**0.5**	100	100	No	8.00	6.0	-2.0	4.0	0	0.0	0	No	0	4.0	**3.2**
2	BR	W	N2-54	AW1-PN	**0.5**	100	100	No	Yes	6.3	600	870	**0.5**	100	100	No	8.00	6.0	-1.0	5.0	90	1.0	0	No	0	6.0	**2.0**
2	LIV	D	N2-56	EAB2-PN	**2.5**	100	100	No	Yes	14.9	1150	2210	**2.5**	100	100	No	18.00	9.0	-0.8	8.2	0	0.0	0	No	0	8.2	**5.7**
2	LIV	D	N2-57	EAB2-PN	**2.5**	100	100	No	Yes	15.5	1150	2210	**2.5**	100	100	No	18.00	9.0	-0.6	8.4	0	0.0	0	No	0	8.4	**5.8**
2	BR	W	N2-59	AW1-PN	**0.5**	100	100	No	Yes	6.3	600	870	**0.5**	100	100	No	8.00	6.0	-1.0	5.0	90	1.0	0	No	0	6.0	**2.5**
2	BR	W	N2-60	AW1-PN	**0.5**	100	100	No	Yes	5.0	600	870	**0.5**	100	100	No	8.00	6.0	-2.0	4.0	0	0.0	0	No	0	4.0	**3.1**
2	BR	W	N2-61	AW1-PN	**0.5**	100	100	No	Yes	4.3	600	870	**0.5**	100	100	No	8.00	6.0	-2.7	3.3	0	0.0	0	No	0	3.3	**1.1**
2	BR	W	N2-62	AW1-PN	**0.5**	100	100	No	Yes	6.8	600	870	**0.5**	100	100	No	8.00	6.0	-0.7	5.3	90	1.0	0	No	0	6.3	**1.2**
2	LIV	D	N2-64	EAB2-PN	**2.5**	100	100	No	Yes	16.8	1150	2210	**2.5**	100	100	No	18.00	9.0	-0.3	8.7	0	0.0	0	No	0	8.7	**6.3**
2	LIV	D	N2-65	EAB2-PN	**2.5**	100	100	No	Yes	15.9	1150	2210	**2.5**	100	100	No	18.00	9.0	-0.5	8.5	0	0.0	0	No	0	8.5	**6.5**
2	BR	W	N2-67	AW1-PN	**0.5**	100	100	No	Yes	6.3	600	870	**0.5**	100	100	No	8.00	6.0	-1.0	5.0	0	0.0	0	No	0	5.0	**4.9**
2	BR	W	N2-68	AW1-PN	**0.5**	100	100	No	Yes	5.6	600	870	**0.5**	100	100	No	8.00	6.0	-1.5	4.5	90	1.0	0	No	0	5.5	**5.2**
2	LIV	D	N2-69	EAB1-PN	**2.5**	100	100	No	Yes	13.5	1150	2210	**2.5**	100	100	No	14.00	8.0	-0.2	7.8	90	1.0	0	No	0	8.8	**5.3**
2	BR	W	N2-71	AW1-PN	**0.5**	100	100	No	Yes	4.3	600	870	**0.5**	100	100	No	8.00	6.0	-2.7	3.3	0	0.0	0	No	0	3.3	**3.0**
2	BR	W	N2-72	AW1-PN	**0.5**	100	100	No	Yes	6.2	600	870	**0.5**	100	100	No	8.00	6.0	-1.1	4.9	75	1.0	0	No	0	5.9	**3.3**
2	LIV	D	N2-73	EAB2-PN	**2.5**	100	100	No	Yes	18.3	1150	2210	**2.5**	100	100	No	18.00	9.0	0.0	9.0	51	1.0	0	No	0	10.0	**2.7**
2	BR	W	N2-74	AW1-PN	**0.5**	100	100	No	Yes	4.2	600	870	**0.5**	100	100	No	8.00	6.0	-2.8	3.2	51	1.0	0	No	0	4.2	**3.1**
2	BR	W	N2-75	AW1-PN	**0.5**	100	100	No	Yes	4.2	600	870	**0.5**	100	100	No	8.00	6.0	-2.8	3.2	90	1.0	1.5	Yes	2.0	7.7	**6.1**
2	BR	W	N2-77	AW1-PN	**0.5**	100	100	No	Yes	7.7	600	870	**0.5**	100	100	No	8.00	6.0	-0.2	5.8	53	1.0	1.5	No	0	8.3	**7.0**
2	BR	W	N2-81	AW1-PN	**0.5**	100	100	No	Yes	5.6	600	870	**0.5**	100	100	No	8.00	6.0	-1.5	4.5	90	1.0	0	No	0	5.5	**1.1**
2	BR	W	N2-82	AW1-PN	**0.5**	100	100	No	Yes	5.6	600	870	**0.5**	100	100	No	8.00	6.0	-1.5	4.5	90	1.0	0	No	0	5.5	**1.6**
2	LIV	W	N2-85	AW2-PN	**1.1**	100	100	No	Yes	11.7	750	1500	**1.1**	100	100	No	18.00	7.0	-1.9	5.1	90	1.0	0	No	0	6.1	**1.9**

Appendix 3-4 Indicative Design of Acoustic Window and Enhanced Acoustic Balcony (Baffle Type) for Proposed Development

(I) Possible design of "Acoustic Window (Baffle Type)" for 8m^2 and 18m^2 habitable rooms (i.e. dining room, living room or bedroom)



INTERNAL VIEW (NOT TO SCALE)



PLAN (NOT TO SCALE)

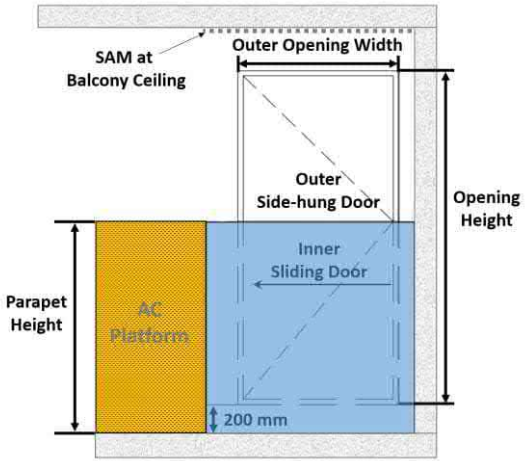
Possible Designs of "Acoustic Window (Baffle Type)" for 8m^2 and 18m^2 rooms					
Room Size (m^2)	**Room Dimensions (mm^3)**	**Inner Window Opening (mm^2)**	**Outer Window Opening (mm^2)**	**Overlapping Length (mm)**	**Gap Width (mm)**
8	**3200 (W) x 2500 (D) x 3400 (H)**	**580 (W) x 870 (H)**	**600 (W) x 870 (H)**	**≥ 100**	**100 to 175**
18	**5300 (W) x 3390 (D) x 3400 (H)**	**750 (W) x 1500 (H)**	**750 (W) x 1500 (H)**	**≥ 100**	**100 to 175**

Notes:

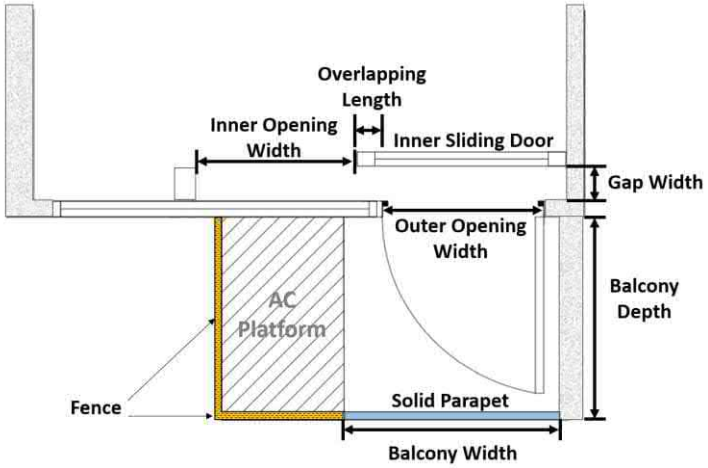
a. These are feasible designs of AW(BT) for 8m^2 and 18m^2 rooms.

b. For optimum performance of noise reduction, the air gap should have a pane-to-pane overlapping length of ≥ 100mm and a gap width between 100mm and 175mm, with the inner sliding glass panel in a closed position. The window pane shall be ≥ 6mm in thickness.

(II) Possible designs of "Enhanced Acoustic Balcony (Baffle Type)" in 14m² and 18m² habitable rooms (i.e. dining room, living room or bedroom)



EXTERNAL VIEW (NOT TO SCALE)



PLAN (NOT TO SCALE)

Fence (≥ 70% Permeability) Solid Parapet

Possible Designs of "Enhanced Acoustic Balcony (Baffle Type)" for 14m² and 18m² rooms								
Room size (m²)	**Room Dimensions (mm³)**	**Balcony Width (mm)**	**Balcony Depth (mm)**	**Parapet Height (mm)**	**Inner Opening (mm²)**	**Outer Opening (mm²)**	**Overlapping Length (mm)**	**Gap Width (mm)**
14	**3400 (W) x 4100 (D) x 3100 (H)**	**≥ 1440**	**≥ 1300**	**≥ 1450**	**1025 (W) x 2210 (H)**	**1150 (W) x 2210 (H)**	**≥ 100**	**100**
18	**5300 (W) x 3390 (D) x 3400 (H)**	**≥ 2055**	**≥ 1300**	**≥ 1450**	**1150 (W) x 2210 (H)**	**1150 (W) x 2210 (H)**	**≥ 100**	**100**

Notes:

1. These are feasible designs of EAB for 14m² and 18m² rooms. The room with EAB should meet the natural lighting and ventilation requirements in regulations 30 & 31 of the Building (Planning) Regulations (B(P)R). The AC platform should comply with the requirements under Appendix B of Code of Practice on Access for External Maintenance 2021 (AfEM Code), and balconies for residential buildings should comply with the criteria and conditions set out in Joint Practice Note (JPN) 1 for application of exemption from gross floor area and/or site coverage under the B(P)R.

2. SAM at balcony ceiling refers to sound absorptive material of noise reduction coefficient ≥ 0.7. It is an essential feature to attain the basic noise reduction performance in Annex B.

3. Comparable noise performance is anticipated should the AC platform be replaced by balcony with solid parapet.

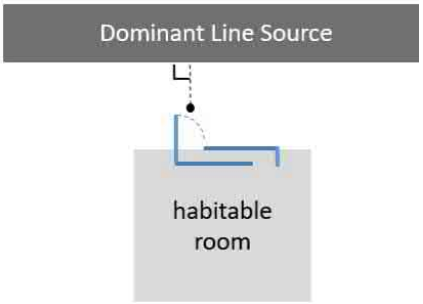
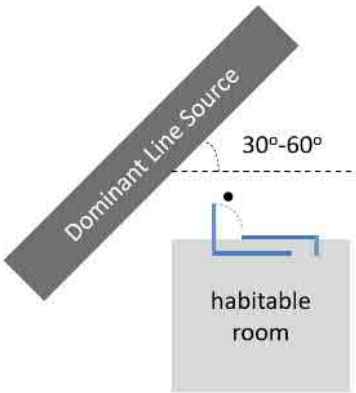
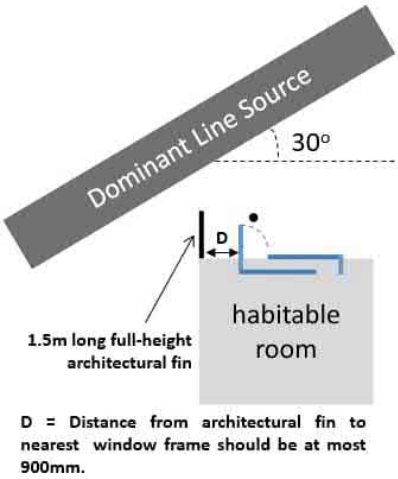
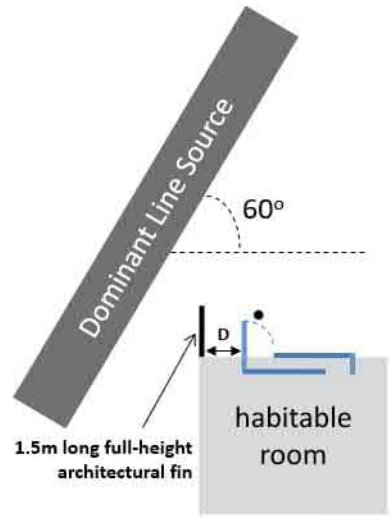
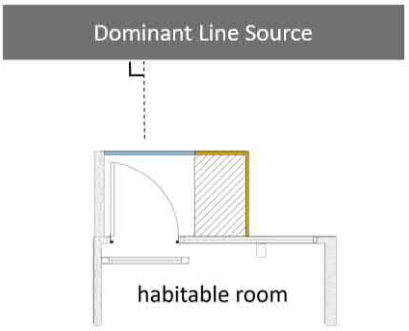
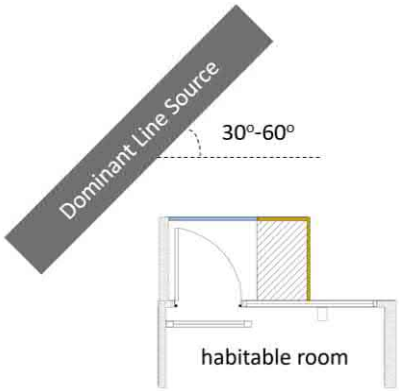
Table 1: Summary on RNR of Acoustic Window (Baffle Type) (for use in NIA) ***Plan not to scale**		**Correction dB(A) L10(1hr)**	
		8m²	**18m²**
	**(a) Provision of AW(BT) parallel to dominant line source** (whichever side the outer side-hung window is)	- **6.0** - **7.5** **(added SAM[1])**	- **7.0** - **8.5** **(added SAM[1])**
	**(b) Tilting the AW(BT) in (a) above to 30° - 60° horizontal incident angle to dominant line source** (whichever side the outer side-hung window is)	- **7.0** - **8.5** **(added SAM[1])**	- **8.0** - **9.5** **(added SAM[1])**
	**(b1) If tilted AW(BT) is at 30° horizontal incident angle to dominant line source** **+ 1.5m long full-height architectural fin[2]** *** AW(BT) + architectural fin should be considered as ONE package of noise mitigation measures. Outer side-hung window of AW(BT) and architectural fin should be installed at the side nearer to dominant line source.**	- **8.0** - **9.5** **(added SAM[1])**	- **9.0** - **10.5** **(added SAM[1])**

Table 1: Summary on RNR of Acoustic Window (Baffle Type) (for use in NIA) *Plan not to scale		Correction dB(A) L10(1hr)	
		8m²	18m²
 D = Distance from architectural fin to nearest window frame should be at most 900mm.	**(b2) If tilted AW(BT) is at 60° horizontal incident angle to dominant line source** **+ 1.5m long full-height architectural fin[2]** *** AW(BT) + architectural fin should be considered as ONE package of noise mitigation measures. Outer side-hung window of AW(BT) and architectural fin should be installed at the side nearer to dominant line source.**	**- 9.0** **- 10.5 (added SAM[1])**	**- 10.0** **- 11.5 (added SAM[1])**

Note 1: The additional Sound Absorptive Material (SAM) shall be of Noise Reduction Coefficient ≥ 0.7 and applied at top and outer opening side of mullion. The material of SAM is subject to the requirements of section 3 of Building (Construction) Regulation.

Note 2: The 1.5m long full-height architectural fin may be subject to the requirements for natural lighting and ventilation, gross floor area and site coverage under the B(P)R.

Table 2: Summary on RNR of Enhanced Acoustic Balcony (Baffle Type) (for use in NIA) *Plan not to scale		Correction dB(A) L10(1hr)	
		14m²	18m²
	**(a) Provision of EAB(BT) parallel to dominant line source**	**- 8.0** **- 9.5 (added SAM[1])**	**- 9.0** **- 10.5 (added SAM[1])**
	**(b) Tilting the EAB(BT) in (a) above to 30° - 60° horizontal incident angle to dominant line source**	**- 11.0** **- 12.5 (added SAM[1])**	**- 11.0** **- 12.5 (added SAM[1])**
Note 1: The additional Sound Absorptive Material (SAM) shall be of Noise Reduction Coefficient ≥ 0.7 and applied at top and outer opening side of the mullion. The material of SAM is subject to the requirements of section 3 of Building (Construction) Regulation.			

[i] *Should there be any variation on the proposed INMD, or practitioners and professionals consider that a higher RNR value should be adopted, justifications together with technical documents, e.g. corrections based on acoustic principles, laboratory testing reports, in-situ measurement reports, etc. should be submitted to the EPD for consideration. For requirements of laboratory measurement or in-situ measurement requirements, practitioners and professionals may contact the EPD for further details. As RNR varies with room size, practitioners and professionals may like to propose the preferred RNR to the EPD for consideration if different room size is encountered in the NIA study. Having said that, information indicates that for* ***Tables 1 and 2****:*

- *Variations of room size within +/- 10% would not affect the RNR;*
- *Variations of floor-to-ceiling height within +/- 5% would not affect the RNR; and*
- *Variations of window / door opening size within +/- 5% would not affect the RNR.*

Appendix 4-1 Correspondence from MTRC

MTR Corporation Limited
香港鐵路有限公司
www.mtr.com.hk

MTR

Ramboll Hong Kong Limited
21/F, BEA Harbour View Centre,
56 Gloucester Road,
Wan Chai,
Hong Kong

Our ref: T&ESD/E&IC/ES/EnvE/L1123

Date: 26 APR 2022

Attention: Mr. Calvin Chiu

By Post and Fax
(Fax no.: 3465 2899)

Dear Mr. Chiu,

Re: Section 16 Planning Application for Redevelopment of Lai Sun Yuen Long Centre at No. 27 Wang Yip Street East, Yuen Long – Request for Operation Mode and Conditions of Tuen Ma Line (TML)

We refer to your letter (ref.: GYUSYLCEI00_0_0003L.21) dated 16 February 2022 (received on 6 April 2022) requesting operational information regarding Tuen Ma Line (TML).

Operational Information

- The daily operating hours of TML are from approximately 05:00 to 01:20 hours.
- Please note that there are currently 8 cars per train for the operating condition of the Tuen Ma Line. However, according to the latest Environmental Permit (EP) for West Rail, the ultimate maximum train cars would be 9 cars.
- The future ultimate daily peak operating train frequency during the period of 07:00-23:00 hours is about 28 trains per hour per direction. For the future ultimate daily peak operating train frequency during the period of 23:00-07:00 hours, please refer to the latest EP for West Rail available via EPD website.

Train Noise Data

We suggest that your organization conduct its own survey or noise measurements to collect specific and representative on-site noise source data to suit the individual needs of your study.

Datum Level and Locations of Rail Crossing

We suggest that your organisation contact us to arrange the checking of the respective drawings on the requested information suitable for your study. Please note that there are no rail crossing along the concerned track section of TML. However, we wish to caution that the proposed development can be sensitive to the air-borne noise emitted from the nearby curved tracks of TML, which may cause potential adverse noise impacts to the future occupants.

Trackform

The concerned track section of TML is in floating slab trackform.

MTR Headquarters Building, Telford Plaza, Kowloon Bay, Kowloon, Hong Kong. GPO Box 9916, Hong Kong
Tel (852) 2993 2111 Fax (852) 2798 8822

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MTR Corporation Limited
香港鐵路有限公司
www.mtr.com.hk

Our ref: T&ESD/E&IC/ES/EnvE/L1123
Date: 26 APR 2022

Speed Profile
The current maximum train speed for the track section between Yuen Long Station and Long Ping Station is about 70km/h for both directions.

Noise Mitigation Measures
There are no trackside noise barriers or enclosures along the concerned track section of TML. Also, the Corporation does not have any plan on providing additional trackside noise barriers or enclosures along the concerned track sections of TML.

Please be reminded that any information that may come to your knowledge or come into your possession from MTR Corporation Limited shall only be used solely as reference for this captioned project. Further distribution and/or publication of the above information for purposes not connected with the captioned project are strictly prohibited without the prior consent of MTR Corporation Limited. Please also note that any such information is subject to change without prior notification.

Should you have any additional enquiries, please feel free to contact our Acting Lead Environmental Manager, Ms. Catherine Leung at 2993 4127.

Yours sincerely,

HK Chan
General Manager – Engineering & Innovation Centre

MTR Headquarters Building, Telford Plaza, Kowloon Bay, Kowloon, Hong Kong. GPO Box 9916, Hong Kong
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Appendix 4-2 Results of Railway Noise Impact Assessment

Predicted Railway Noise Impact - Overall Day&Evening Time (0700-2300) Leq(30min) in dB(A)

Overall Noise Level

Floor	mPD	R1-44	R2-49	R2-56	R2-57	R2-59	R2-62	R2-64	R2-65	R2-67	R2-68	R2-69	R2-72	R2-73	R2-74	R2-77	R2-78	R2-81	R2-82	R2-85
3/F	23.0	45	46	46	45	41	36	45	45	44	44	45	45	44	42	44	42	44	44	44
4/F	26.1	45	46	47	45	42	38	45	45	45	45	46	45	45	43	44	43	45	44	44
5/F	29.3	45	46	47	46	43	39	46	46	46	46	46	46	46	44	45	44	46	45	45
6/F	32.4	45	47	48	47	44	40	47	47	46	47	47	47	46	47	46	44	46	46	46
7/F	35.6	46	48	48	47	45	40	47	47	49	49	49	49	48	47	47	45	47	46	46
8/F	38.7	46	48	48	47	46	41	50	50	49	49	49	49	48	47	47	45	48	47	47
9/F	41.9	46	48	51	50	48	45	50	50	49	49	50	49	49	48	48	46	48	48	48
10/F	45.0	47	51	51	50	48	45	50	50	50	50	50	50	49	48	49	47	49	48	48
11/F	48.2	47	51	51	50	49	45	50	50	50	50	50	50	49	48	50	47	50	49	49
12/F	51.3	48	51	51	50	49	45	50	51	50	50	50	50	50	49	50	48	50	50	50
13/F	54.5	48	51	51	51	49	45	51	51	50	51	51	51	50	49	51	49	51	50	51
14/F	57.6	48	51	52	51	49	45	51	51	51	51	51	51	50	49	52	49	51	51	51
15/F	60.8	49	51	52	51	49	45	44	51	51	51	52	52	51	50	52	50	52	51	51
16/F	63.9	49	51	52	51	49	45	51	52	51	52	52	52	51	50	54	50	52	52	54
17/F	67.2	50	52	52	51	49	45	52	52	51	52	52	52	52	51	55	50	55	54	54
18/F	70.3	50	52	53	52	49	45	52	52	52	52	53	53	52	51	55	50	55	55	54
19/F	73.5	50	52	53	52	49	45	52	52	52	52	53	53	52	53	56	53	55	54	55
20/F	76.6	51	52	53	52	49	45	52	53	53	52	54	53	54	53	56	53	56	55	56
21/F	79.8	51	52	53	52	50	45	53	53	53	53	54	55	55	53	56	54	57	56	56
22/F	82.9	51	53	53	52	50	45	53	54	54	55	55	55	56	53	56	55	57	56	56
23/F	86.1	52	53	54	53	50	45	53	54	55	55	56	56	56	53	56	55	56	56	56
24/F	89.2	52	53	54	53	50	46	54	55	56	55	57	57	55	53	56	55	56	56	56
25/F	92.4	52	53	54	53	50	45	54	56	56	56	57	57	55	53	55	55	56	56	55
26/F	95.5	52	53	54	53	51	45	55	57	56	56	57	56	55	53	55	54	56	56	55
27/F	98.7	53	53	55	54	51	45	55	57	56	56	57	56	55	53	55	54	56	55	55
28/F	102.2	53	54	55	55	51	46	57	57	56	56	56	56	55	52	55	54	56	55	55
29/F	105.7	53	54	57	55	52	46	57	56	56	56	56	56	55	52	55	54	56	55	55
30/F	109.2	54	54	57	56	52	46	56	56	55	56	56	56	-	-	-	-	-	-	-
Maximum		54	54	57	56	52	46	57	57	56	56	57	57	56	53	56	55	57	56	56

66	NSRs with Noise Level exceeeding the Acceptable Noise Level
-	Not available at this storey

Note: 17/F serves as a refuge floor with no noise sensitive use

Predicted Railway Noise Impact - Overall Night-time (2300-0700) Leq(30min) in dB(A)

Overall Noise Level

Floor	mPD	R1-44	R2-49	R2-56	R2-57	R2-59	R2-62	R2-64	R2-65	R2-67	R2-68	R2-69	R2-72	R2-73	R2-74	R2-77	R2-78	R2-81	R2-82	R2-85
3/F	21.8	43	44	45	44	40	35	43	43	43	43	44	43	42	41	42	41	43	42	42
4/F	24.9	43	45	45	44	41	36	44	44	44	44	44	44	43	42	43	42	44	43	43
5/F	28.1	44	45	46	45	42	37	45	45	44	45	45	45	44	43	44	42	44	44	44
6/F	31.2	44	46	46	45	43	38	45	46	45	45	45	45	45	46	45	43	45	44	44
7/F	34.4	44	46	47	46	43	39	46	46	48	48	48	48	47	46	45	44	46	45	45
8/F	37.5	45	47	47	46	44	39	48	48	48	48	48	48	47	46	46	44	46	46	46
9/F	40.7	45	47	49	49	47	43	49	48	48	48	48	48	47	46	47	45	47	46	47
10/F	43.8	45	49	50	49	47	43	49	49	48	48	49	48	48	47	48	45	48	47	47
11/F	47.0	46	49	50	49	47	43	49	49	48	49	49	49	48	47	48	46	49	48	48
12/F	50.1	46	50	50	49	47	43	49	49	49	49	49	49	48	47	49	47	49	48	49
13/F	53.3	47	50	50	49	47	43	49	49	49	49	50	50	49	48	50	47	50	49	49
14/F	56.4	47	50	50	49	47	43	50	50	49	50	50	50	49	48	50	48	50	50	50
15/F	59.6	47	50	51	50	48	43	50	50	50	50	50	50	50	48	51	48	51	50	50
16/F	62.7	48	50	51	50	48	43	50	50	50	50	51	51	50	49	52	49	51	50	52
17/F	66.0	48	50	51	50	48	43	50	51	50	50	51	51	51	50	54	49	54	53	53
18/F	69.1	49	51	51	50	48	43	51	51	50	51	51	51	51	50	54	49	54	53	53
19/F	72.3	49	51	52	51	48	43	51	51	51	51	51	52	51	52	55	52	54	53	53
20/F	75.4	49	51	52	51	48	43	51	51	52	51	52	52	53	52	55	52	55	54	55
21/F	78.6	50	51	52	51	48	43	51	52	52	52	52	54	53	52	55	53	55	55	55
22/F	81.7	50	51	52	51	48	43	51	52	53	54	54	54	54	52	54	54	55	55	55
23/F	84.9	50	52	52	51	48	43	52	52	54	54	54	55	54	52	54	54	55	55	54
24/F	88.0	51	52	53	51	49	44	53	54	55	54	55	55	54	52	54	53	55	55	54
25/F	91.2	51	52	53	52	49	44	52	54	55	55	55	55	54	52	54	53	55	54	54
26/F	94.3	51	52	53	52	50	44	54	55	55	55	55	55	54	51	54	53	55	54	54
27/F	97.5	52	52	53	52	50	44	54	55	55	55	55	55	54	51	54	53	55	54	54
28/F	101.0	52	52	54	54	50	44	55	55	54	55	55	55	54	51	54	53	54	54	54
29/F	104.5	52	52	55	54	51	44	55	55	54	55	55	55	54	51	53	53	54	54	54
30/F	108.0	53	53	55	55	51	44	55	55	54	54	55	55	-	-	-	-	-	-	-
Maximum		53	53	55	55	51	44	55	55	55	55	55	55	54	52	55	54	55	55	55

56	NSRs with Noise Level exceeeding the Acceptable Noise Level
-	Not available at this storey

Note: 17/F serves as a refuge floor with no noise sensitive use

Predicted Railway Noise Impact - Overall Leq(24hr) in dB(A)

Overall Noise Level

Floor	mPD	R1-44	R2-49	R2-56	R2-57	R2-59	R2-62	R2-64	R2-65	R2-67	R2-68	R2-69	R2-72	R2-73	R2-74	R2-77	R2-78	R2-81	R2-82	R2-85
3/F	23.0	44	45	46	45	41	36	44	44	44	44	45	44	43	42	43	42	44	43	43
4/F	26.1	44	46	46	45	42	37	45	45	45	45	45	45	44	43	44	43	45	44	44
5/F	29.3	45	46	47	46	43	38	46	46	45	46	46	46	45	44	45	43	45	45	45
6/F	32.4	45	47	47	46	44	39	46	47	46	46	46	46	46	47	46	44	46	45	45
7/F	35.6	45	47	48	47	44	40	47	47	49	49	49	49	48	47	46	45	47	46	46
8/F	38.7	46	48	48	47	45	40	49	49	49	49	49	49	48	47	47	45	47	47	47
9/F	41.9	46	48	50	50	48	44	50	49	49	49	49	49	48	47	48	46	48	47	48
10/F	45.0	46	50	51	50	48	44	50	50	49	49	50	49	49	48	49	46	49	48	48
11/F	48.2	47	50	51	50	48	44	50	50	49	50	50	50	49	48	49	47	50	49	49
12/F	51.3	47	51	51	50	48	44	50	50	50	50	50	50	49	48	50	48	50	49	50
13/F	54.5	48	51	51	50	48	44	50	50	50	50	51	51	50	49	51	48	51	50	50
14/F	57.6	48	51	51	50	48	44	51	51	50	51	51	51	50	49	51	49	51	51	51
15/F	60.8	48	51	52	51	49	44	51	51	51	51	51	51	51	49	52	49	52	51	51
16/F	63.9	49	51	52	51	49	44	51	51	51	51	52	52	51	50	53	50	52	51	53
17/F	67.2	49	51	52	51	49	44	51	52	51	51	52	52	52	51	55	50	55	54	54
18/F	70.3	50	52	52	51	49	44	52	52	51	52	52	52	52	51	55	50	55	54	54
19/F	73.5	50	52	53	52	49	44	52	52	52	52	52	53	52	53	56	53	55	54	54
20/F	76.6	50	52	53	52	49	44	52	52	53	52	53	53	54	53	56	53	56	55	56
21/F	79.8	51	52	53	52	49	44	52	53	53	53	53	55	54	53	56	54	56	56	56
22/F	82.9	51	52	53	52	49	44	52	53	54	55	55	55	55	53	55	55	56	56	56
23/F	86.1	51	53	53	52	49	44	53	53	55	55	55	56	55	53	55	55	56	56	55
24/F	89.2	52	53	54	52	50	45	54	55	56	55	56	56	55	53	55	54	56	56	55
25/F	92.4	52	53	54	53	50	45	53	55	56	56	56	56	55	53	55	54	56	55	55
26/F	95.5	52	53	54	53	51	45	55	56	56	56	56	56	55	52	55	54	56	55	55
27/F	98.7	53	53	54	53	51	45	55	56	56	56	56	56	55	52	55	54	56	55	55
28/F	102.2	53	53	55	55	51	45	56	56	55	56	56	56	55	52	55	54	55	55	55
29/F	105.7	53	53	56	55	52	45	56	56	55	56	56	56	55	52	54	54	55	55	55
30/F	109.2	54	54	56	56	52	45	56	56	55	55	56	56	-	-	-	-	-	-	-
Maximum		54	54	56	56	52	45	56	56	56	56	56	56	55	53	56	55	56	56	56

66	NSRs with Noise Level exceeeding the Acceptable Noise Level
-	Not available at this storey

Note: 17/F serves as a refuge floor with no noise sensitive use

Predicted Railway Noise Impact - Overall Lmax in dB(A)

Overall Noise Level

Floor	mPD	R1-44	R2-49	R2-56	R2-57	R2-59	R2-62	R2-64	R2-65	R2-67	R2-68	R2-69	R2-72	R2-73	R2-74	R2-77	R2-78	R2-81	R2-82	R2-85
3/F	23.0	63	62	63	63	63	63	64	64	65	65	65	65	65	66	68	65	66	65	65
4/F	26.1	63	62	63	63	63	63	64	64	65	65	65	65	65	66	68	65	66	65	65
5/F	29.3	63	62	63	63	63	63	64	64	65	64	65	65	65	65	68	65	66	65	65
6/F	32.4	63	62	63	63	63	63	64	64	65	64	65	65	65	65	68	65	65	65	65
7/F	35.6	63	62	63	63	63	63	64	64	64	64	65	65	65	65	67	65	65	65	65
8/F	38.7	62	62	63	63	63	63	64	64	64	64	64	65	65	65	67	64	65	65	65
9/F	41.9	62	62	63	63	63	63	63	64	64	64	64	65	65	65	67	64	65	65	65
10/F	45.0	62	62	63	63	63	63	63	64	64	64	64	65	65	65	67	64	65	65	65
11/F	48.2	62	62	63	63	63	63	63	64	64	64	64	64	65	65	66	64	65	65	65
12/F	51.3	62	62	63	63	63	63	63	64	64	64	64	64	65	65	66	64	65	64	65
13/F	54.5	62	62	62	63	63	63	63	64	64	64	64	64	64	65	66	64	65	64	65
14/F	57.6	62	62	62	63	63	63	63	63	64	64	64	64	64	64	66	64	65	64	64
15/F	60.8	62	62	62	63	63	63	63	63	64	64	64	64	64	64	65	64	64	64	64
16/F	63.9	62	62	62	62	63	63	63	63	64	64	64	64	64	64	65	64	64	64	64
17/F	67.2	62	62	62	62	63	63	63	63	63	63	63	64	64	64	65	64	64	64	64
18/F	70.3	62	62	62	62	62	63	63	63	63	63	63	64	64	64	65	63	64	64	64
19/F	73.5	62	62	62	62	62	62	63	63	63	63	63	63	64	64	65	63	64	64	64
20/F	76.6	62	61	62	62	62	62	63	63	63	63	63	63	63	64	64	63	64	63	64
21/F	79.8	62	61	62	62	62	62	62	63	63	63	63	63	63	63	64	63	63	63	63
22/F	82.9	62	61	62	62	62	62	62	63	63	63	63	63	63	63	64	63	63	63	63
23/F	86.1	61	61	62	62	62	62	62	62	63	63	63	63	63	63	64	63	63	63	63
24/F	89.2	61	61	62	62	62	62	62	62	63	63	63	63	63	63	64	63	63	63	63
25/F	92.4	61	61	62	62	62	62	62	62	62	62	62	63	63	63	63	63	63	63	63
26/F	95.5	61	61	61	62	62	62	62	62	62	62	62	63	63	63	63	62	63	63	63
27/F	98.7	61	61	61	61	62	62	62	62	62	62	62	62	62	63	63	62	63	62	63
28/F	102.2	61	61	61	61	62	62	62	62	62	62	62	62	62	62	63	62	62	62	62
29/F	105.7	61	61	61	61	61	61	62	62	62	62	62	62	62	62	63	62	62	62	62
30/F	109.2	61	61	61	61	61	61	61	62	62	62	62	62	-	-	-	-	-	-	-
Maximum		63	62	63	63	63	63	64	64	65	65	65	65	65	66	68	65	66	65	65

86	NSRs with Noise Level exceeeding the Acceptable Noise Level
-	Not available at this storey

Note: 17/F serves as a refuge floor with no noise sensitive use

Appendix 4-3 Sample Calculation of Railway Noise Impact Assessment

Area Sensitivity Rating (ASR)	B
Time Period	Night-time
Noise Criterion, dB(A)	55.4

DETAILED CALCULATIONS

R_ID	Noise Sensitive Receiver (NSR) ID	R2-78
R_x	NSR (x)	821108.5
R_y	NSR (y)	834291.9
R_z	NSR (z)	113.9
R_Type	Receptor Type	T2

52.4

			1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0	12.0	13.0	14.0	15.0	19.0	20.0	21.0	22.0
	TRACK SEGMENTATION																				
	Track ID		ToTM_01	ToTM_02	ToTM_03	ToTM_04	ToTM_05	ToTM_06	ToTM_07	ToTM_08	ToTM_09	ToHH_01	ToHH_02	ToHH_03	ToHH_04	ToHH_05	ToHH_06	ToHH_07	ToHH_08	ToHH_09	ToHH_10
	Type		EMU	EMU	EMU	EMU	EMU	EMU	EMU	EMU	EMU	EMU	EMU	EMU	EMU	EMU	EMU	EMU	EMU	EMU	EMU
	Track On/Off Toggle		Off	Off	Off	On	On	Off	Off	Off	Off	Off	Off	Off	Off	Off	On	Off	Off	Off	Off
	Predefined Track Start Point (x)	Coord	820869.6	820959.9	821021.8	821064.2	821121.1	821155.1	821187.9	821260.3	821299.5	820747.0	820869.7	820959.7	821010.2	821060.8	821104.3	821155.3	821191.0	821254.7	821302.6
	Predefined Track Start Point (y)	Coord	834244.2	834244.2	834240.6	834233.9	834217.7	834203.8	834188.5	834149.3	834128.2	834263.7	834263.3	834261.9	834256.3	834246.0	834233.0	834212.6	834194.4	834158.0	834134.8
	Predefined Track Start Point (z)	Coord	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
	Predefined Track End Point (x)	Coord	820959.9	821021.8	821064.2	821121.1	821155.1	821187.9	821260.3	821299.5	821358.0	820869.7	820959.7	821010.2	821060.8	821104.3	821155.3	821191.0	821254.7	821302.6	821366.2
	Predefined Track End Point (y)	Coord	834244.2	834240.6	834233.9	834217.7	834203.8	834188.5	834149.4	834128.2	834100.8	834263.3	834261.9	834256.3	834246.0	834233.0	834212.6	834194.4	834158.0	834134.8	834112.4
	Predefined Track End Point (z)	Coord	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
	ROLLING NOISE																				
	Rolling Stock																				
	Train Frequency Per 30 Minutes (Daytime & Evening) (Ultimate)		15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
	Train Frequency Per 30 Minutes (Night-time) (Ultimate)		11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
	No. of Cars Per Train (Existing)		8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
	No. of Cars Per Train (Ultimate)		9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0
	Source Strength																				
	Measured Sound Exposure Level (SEL)		76.2	76.2	76.2	76.2	76.2	76.2	76.2	76.2	76.2	75.4	75.4	75.4	75.4	75.4	75.4	75.4	75.4	75.4	75.4
	Reference Distance of Measurement	m	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0	76.0	66.2	66.2	66.2	66.2	66.2	66.2	66.2	66.2	66.2	66.2
	Measurement View Angle	Degree	123.7	123.7	123.7	123.7	123.7	123.7	123.7	123.7	123.7	129.5	129.5	129.5	129.5	129.5	129.5	129.5	129.5	129.5	129.5
	Measurement Acute Angle	Degree	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.5	89.9	89.9	89.9	89.9	89.9	89.9	89.9	89.9	89.9	89.9
SEL	[a] $SEL_{reference}$ at 25 m & 180 degree & 9 cars per train		81.8	81.8	81.8	81.8	81.8	81.8	81.8	81.8	81.8	80.3	80.3	80.3	80.3	80.3	80.3	80.3	80.3	80.3	80.3
S_z	Height of Notional Noise Source (Source)	mPD	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
	Barrier (Viaduct)	Barrier (Viaduct) Toggle	Single	Single	Single	Single	Single	Single	Twin (Far)	Twin (Far)	Single	Single	Single	Single	Single	Single	Single	Single	Twin (Near)	Twin (Near)	Single
Barrier_zp	Effective Barrier Height (z)	mPD	21.2	21.2	21.2	21.2	21.2	21.2	21.2	21.2	21.2	21.2	21.2	21.2	21.2	21.2	21.2	21.2	21.2	21.2	21.2
	Geometry																				
SB_dH	Horizontal Distance between Source and Barrier	m	1.3	1.3	1.3	1.3	1.3	1.3	5.0	5.0	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
BR_dH	Horizontal Distance between Barrier and Receiver	m	46.4	55.1	63.0	66.7	62.7	58.8	48.2	48.6	65.9	28.1	31.0	44.8	53.3	56.4	55.0	48.2	42.3	55.8	82.2
SR_dH	Horizontal Distance between Source and Receiver	m	47.7	56.4	64.3	68.0	64.0	60.1	53.2	53.6	67.2	29.4	32.3	46.1	54.6	57.7	56.3	49.5	43.6	57.1	83.5
VA	View Angle	Degree	6.5	12.9	22.0	8.4	12.8	9.6	9.3	2.6	3.2	2.4	4.6	8.5	24.0	42.0	21.2	9.7	7.3	3.5	4.1
AA	Acute Angle	Degree	14.5	27.6	50.6	68.8	51.8	32.3	19.5	13.6	13.9	5.9	10.0	21.9	43.5	81.5	56.4	27.6	16.3	15.0	17.5
SB_dS	Slant Distance between Source and Barrier	m	1.8	1.8	1.8	1.8	1.8	1.8	5.1	5.1	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
BR_dS	Slant Distance between Barrier and Receiver	m	103.6	107.8	112.1	114.2	111.9	109.7	104.5	104.6	113.7	96.9	97.7	103.0	106.9	108.5	107.8	104.4	101.9	108.2	123.9
SR_dS	Slant Distance between Source and Receiver	m	105.3	109.5	113.8	115.9	113.6	111.4	107.9	108.1	115.4	98.4	99.3	104.6	108.6	110.2	109.5	106.1	103.5	109.9	125.6
PLD	Path Length Difference	m	0.1	0.1	0.0	0.0	0.0	0.1	1.7	1.7	0.0	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0
Angle_SB	Angle SB	Degree	42.7	42.7	42.7	42.7	42.7	42.7	13.5	13.5	42.7	42.7	42.7	42.7	42.7	42.7	42.7	42.7	42.7	42.7	42.7
Angle_SR	Angle SR	Degree	63.1	59.0	55.6	54.1	55.7	57.4	60.5	60.3	54.4	72.6	71.0	63.8	59.8	58.4	59.0	62.2	65.1	58.7	48.4
	Shadow Zone (TRUE) / Illuminated Zone (FALSE)	Boolean	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE
	Propagation																				
Corr_Bar_1	[b1] Barrier Correction (MaeKawa)	dB(A)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Corr_Dist	[c] Distance Correction	dB(A)	-6.2	-6.4	-6.6	-6.7	-6.6	-6.5	-6.4	-6.4	-6.6	-5.9	-6.0	-6.2	-6.4	-6.4	-6.4	-6.3	-6.2	-6.4	-7.0
Corr_VA	[d] View Angle Correction	dB(A)	-23.4	-15.1	-8.4	-11.0	-10.6	-15.2	-19.4	-28.0	-26.9	-35.6	-28.1	-18.8	-9.0	-3.6	-7.9	-16.3	-21.9	-25.9	-23.9
Corr_TD	[e] Track Deterioration Correction	dB(A)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Corr_Freq	[f] Train Frequency Correction	dB(A)	-22.1	-22.1	-22.1	-22.1	-22.1	-22.1	-22.1	-22.1	-22.1	-22.1	-22.1	-22.1	-22.1	-22.1	-22.1	-22.1	-22.1	-22.1	-22.1
Corr_Façade	[g] Façade Correction	dB(A)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Corr_AAb	[j] Air Absorption Correction	dB(A)	-0.6	-0.7	-0.7	-0.7	-0.7	-0.7	-0.7	-0.7	-0.7	-0.6	-0.6	-0.6	-0.7	-0.7	-0.7	-0.6	-0.6	-0.7	-0.8
	L_{Aeq} ([a] + [b1] + [c] + [d] + [e] + [f] + [g] + [j])	dB(A)	0.0	0.0	0.0	46.8	47.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	48.7	0.0	0.0	0.0	0.0
	Rolling Noise Overall L_{Aeq}	dB(A)	52.4																		

TRACK COORDINATES

Track_x1	Track Start Point (x)	Coord	820869.6	820959.9	821021.8	821110.0	821121.1	821155.1	821187.9	821260.3	821299.5	820747.0	820869.7	820959.7	821010.2	821060.8	821109.8	821155.3	821191.0	821254.7	821302.6
Track_y1	Track Start Point (y)	Coord	834244.2	834244.2	834240.6	834220.8	834217.7	834203.8	834188.5	834149.3	834128.2	834263.7	834263.3	834261.9	834256.3	834246.0	834230.8	834212.6	834194.4	834158.0	834134.8
Track_z1	Track Start Point (z)	Coord	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Track_x2	Track End Point (x)	Coord	820959.9	821021.8	821064.2	821121.1	821142.8	821187.9	821260.3	821299.5	821358.0	820869.7	820959.7	821010.2	821060.8	821104.3	821138.5	821191.0	821254.7	821302.6	821366.2
Track_y2	Track End Point (y)	Coord	834244.2	834240.6	834233.9	834217.7	834208.8	834188.5	834149.4	834128.2	834100.8	834263.3	834261.9	834256.3	834246.0	834233.0	834219.3	834194.4	834158.0	834134.8	834112.4
Track_z2	Track End Point (z)	Coord	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0

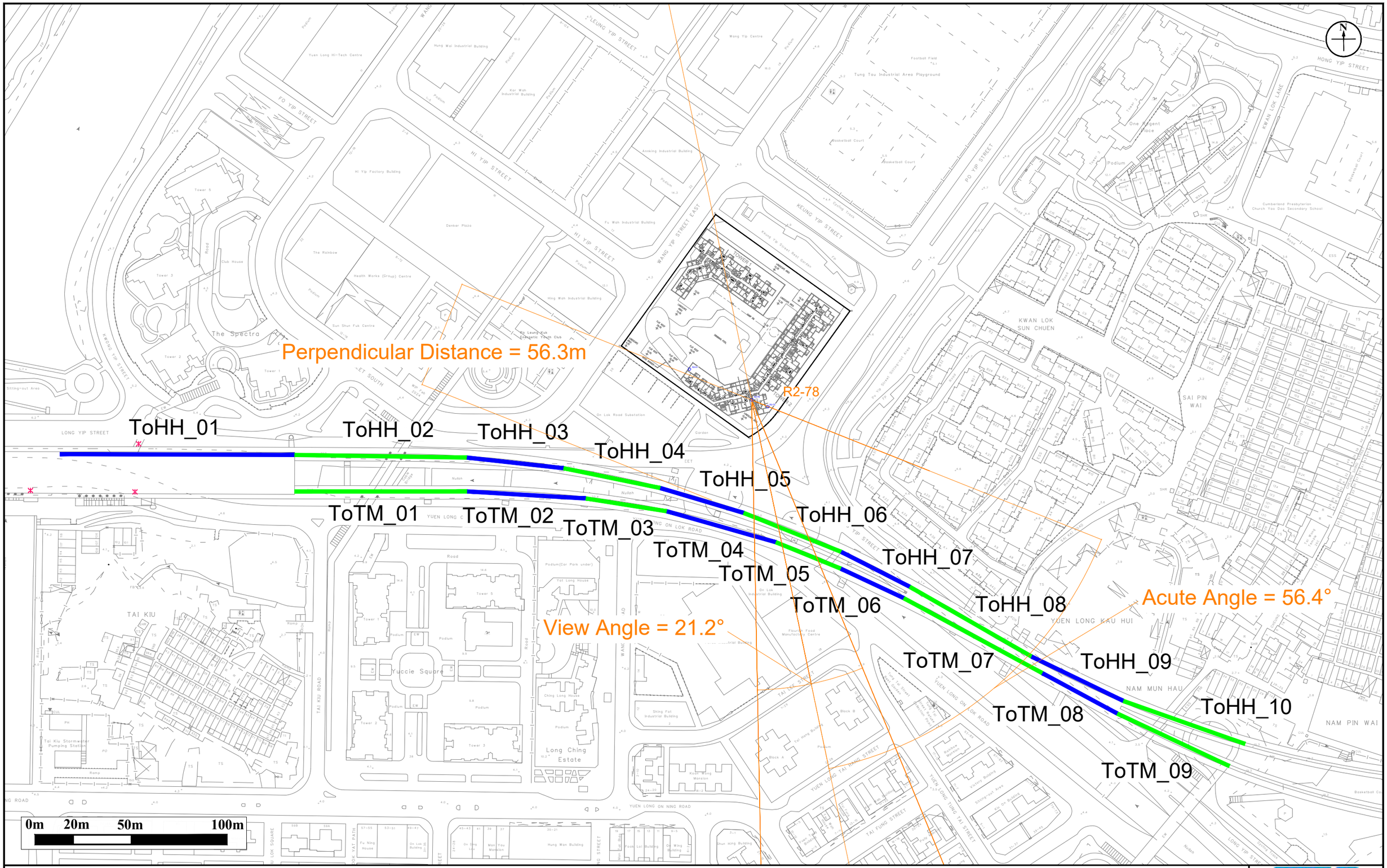
PROJECTIONS OF d, θ, α

Track_m	Track Slope		0.0	-0.1	-0.2	-0.3	-0.4	-0.5	-0.5	-0.5	-0.5	0.0	0.0	-0.1	-0.2	-0.3	-0.4	-0.5	-0.6	-0.5	-0.4
	-1/m		-5014.3	16.9	6.3	3.5	2.5	2.1	1.8	1.9	2.1	305.2	64.9	9.1	4.9	3.3	2.5	2.0	1.7	2.1	2.8
	Projection Track Points																				
Track_xp	Track Projection Point (x)	Coord	821108.5	821105.2	821098.5	821090.0	821084.4	821083.1	821083.2	821083.1	821080.0	821108.4	821108.0	821103.5	821097.6	821092.0	821087.7	821086.1	821086.9	821083.7	821080.7
Track_yp	Track Projection Point (y)	Coord	834244.2	834235.6	834228.4	834226.5	834232.6	834237.5	834245.1	834244.8	834231.1	834262.5	834259.6	834246.1	834238.4	834236.6	834239.6	834247.9	834254.1	834240.6	834213.2
Track_zp	Track Projection Point (z)	mPD	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
	Horizontal Perpendicular Distance between R and S																				
SR_dH	d	m	47.7	56.4	64.3	68.0	64.0	60.1	53.2	53.6	67.2	29.4	32.3	46.1	54.6	57.7	56.3	49.5	43.6	57.1	83.5
	View Angle and Acute Angle																				
	DISTANCE																				
b	NA	m	243.7	156.2	100.8	71.1	75.3	99.7	130.4	208.3	251.5	362.6	240.6	151.8	104.6	66.3	61.2	92.1	127.7	198.2	249.7
a	NB	m	156.2	100.8	73.1	75.3	89.9	130.4	208.2	251.5	314.3	240.6	151.8	104.6	66.3	59.1	78.6	127.7	198.2	249.7	314.0
n	AB	m	90.3	62.1	42.9	11.5	23.5	36.2	82.3	44.5	64.6	122.6	90.1	50.8	51.6	45.4	30.9	40.1	73.3	53.3	67.4
	ANGLES																				
	View Angle ∠ANB	Degree	6.5	12.9	22.0	8.4	12.8	9.6	9.3	2.6	3.2	2.4	4.6	8.5	24.0	42.0	21.2	9.7	7.3	3.5	4.1
	∠NAB	Degree	11.3	21.2	39.6	107.1	121.7	142.9	155.9	165.1	164.5	4.7	7.7	17.7	31.5	60.5	113.0	147.5	160.0	163.3	160.5
	∠NBA	Degree	162.2	146.0	118.4	64.6	45.4	27.4	14.8	12.3	12.3	173.0	167.7	153.8	124.5	77.5	45.8	22.8	12.7	13.2	15.4
	Acute Angle	Degree	14.5	27.6	50.6	68.8	51.8	32.3	19.5	13.6	13.9	5.9	10.0	21.9	43.5	81.5	56.4	27.6	16.3	15.0	17.5

PREDICTED NOISE LEVEL

Floor	mPD	Overall L_{Aeq}	
3/F	24.2	41.1	53.7 84.1 mPD at 22/F
4/F	27.3	41.7	
5/F	30.5	42.2	
6/F	33.6	42.8	
7/F	36.8	43.5	
8/F	39.9	44.1	
9/F	43.1	44.7	
10/F	46.2	45.3	
11/F	49.4	46.0	
12/F	52.5	46.6	
13/F	55.7	47.3	
14/F	58.8	47.8	
15/F	62.0	48.2	
16/F	65.1	48.5	
17/F	68.4	48.9	
18/F	71.5	48.8	
19/F	74.7	51.7	
20/F	77.8	51.9	
21/F	81.0	52.9	
22/F	84.1	53.7	
23/F	87.3	53.5	
24/F	90.4	53.4	
25/F	93.6	53.3	
26/F	96.7	53.1	
27/F	99.9	53.0	
28/F	103.4	52.9	
29/F	106.9	52.7	
30/F	110.4	52.5	

Note:



Appendix:	4.3a	RAMBOLL
Title:	Determination of View Angle, Acute Angle and Perpendicular Distance to Track "ToHH_06" for R2-78	Drawn by: MW Checked by: CC
Project:	Redevelopment of Lai Sun Yuen Long Centre at Nos. 21-35 Wang Yip Street East, YLTL 362	Rev.: 4.0 Date: Apr 2026

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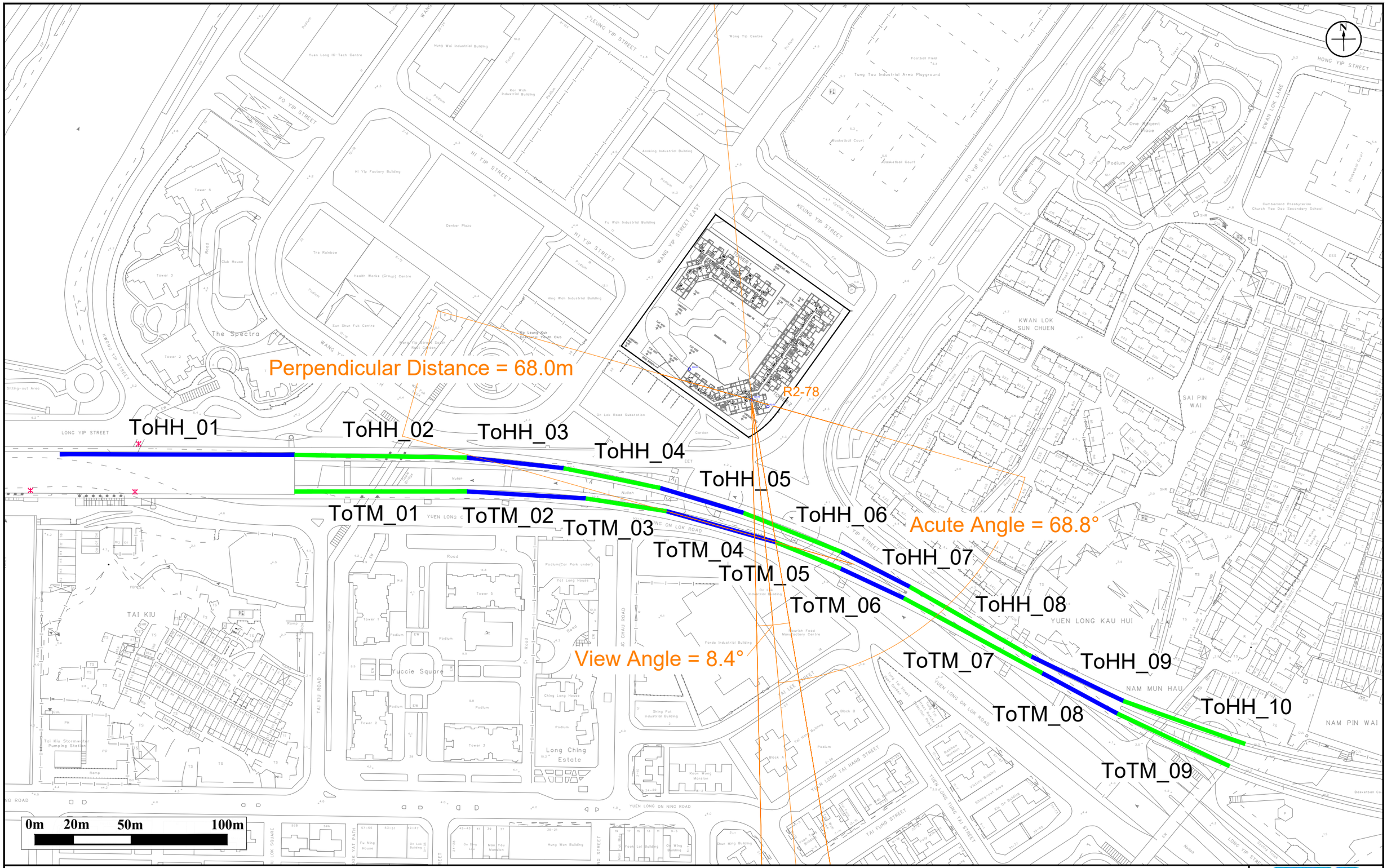

Appendix:	4.3b	RAMBOLL
Title:	Determination of View Angle, Acute Angle and Perpendicular Distance to Track "ToTM_04" for R2-78	Drawn by: MW Checked by: CC
Project:	Redevelopment of Lai Sun Yuen Long Centre at Nos. 21-35 Wang Yip Street East, YLTL 362	Rev.: 4.0 Date: Apr 2026

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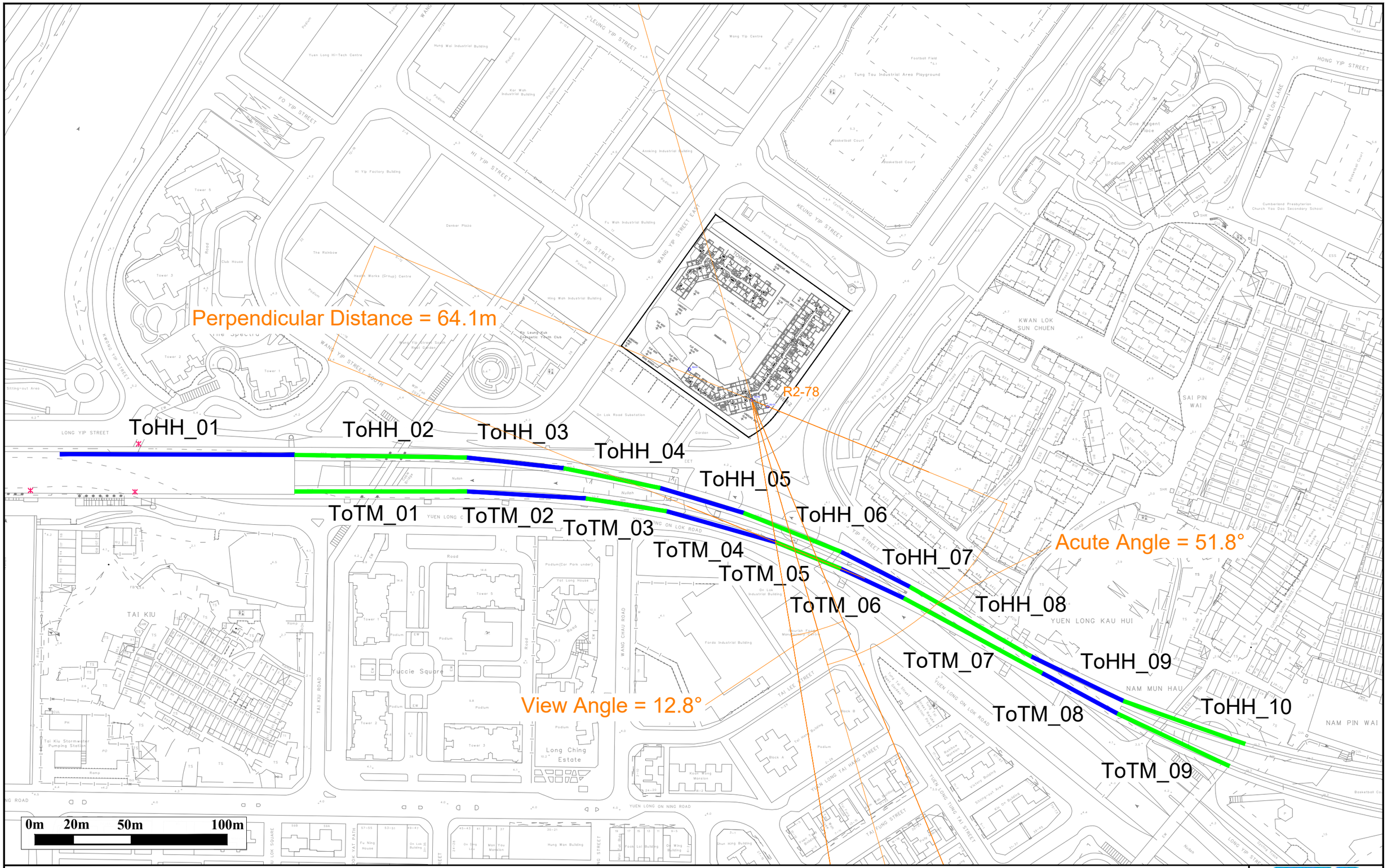

Appendix:	4.3c	RAMBOLL
Title:	Determination of View Angle, Acute Angle and Perpendicular Distance to Track "ToTM_05" for R2-78	Drawn by: MW Checked by: CC
Project:	Redevelopment of Lai Sun Yuen Long Centre at Nos. 21-35 Wang Yip Street East, YLTL 362	Rev.: 4.0 Date: Apr 2026

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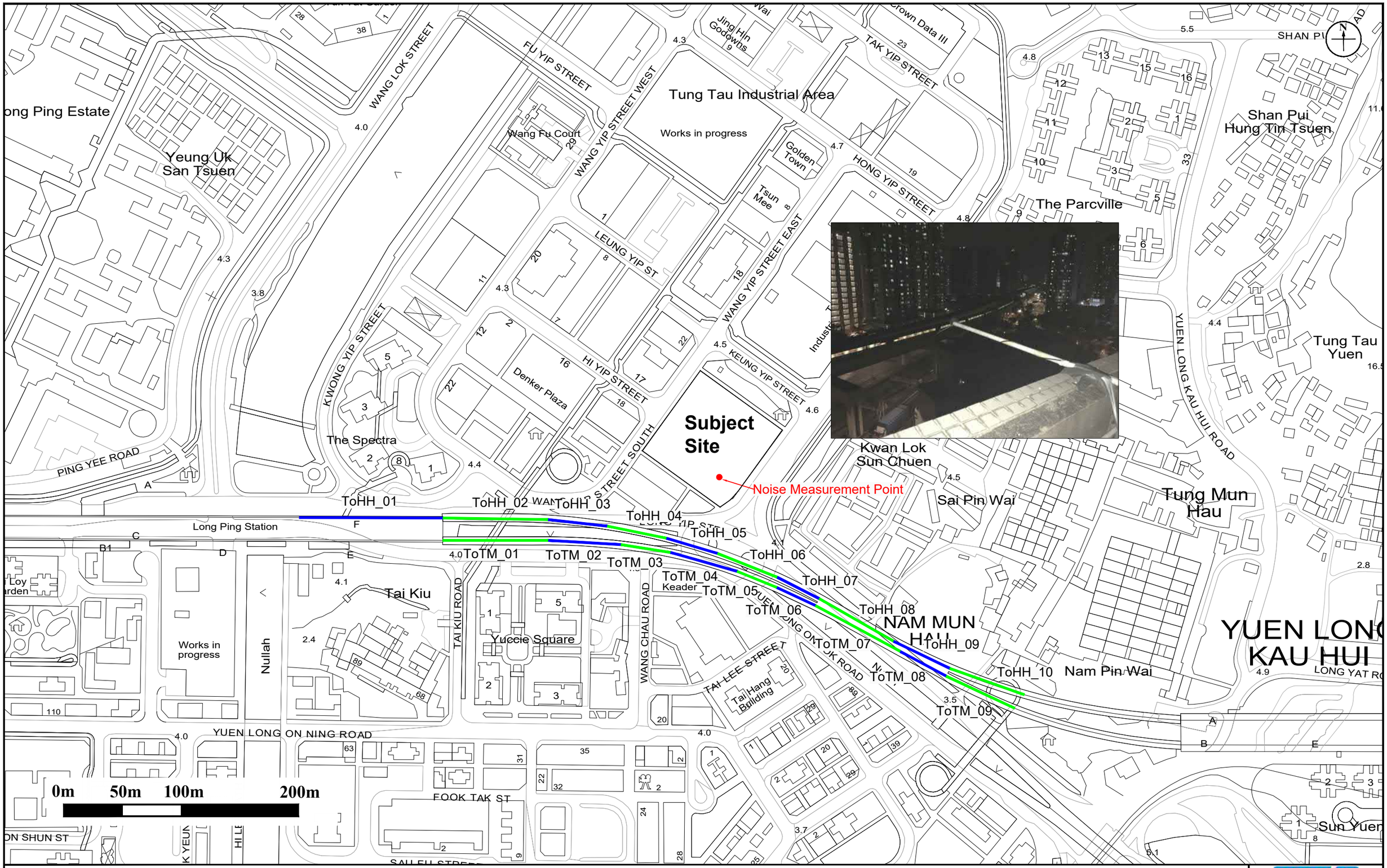
Appendix 4-4 Details of Railway Noise Measurement



Appendix: 4.4

Title: Location of on-site Railway Noise Measurement

Project: Redevelopment of Lai Sun Yuen Long Centre at Nos. 21-35 Wang Yip Street East, YLTL 362

RAMBOLL

Drawn by:	JK
Checked by:	CC
Rev.:	1.0
Date:	Jul 2020

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Calculation of Reference SEL based on onsite measurement at the rooftop of Lai Sun Yuen Long Centre

	Train ID	Train Direction/Track	Date of Measuremnt	Time (Start)	Time (End)	Sound Exposure Level (SEL)	Duration	Min $L_{A,eq}$	SEL w/o Background	Lmax	Number of cars
EMU	NB1	Hung Hom (NB)	12/23/2019	23:08:28	23:08:52	77.9	24	61.1	75.2	67.3	8
	NB2	Hung Hom (NB)	12/23/2019	23:13:44	23:14:09	77.5	25	62.3	72.7	67.4	8
	NB3	Hung Hom (NB)	12/23/2019	23:19:33	23:19:56	77.7	23	62.0	73.8	66.4	8
	NB4	Hung Hom (NB)	12/23/2019	23:24:45	23:25:09	78.2	24	62.7	74.0	68.7	8
	NB5	Hung Hom (NB)	12/23/2019	23:30:49	23:31:07	79.6	18	63.3	76.4	69.6	8
	NB6	Hung Hom (NB)	12/23/2019	23:36:54	23:37:15	79.9	21	64.4	75.6	68.4	8
	NB7	Hung Hom (NB)	12/23/2019	23:42:55	23:43:15	80.4	20	63.6	77.8	69.8	8
								Log Average	**75.4**	**68.4**	

	Train ID	Train Direction/Track	Date of Measuremnt	Time (Start)	Time (End)	Sound Exposure Level (SEL)	Duration	Min $L_{A,eq}$	SEL w/o Background	Lmax	Number of cars
EMU	SB1	Tuen Mun(SB)	12/23/2019	23:05:26	23:05:59	79.3	33	61.9	75.9	66.8	8
	SB2	Tuen Mun(SB)	12/23/2019	23:10:54	23:11:29	78.7	35	61.3	75.3	65.8	8
	SB3	Tuen Mun(SB)	12/23/2019	23:16:34	23:17:05	80.1	31	61.8	77.5	68.8	8
	SB4	Tuen Mun(SB)	12/23/2019	23:27:27	23:27:57	80.7	30	62.8	77.8	69.4	8
	SB5	Tuen Mun(SB)	12/23/2019	11:33:03	23:33:31	79.8	28	62.2	76.5	69.4	8
	SB6	Tuen Mun(SB)	12/23/2019	23:38:26	23:38:56	78.5	30	60.9	75.3	66.5	8
	SB7	Tuen Mun(SB)	12/23/2019	23:44:07	23:44:34	78.3	27	61.5	74.1	68.4	8
								Log Average	**76.2**	**68.1**	

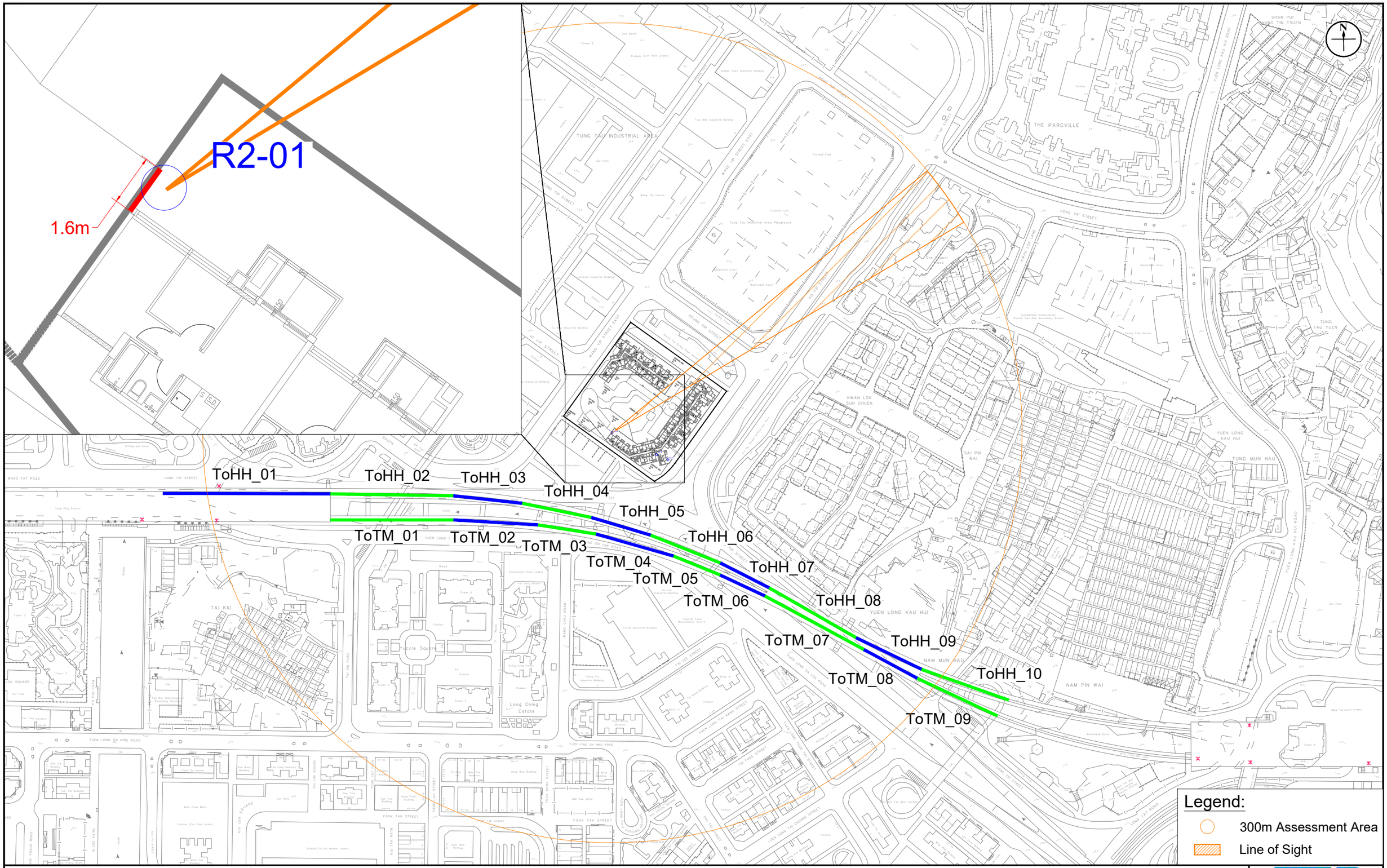
Note:
Measurement point at the railing (the SEL is considered to be free-field, such that no façade correction is accounted)
SEL and L_{max} are measured for the period when noise from railway operation is audible
Duration represents the length of the period measured; Passby Duration is the length of the train to pass thorugh the measurement point
Min LA,eq is the minimum noise level measured within the period

	Calculation of Reference SEL		**Calculation of Reference Lmax**	
Measurement Results:	NB EMU	SB EMU	NB EMU	SB EMU
Measured SEL with background correction (dBA) =	75.4	76.2	68.4	68.1
Measurement point distance from track (m) =	66.2	76.0	66.19	75.95
View angle, θ (°) =	129.52	123.68	129.52	123.68
Acute angle, α (°) (refer to CRN for definition of acute angle) =	89.92	89.48	89.92	89.48
Number of car per train =	8	8	8	8

Application of view angle and number-of-car correction

Expected number of car per train upcon completion of development =	9	9	9	9
Distance Correction	4.23	4.83	4.23	4.83
Correction for 9-car train, 10xlog(B/A) =	0.51	0.51	0.51	0.51
View angle correction (refer to CRN) =	0.18	0.24	Not Accounted	Not Accounted
Reference SEL (with 12-car-train and view angle correction) (dBA) =	80.3	81.8	73.1	73.4

Appendix 4-5 Line of Sight from R2-01 and R2-75



Appendix:	4.5a	RAMBOLL
Title:	Line of Sight from NSR N2-01	Drawn by: MW
		Checked by: CC
Project:	Redevelopment of Lai Sun Yuen Long Centre at Nos. 21-35 Wang Yip Street East, YLTL 362	Rev.: 4.0
		Date: Apr 2026

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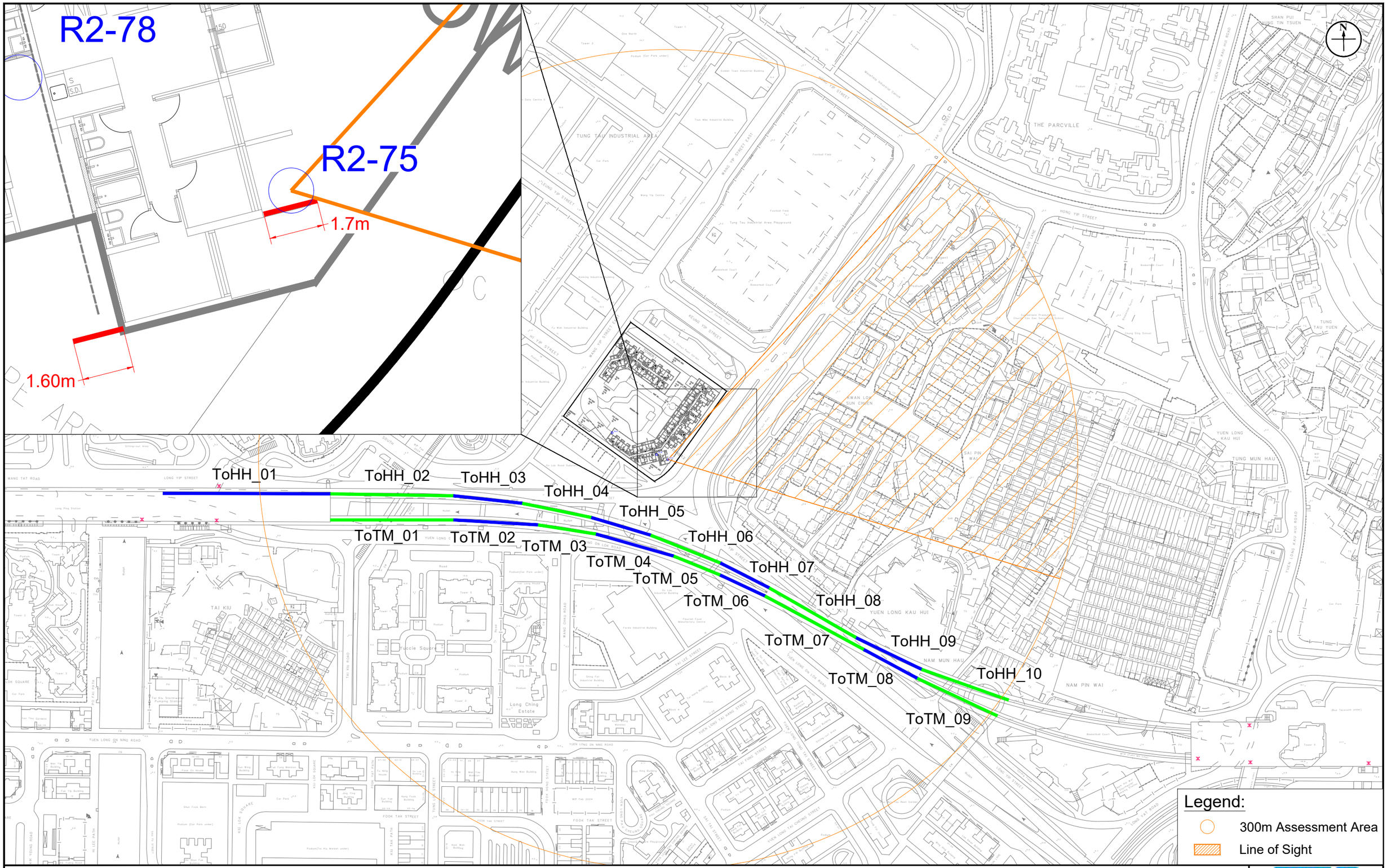


Appendix:	4.5b	RAMBOLL
Title:	Line of Sight from NSR R2-75	Drawn by: MW
		Checked by: CC
Project:	Redevelopment of Lai Sun Yuen Long Centre at Nos. 21-35 Wang Yip Street East, YLTL 362	Rev.: 4.0
		Date: Apr 2026

Q:\Projects\GYULSYLCEI00\05 Assessments\02 Noise\03 Rail\20260422 EAv4.0\RNIA_260422.dwg

Appendix 5-1 Details of Site Survey

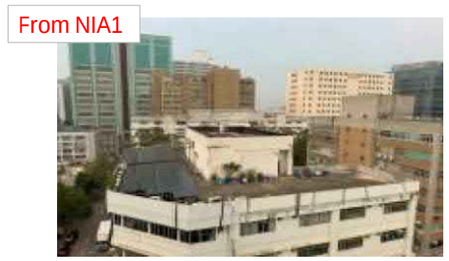
Redevelopment of Lai Sun Yuen Long Centre at Nos. 21-35 Wang Yip Street East, YLTL 362
Fixed Noise Sources at 300m area

Source ID	Source	Photo	Description	Measured SPL, dB(A)			Measurement Distance, m	Measured SWL, dB(A)			SWL adopted in NIA1		Adopted SWL, dB(A)	
				9-Dec-2019	9-Jan-2020	23-Dec-2019		9-Dec-2019	9-Jan-2020	23-Dec-2019				
				Day and Evening Time	Day and Evening Time	Night time		Day and Evening Time	Day and Evening Time	Night time	Day and Evening Time	Night time	Day and Evening Time	Night time
S1a	On Lok Road Substation		6 Transformers at Electrical Substation	64.7	65.2	63.7	7	88.0	88.1	84.6	88.1	84.6	88.1	84.6
S1b				64.7	65.2	63.7	7	88.0	88.1	84.6	88.1	84.6	88.1	84.6
S1c				64.7	65.2	63.7	7	88.0	88.1	84.6	88.1	84.6	88.1	84.6
S1d				64.7	65.2	63.7	7	88.0	88.1	84.6	88.1	84.6	88.1	84.6
S1e				64.7	65.2	63.7	7	88.0	88.1	84.6	88.1	84.6	88.1	84.6
S1f				64.7	65.2	63.7	7	88.0	88.1	84.6	88.1	84.6	88.1	84.6
S1			Background	59.6	61.0	61.5	--	--	--	--	--	--	--	--
S2	Sum Kee Metal Company Limited		Metal processing take place, including cutting and compressing metal sheets by machine	(Measurement was not conducted)	64.8	No Night-time operation	15.5	--	93.1	--	93.1	--	93.1	--
			Background	--	62.2	--	--	--	--	--	--	--	--	--
S3*	健記汽車冷氣電器		Garage without tyre replacement	(Measurement was not conducted)							91.0	--	91.0	--

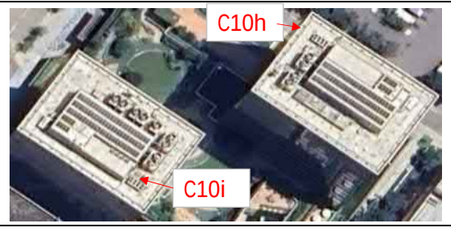
Source ID	Source	Photo	Description	Measured SPL, dB(A)			Measurement Distance, m	Measured SWL, dB(A)			SWL adopted in NIA1		Adopted SWL, dB(A)	
				9-Dec-2019	9-Jan-2020	23-Dec-2019		9-Dec-2019	9-Jan-2020	23-Dec-2019				
				Day and Evening Time	Day and Evening Time	Night time		Day and Evening Time	Day and Evening Time	Night time	Day and Evening Time	Night time	Day and Evening Time	Night time
S4*	裕記膠輪電池		Garage with tyre replacement	(Measurement was not conducted)							97.0	--	97.0	--
S5	珠江車房		Minibus maintenance workshop with tyre replacement works	67.9	65.0	No Night-time operation	13.5	97.8	93.3	--	97.8	--	97.8	--
			Background	59.6	61.0	--	--	--	--	--	--	--	--	--
S6	元朗膠輪電池有限公司		Minibus maintenance workshop with tyre replacement works	(Measurement was not conducted)	71.3	No Night-time operation	12.5	--	100.8	--	100.8	--	100.8	--
			Background	--	61.0	--	--	--	--	--	--	--	--	--
S7*	新界車房		Garage without tyre replacement	(Measurement was not conducted)							91.0	--	91.0	--

Source ID	Source	Photo	Description	Measured SPL, dB(A)			Measurement Distance, m	Measured SWL, dB(A)			SWL adopted in NIA1		Adopted SWL, dB(A)	
				9-Dec-2019	9-Jan-2020	23-Dec-2019		9-Dec-2019	9-Jan-2020	23-Dec-2019				
				Day and Evening Time	Day and Evening Time	Night time		Day and Evening Time	Day and Evening Time	Night time	Day and Evening Time	Night time	Day and Evening Time	Night time
S8	Keeper 日本專業汽車美容連鎖		Car Washing Workshop	61.2	(Measurement was not conducted)	No Night-time operation	23	87.9	--	--	87.9	--	87.9	--
			Background	60.6	--	--	--	--	--	--	--	--	--	--
S9*	長城汽車維修公司		Garage without tyre replacement	(Measurement was not conducted)							91.0	--	91.0	--
S11*	合興汽車電器工程		Garage without tyre replacement	(Measurement was not conducted)							97.0	--	97.0	--
S12*	Good Year Autocare (輪胎電池服務中心)		Garage with tyre replacement	(Measurement was not conducted)							97.0	--	97.0	--

Source ID	Source	Photo	Description	Measured SPL, dB(A)			Measurement Distance, m	Measured SWL, dB(A)			SWL adopted in NIA1		Adopted SWL, dB(A)	
				9-Dec-2019	9-Jan-2020	23-Dec-2019		9-Dec-2019	9-Jan-2020	23-Dec-2019				
				Day and Evening Time	Day and Evening Time	Night time		Day and Evening Time	Day and Evening Time	Night time	Day and Evening Time	Night time	Day and Evening Time	Night time
S13*	新興汽車服務中心		Garage with tyre replacement	(Measurement was not conducted)							97.0	--	97.0	--
S14	Wai Kee Service Ltd. (偉基汽車有限公司)		Garage without tyre replacement	69.93189916	(Measurement was not conducted)	No Night-time operation	13	99.4	(Measurement was not conducted)	--	99.4	--	99.4	--
			Background	62.1	--	--	--	--	--	--	--	--	--	--
S15	Transport Department Designated Car Testing Centre (運輸署指定車輛測試中心)		Vehicle Testing Centre	66.7	(Measurement was not conducted)	--	13	95.1	(Measurement was not conducted)	--	95.1	--	95.1	--
			Background	62.1	--	--	--	--	--	--	--	--	--	--
S16***	進步膠輪電池有限公司		Garage with tyre replacement	(Measurement was not conducted)							96.1	--	96.1	--

Source ID	Source	Photo	Description	Measured SPL, dB(A)			Measurement Distance, m	Measured SWL, dB(A)			SWL adopted in NIA1		Adopted SWL, dB(A)	
				9-Dec-2019	9-Jan-2020	23-Dec-2019		9-Dec-2019	9-Jan-2020	23-Dec-2019				
				Day and Evening Time	Day and Evening Time	Night time		Day and Evening Time	Day and Evening Time	Night time	Day and Evening Time	Night time	Day and Evening Time	Night time
S17***	高加達精密機械工程有限公司		Garage without tyre replacement	(Measurement was not conducted)							88.0	--	88.0	--
S18***	力高汽車維修		Garage without tyre replacement	(Measurement was not conducted)							88.0	--	88.0	--
C1***	Fu Wah Industrial Building (富華工業大廈)		Cooling Tower	No longer exists										
C2***	Tsun Mee Industrial Building (晉美工業大廈)		Cooling Tower	No longer exists										
C3***			Cooling Tower											
C4***			Cooling Tower											
C5***			Cooling Tower											

Source ID	Source	Photo	Description	Measured SPL, dB(A)			Measurement Distance, m	Measured SWL, dB(A)			SWL adopted in NIA1		Adopted SWL, dB(A)	
				9-Dec-2019	9-Jan-2020	23-Dec-2019		9-Dec-2019	9-Jan-2020	23-Dec-2019				
				Day and Evening Time	Day and Evening Time	Night time		Day and Evening Time	Day and Evening Time	Night time	Day and Evening Time	Night time	Day and Evening Time	Night time
C6	Golden Town Industrial Building (錦城工業大廈)		Cooling Tower	(Measurement was not conducted, Reference is made to Product Catalogue)							77.6	77.6	77.6	77.6
C7			Cooling Tower								77.6	77.6	77.6	77.6
C8a	Flourish Food Manufactory Centre (榮華中心工業大廈)		Cooling Tower	(Measurement was not conducted, Reference is made to Product Catalogue)							80.1	80.1	80.1	80.1
C8b			Cooling Tower								80.1	80.1	80.1	80.1
C8c			Cooling Tower								80.1	80.1	80.1	80.1
C8d			Cooling Tower								80.1	80.1	80.1	80.1
C8e			Cooling Tower								80.1	80.1	80.1	80.1
C8f			Cooling Tower								80.1	80.1	80.1	80.1
C8g			Cooling Tower								79.1	79.1	79.1	79.1
C9a	The Rainbow (虹方)		Chiller	(Measurement was not conducted, Reference is made to Product Catalogue)							92.0	92.0	92.0	92.0
C9b			Chiller								92.0	92.0	92.0	92.0

Source ID	Source	Photo	Description	Measured SPL, dB(A)			Measurement Distance, m	Measured SWL, dB(A)			SWL adopted in NIA1		Adopted SWL, dB(A)	
				9-Dec-2019	9-Jan-2020	23-Dec-2019		9-Dec-2019	9-Jan-2020	23-Dec-2019				
				Day and Evening Time	Day and Evening Time	Night time		Day and Evening Time	Day and Evening Time	Night time	Day and Evening Time	Night time	Day and Evening Time	Night time
C10a	One North (朗壹廣場)		Cooling Tower	(Measurement was not conducted, Reference is made to Product Catalogue)							92.7	0.0	92.7	0.0
C10b			Cooling Tower								92.7	92.7	92.7	92.7
C10c			Cooling Tower								92.7	92.7	92.7	92.7
C10d			Cooling Tower								92.7	92.7	92.7	92.7
C10e			Cooling Tower								86.6	0.0	86.6	0.0
C10f			Cooling Tower								92.7	92.7	92.7	92.7
C10g			Cooling Tower								92.7	92.7	92.7	92.7
C10h			Chiller								90.0	0.0	90.0	0.0
C10i			Chiller								90.0	0.0	90.0	0.0

Redevelopment of Lai Sun Yuen Long Centre at Nos. 21-35 Wang Yip Street East, YLTL 362
Fixed Noise Sources at 300m area

Source ID	Source	Photo	Description	Measured SPL, dB(A)			Measurement Distance, m	Measured SWL, dB(A)			SWL adopted in NIA1		Adopted SWL, dB(A)	
				9-Dec-2019	9-Jan-2020	23-Dec-2019		9-Dec-2019	9-Jan-2020	23-Dec-2019				
				Day and Evening Time	Day and Evening Time	Night time		Day and Evening Time	Day and Evening Time	Night time	Day and Evening Time	Night time	Day and Evening Time	Night time
V1***	Fu Wah Industrial Building (富華工業大廈)	From NIA1	VRV	No longer exists										

Remarks

(*) Asterisk denotes that for the fixed noise source where no noisy operation and onsite measurement was conducted, the Adopted Sound Power Level (SWL) for this assessment is retrieved from the previous Environmental Assessment Report named "*Environmental Assessment for Redevelopment of Lai Sun Yuen Long Centre at No. 27 Wang Yip Street East, Yuen Long*" by ENVIRON Hong Kong Limited dated October 2013

(***) Asterisk denotes that for the fixed noise source is not found in NIA1, or where no noisy operation and onsite measurement was conducted thus the Adopted Sound Power Level (SWL) for this assessment is retrieved from NIA1

Appendix 5-2 Detailed Calculation of Fixed Source Noise Impact Assessment

Proposed Residential Development at Lai Sun Yuen Long Centre at No. 27 Wang Yip Steet East, Yuen Long
Detailed Calculation of Fixed Source Noise Impact Assessment
With Noise Barrier on top of clubhouse

NSR	x	y
F1-02	821083.8	834377.3

0 - Non screen
1 - Screen

Source	Source ID	x	y	Day and Evening Time SWL, dB(A)	Night Time SWL, dB(A)	Screening	Shortest Horizontal Distance, m	Distance Attenuation, dB(A)	Tonality Correction, dB(A)	Screening Correction, dB(A)	Façade Correction, dB(A)	Day and Evening Time SPL, Leq (30min) dB(A)	Night Time SPL, Leq (30min) dB(A)
On Lok Road Substation	S1a	821039	834312	88.1	84.6	1	79	-46	6	-10	3	41.2	37.7
On Lok Road Substation	S1b	821046	834308	88.1	84.6	1	79	-46	6	-10	3	41.1	37.6
On Lok Road Substation	S1c	821053	834302	88.1	84.6	1	81	-46	6	-10	3	40.9	37.4
On Lok Road Substation	S1d	821061	834297	88.1	84.6	1	84	-46	6	-10	3	40.6	37.1
On Lok Road Substation	S1e	821067	834292	88.1	84.6	1	87	-47	6	-10	3	40.3	36.8
On Lok Road Substation	S1f	821073	834288	88.1	84.6	1	90	-47	6	-10	3	40.0	36.5
Sum Kee Metal Company Limited	S2	821033	834339	93.1	0.0	1	64	-44	0	-10	3	42.0	0.0
健記汽車服冷氣電器	S3	821037	834352	91.0	0.0	1	53	-43	0	-10	3	41.5	0.0
裕記膠輪電池	S4	821025	834366	97.0	0.0	1	59	-43	0	-10	3	46.5	0.0
珠江車房	S5	821026	834385	97.8	0.0	1	58	-43	0	-10	3	47.5	0.0
元朗膠輪電池有限公司	S6	821063	834379	100.8	0.0	1	20	-34	0	-10	3	59.6	0.0
新界車房	S7	821080	834404	91.0	0.0	0	27	-37	0	0	3	57.2	0.0
Keeper 日本專業汽車美容連鎖	S8	821084	834416	87.9	0.0	0	39	-40	0	0	3	51.1	0.0
長城汽車維修公司	S9	821076	834425	91.0	0.0	0	49	-42	0	0	3	52.2	0.0
合興汽車電器工程	S11	821125	834467	97.0	0.0	0	99	-48	0	0	3	52.1	0.0
Good Year Autocare 輪胎電池服務中心	S12	821141	834490	97.0	0.0	0	126	-50	0	0	3	50.0	0.0
新興汽車服務中心	S13	821184	834554	97.0	0.0	0	203	-54	0	0	3	45.8	0.0
偉基汽車有限公司	S14	821198	834570	99.4	0.0	0	224	-55	0	0	3	47.4	0.0
Transport Department Designated Car Testing Centre (運輸署指定車輛測試中心)	S15	821270	834548	95.1	0.0	0	253	-56	0	0	3	42.0	0.0
進步膠輪電池有限公司	S16	821141	834490	96.1	0.0	0	126	-50	0	0	3	49.1	0.0
高加達精密機械工程有限公司	S17	821074	834396	88.0	0.0	0	21	-34	0	0	3	56.5	0.0
力高汽車維修	S18	821066	834385	88.0	0.0	1	19	-34	0	-10	3	47.3	0.0
Golden Town Industrial Building (錦城工業大廈) - Cooling Tower	C6	821180	834559	77.6	77.6	0	205	-54	0	0	3	26.3	26.3
	C7	821181	834561	77.6	77.6	0	208	-54	0	0	3	26.2	26.2
Flourish Food Manufactory Centre (榮華中心工業大廈) - Cooling Tower	C8a	821155	834171	80.1	80.1	1	218	-55	0	-10	3	18.3	18.3
	C8b	821154	834168	80.1	80.1	1	221	-55	0	-10	3	18.2	18.2
	C8c	821152	834166	80.1	80.1	1	222	-55	0	-10	3	18.2	18.2
	C8d	821149	834164	80.1	80.1	1	223	-55	0	-10	3	18.1	18.1
	C8e	821147	834167	80.1	80.1	1	220	-55	0	-10	3	18.2	18.2
	C8f	821145	834170	80.1	80.1	1	217	-55	0	-10	3	18.4	18.4
	C8g	821149	834170	79.1	79.1	1	217	-55	0	-10	3	17.4	17.4
The Rainbow (虹方) - Cooling Tower	C9a	820894	834369	92.0	92.0	1	190	-54	6	-10	3	37.4	37.4
	C9b	820889	834362	92.0	92.0	1	196	-54	6	-10	3	37.2	37.2
One North (朗壹廣場) - Cooling Tower	C10a	821111	834620	92.7	0.0	0	244	-56	0	0	3	39.9	0.0
	C10b	821108	834616	92.7	92.7	0	240	-56	0	0	3	40.1	40.1
	C10c	821060	834608	92.7	92.7	0	232	-55	0	0	3	40.4	40.4
	C10d	821065	834604	92.7	92.7	0	228	-55	0	0	3	40.5	40.5
	C10e	821070	834601	86.6	0.0	0	224	-55	0	0	3	34.6	0.0
	C10f	821079	834590	92.7	92.7	0	213	-55	0	0	3	41.1	41.1
	C10g	821076	834585	92.7	92.7	0	208	-54	0	0	3	41.3	41.3
One North (朗壹廣場) - Chiller	C10h	821113	834626	90.0	0.0	0	250	-56	6	0	3	43.0	0.0
	C10i	821072	834581	90.0	0.0	0	204	-54	6	0	3	44.8	0.0
											Predicted SPL, dB(A)	65	50

Note: (1) Horizontal distance has been applied for existing industrial buildings for a conservative approach.

Proposed Residential Development at Lai Sun Yuen Long Centre at No. 27 Wang Yip Steet East, Yuen Long
Detailed Calculation of Fixed Source Noise Impact Assessment
With Noise Barrier on top of clubhouse

NSR	x	y
F1-03	821085.2	834376.2

0 - Non screen
1 - Screen

Source	Source ID	x	y	Day and Evening Time SWL, dB(A)	Night Time SWL, dB(A)	Screening	Shortest Horizontal Distance, m	Distance Attenuation, dB(A)	Tonality Correction, dB(A)	Screening Correction, dB(A)	Façade Correction, dB(A)	Day and Evening Time SPL, Leq (30min) dB(A)	Night Time SPL, Leq (30min) dB(A)
On Lok Road Substation	S1a	821039	834312	88.1	84.6	1	79	-46	6	-10	3	41.2	37.7
On Lok Road Substation	S1b	821046	834308	88.1	84.6	1	79	-46	6	-10	3	41.1	37.6
On Lok Road Substation	S1c	821053	834302	88.1	84.6	1	81	-46	6	-10	3	41.0	37.5
On Lok Road Substation	S1d	821061	834297	88.1	84.6	1	83	-46	6	-10	3	40.7	37.2
On Lok Road Substation	S1e	821067	834292	88.1	84.6	1	86	-47	6	-10	3	40.4	36.9
On Lok Road Substation	S1f	821073	834288	88.1	84.6	1	89	-47	6	-10	3	40.1	36.6
Sum Kee Metal Company Limited	S2	821033	834339	93.1	0.0	1	65	-44	0	-10	3	41.9	0.0
健記汽車服冷氣電器	S3	821037	834352	91.0	0.0	1	54	-43	0	-10	3	41.3	0.0
裕記膠輪電池	S4	821025	834366	97.0	0.0	1	61	-44	0	-10	3	46.3	0.0
珠江車房	S5	821026	834385	97.8	0.0	1	60	-44	0	-10	3	47.2	0.0
元朗膠輪電池有限公司	S6	821063	834379	100.8	0.0	1	22	-35	0	-10	3	59.0	0.0
新界車房	S7	821080	834404	91.0	0.0	0	29	-37	0	0	3	56.8	0.0
Keeper 日本專業汽車美容連鎖	S8	821084	834416	87.9	0.0	0	40	-40	0	0	3	50.8	0.0
長城汽車維修公司	S9	821076	834425	91.0	0.0	0	50	-42	0	0	3	52.0	0.0
合興汽車電器工程	S11	821125	834467	97.0	0.0	0	99	-48	0	0	3	52.1	0.0
Good Year Autocare 輪胎電池服務中心	S12	821141	834490	97.0	0.0	0	126	-50	0	0	3	50.0	0.0
新興汽車服務中心	S13	821184	834554	97.0	0.0	0	204	-54	0	0	3	45.8	0.0
偉基汽車有限公司	S14	821198	834570	99.4	0.0	0	224	-55	0	0	3	47.4	0.0
Transport Department Designated Car Testing Centre (運輸署指定車輛測試中心)	S15	821270	834548	95.1	0.0	0	252	-56	0	0	3	42.1	0.0
進步膠輪電池有限公司	S16	821141	834490	96.1	0.0	0	127	-50	0	0	3	49.0	0.0
高加達精密機械工程有限公司	S17	821074	834396	88.0	0.0	0	23	-35	0	0	3	55.9	0.0
力高汽車維修	S18	821066	834385	88.0	0.0	0	21	-34	0	0	3	56.5	0.0
Golden Town Industrial Building (錦城工業大廈) - Cooling Tower	C6	821180	834559	77.6	77.6	0	205	-54	0	0	3	26.3	26.3
	C7	821181	834561	77.6	77.6	0	208	-54	0	0	3	26.2	26.2
Flourish Food Manufactory Centre (榮華中心工業大廈) - Cooling Tower	C8a	821155	834171	80.1	80.1	1	217	-55	0	-10	3	18.4	18.4
	C8b	821154	834168	80.1	80.1	1	219	-55	0	-10	3	18.3	18.3
	C8c	821152	834166	80.1	80.1	1	220	-55	0	-10	3	18.2	18.2
	C8d	821149	834164	80.1	80.1	1	221	-55	0	-10	3	18.2	18.2
	C8e	821147	834167	80.1	80.1	1	218	-55	0	-10	3	18.3	18.3
	C8f	821145	834170	80.1	80.1	1	215	-55	0	-10	3	18.4	18.4
	C8g	821149	834170	79.1	79.1	1	216	-55	0	-10	3	17.4	17.4
The Rainbow (虹方) - Cooling Tower	C9a	820894	834369	92.0	92.0	1	192	-54	6	-10	3	37.3	37.3
	C9b	820889	834362	92.0	92.0	1	197	-54	6	-10	3	37.1	37.1
One North (朗壹廣場) - Cooling Tower	C10a	821111	834620	92.7	0.0	0	245	-56	0	0	3	39.9	0.0
	C10b	821108	834616	92.7	92.7	0	241	-56	0	0	3	40.1	40.1
	C10c	821060	834608	92.7	92.7	0	233	-55	0	0	3	40.3	40.3
	C10d	821065	834604	92.7	92.7	0	229	-55	0	0	3	40.5	40.5
	C10e	821070	834601	86.6	0.0	0	225	-55	0	0	3	34.5	0.0
	C10f	821079	834590	92.7	92.7	0	214	-55	0	0	3	41.1	41.1
	C10g	821076	834585	92.7	92.7	0	209	-54	0	0	3	41.3	41.3
One North (朗壹廣場) - Chiller	C10h	821113	834626	90.0	0.0	0	251	-56	6	0	3	43.0	0.0
	C10i	821072	834581	90.0	0.0	0	205	-54	6	0	3	44.8	0.0
											Predicted SPL, dB(A)	65	50

Note: (1) Horizontal distance has been applied for existing industrial buildings for a conservative approach.

Proposed Residential Development at Lai Sun Yuen Long Centre at No. 27 Wang Yip Steet East, Yuen Long
Detailed Calculation of Fixed Source Noise Impact Assessment
With Noise Barrier on top of clubhouse

NSR	x	y
F1-07	821093.0	834370.6

0 - Non screen
1 - Screen

Source	Source ID	x	y	Day and Evening Time SWL, dB(A)	Night Time SWL, dB(A)	Screening	Shortest Horizontal Distance, m	Distance Attenuation, dB(A)	Tonality Correction, dB(A)	Screening Correction, dB(A)	Façade Correction, dB(A)	Day and Evening Time SPL, Leq (30min) dB(A)	Night Time SPL, Leq (30min) dB(A)
On Lok Road Substation	S1a	821039	834312	88.1	84.6	1	79	-46	6	-10	3	41.1	37.6
On Lok Road Substation	S1b	821046	834308	88.1	84.6	1	79	-46	6	-10	3	41.2	37.7
On Lok Road Substation	S1c	821053	834302	88.1	84.6	1	79	-46	6	-10	3	41.1	37.6
On Lok Road Substation	S1d	821061	834297	88.1	84.6	1	81	-46	6	-10	3	41.0	37.5
On Lok Road Substation	S1e	821067	834292	88.1	84.6	1	83	-46	6	-10	3	40.8	37.3
On Lok Road Substation	S1f	821073	834288	88.1	84.6	1	85	-47	6	-10	3	40.5	37.0
Sum Kee Metal Company Limited	S2	821033	834339	93.1	0.0	1	68	-45	0	-10	3	41.4	0.0
健記汽車服冷氣電器	S3	821037	834352	91.0	0.0	1	59	-43	0	-10	3	40.6	0.0
裕記膠輪電池	S4	821025	834366	97.0	0.0	1	68	-45	0	-10	3	45.4	0.0
珠江車房	S5	821026	834385	97.8	0.0	1	69	-45	0	-10	3	46.1	0.0
元朗膠輪電池有限公司	S6	821063	834379	100.8	0.0	1	31	-38	0	-10	3	56.1	0.0
新界車房	S7	821080	834404	91.0	0.0	0	36	-39	0	0	3	54.8	0.0
Keeper 日本專業汽車美容連鎖	S8	821084	834416	87.9	0.0	0	47	-41	0	0	3	49.5	0.0
長城汽車維修公司	S9	821076	834425	91.0	0.0	0	57	-43	0	0	3	50.8	0.0
合興汽車電器工程	S11	821125	834467	97.0	0.0	0	101	-48	0	0	3	51.9	0.0
Good Year Autocare 輪胎電池服務中心	S12	821141	834490	97.0	0.0	0	128	-50	0	0	3	49.8	0.0
新興汽車服務中心	S13	821184	834554	97.0	0.0	0	205	-54	0	0	3	45.8	0.0
偉基汽車有限公司	S14	821198	834570	99.4	0.0	0	225	-55	0	0	3	47.4	0.0
Transport Department Designated Car Testing Centre (運輸署指定車輛測試中心)	S15	821270	834548	95.1	0.0	0	251	-56	0	0	3	42.1	0.0
進步膠輪電池有限公司	S16	821141	834490	96.1	0.0	0	129	-50	0	0	3	48.9	0.0
高加達精密機械工程有限公司	S17	821074	834396	88.0	0.0	0	32	-38	0	0	3	53.0	0.0
力高汽車維修	S18	821066	834385	88.0	0.0	0	31	-38	0	0	3	53.3	0.0
Golden Town Industrial Building (錦城工業大廈) - Cooling Tower	C6	821180	834559	77.6	77.6	0	207	-54	0	0	3	26.3	26.3
	C7	821181	834561	77.6	77.6	0	210	-54	0	0	3	26.1	26.1
Flourish Food Manufactory Centre (榮華中心工業大廈) - Cooling Tower	C8a	821155	834171	80.1	80.1	1	209	-54	0	-10	3	18.7	18.7
	C8b	821154	834168	80.1	80.1	1	212	-55	0	-10	3	18.6	18.6
	C8c	821152	834166	80.1	80.1	1	213	-55	0	-10	3	18.5	18.5
	C8d	821149	834164	80.1	80.1	1	214	-55	0	-10	3	18.5	18.5
	C8e	821147	834167	80.1	80.1	1	211	-54	0	-10	3	18.6	18.6
	C8f	821145	834170	80.1	80.1	1	208	-54	0	-10	3	18.7	18.7
	C8g	821149	834170	79.1	79.1	1	208	-54	0	-10	3	17.7	17.7
The Rainbow (虹方) - Cooling Tower	C9a	820894	834369	92.0	92.0	1	199	-54	6	-10	3	37.0	37.0
	C9b	820889	834362	92.0	92.0	1	205	-54	6	-10	3	36.8	36.8
One North (朗壹廣場) - Cooling Tower	C10a	821111	834620	92.7	0.0	0	250	-56	0	0	3	39.7	0.0
	C10b	821108	834616	92.7	92.7	0	246	-56	0	0	3	39.9	39.9
	C10c	821060	834608	92.7	92.7	0	240	-56	0	0	3	40.1	40.1
	C10d	821065	834604	92.7	92.7	0	236	-55	0	0	3	40.3	40.3
	C10e	821070	834601	86.6	0.0	0	232	-55	0	0	3	34.3	0.0
	C10f	821079	834590	92.7	92.7	0	220	-55	0	0	3	40.9	40.9
	C10g	821076	834585	92.7	92.7	0	215	-55	0	0	3	41.0	41.0
One North (朗壹廣場) - Chiller	C10h	821113	834626	90.0	0.0	0	256	-56	6	0	3	42.8	0.0
	C10i	821072	834581	90.0	0.0	0	211	-54	6	0	3	44.5	0.0
											Predicted SPL, dB(A)	63	50

Note: (1) Horizontal distance has been applied for existing industrial buildings for a conservative approach.

Proposed Residential Development at Lai Sun Yuen Long Centre at No. 27 Wang Yip Steet East, Yuen Long
Detailed Calculation of Fixed Source Noise Impact Assessment
With Noise Barrier on top of clubhouse

NSR	x	y
F1-09	821099.9	834365.6

0 - Non screen
1 - Screen

Source	Source ID	x	y	Day and Evening Time SWL, dB(A)	Night Time SWL, dB(A)	Screening	Shortest Horizontal Distance, m	Distance Attenuation, dB(A)	Tonality Correction, dB(A)	Screening Correction, dB(A)	Façade Correction, dB(A)	Day and Evening Time SPL, Leq (30min) dB(A)	Night Time SPL, Leq (30min) dB(A)
On Lok Road Substation	S1a	821039	834312	88.1	84.6	1	81	-46	6	-10	3	41.0	37.5
On Lok Road Substation	S1b	821046	834308	88.1	84.6	1	79	-46	6	-10	3	41.1	37.6
On Lok Road Substation	S1c	821053	834302	88.1	84.6	1	79	-46	6	-10	3	41.2	37.7
On Lok Road Substation	S1d	821061	834297	88.1	84.6	1	79	-46	6	-10	3	41.1	37.6
On Lok Road Substation	S1e	821067	834292	88.1	84.6	1	80	-46	6	-10	3	41.0	37.5
On Lok Road Substation	S1f	821073	834288	88.1	84.6	1	82	-46	6	-10	3	40.8	37.3
Sum Kee Metal Company Limited	S2	821033	834339	93.1	0.0	1	73	-45	0	-10	3	40.9	0.0
健記汽車服冷氣電器	S3	821037	834352	91.0	0.0	1	64	-44	0	-10	3	39.8	0.0
裕記膠輪電池	S4	821025	834366	97.0	0.0	1	75	-45	0	-10	3	44.5	0.0
珠江車房	S5	821026	834385	97.8	0.0	1	77	-46	0	-10	3	45.1	0.0
元朗膠輪電池有限公司	S6	821063	834379	100.8	0.0	1	39	-40	0	-10	3	54.0	0.0
新界車房	S7	821080	834404	91.0	0.0	0	44	-41	0	0	3	53.2	0.0
Keeper 日本專業汽車美容連鎖	S8	821084	834416	87.9	0.0	0	53	-42	0	0	3	48.4	0.0
長城汽車維修公司	S9	821076	834425	91.0	0.0	0	64	-44	0	0	3	49.8	0.0
合興汽車電器工程	S11	821125	834467	97.0	0.0	0	104	-48	0	0	3	51.6	0.0
Good Year Autocare 輪胎電池服務中心	S12	821141	834490	97.0	0.0	0	131	-50	0	0	3	49.7	0.0
新興汽車服務中心	S13	821184	834554	97.0	0.0	0	207	-54	0	0	3	45.7	0.0
偉基汽車有限公司	S14	821198	834570	99.4	0.0	0	226	-55	0	0	3	47.3	0.0
Transport Department Designated Car Testing Centre (運輸署指定車輛測試中心)	S15	821270	834548	95.1	0.0	0	249	-56	0	0	3	42.2	0.0
進步膠輪電池有限公司	S16	821141	834490	96.1	0.0	0	131	-50	0	0	3	48.8	0.0
高加達精密機械工程有限公司	S17	821074	834396	88.0	0.0	0	40	-40	0	0	3	51.0	0.0
力高汽車維修	S18	821066	834385	88.0	0.0	0	39	-40	0	0	3	51.2	0.0
Golden Town Industrial Building (錦城工業大廈) - Cooling Tower	C6	821180	834559	77.6	77.6	0	209	-54	0	0	3	26.2	26.2
	C7	821181	834561	77.6	77.6	0	212	-55	0	0	3	26.1	26.1
Flourish Food Manufactory Centre (榮華中心工業大廈) - Cooling Tower	C8a	821155	834171	80.1	80.1	1	202	-54	0	-10	3	19.0	19.0
	C8b	821154	834168	80.1	80.1	1	205	-54	0	-10	3	18.8	18.8
	C8c	821152	834166	80.1	80.1	1	206	-54	0	-10	3	18.8	18.8
	C8d	821149	834164	80.1	80.1	1	207	-54	0	-10	3	18.8	18.8
	C8e	821147	834167	80.1	80.1	1	204	-54	0	-10	3	18.9	18.9
	C8f	821145	834170	80.1	80.1	1	201	-54	0	-10	3	19.0	19.0
	C8g	821149	834170	79.1	79.1	1	201	-54	0	-10	3	18.0	18.0
The Rainbow (虹方) - Cooling Tower	C9a	820894	834369	92.0	92.0	1	206	-54	6	-10	3	36.7	36.7
	C9b	820889	834362	92.0	92.0	1	211	-54	6	-10	3	36.5	36.5
One North (朗壹廣場) - Cooling Tower	C10a	821111	834620	92.7	0.0	0	255	-56	0	0	3	39.6	0.0
	C10b	821108	834616	92.7	92.7	0	251	-56	0	0	3	39.7	39.7
	C10c	821060	834608	92.7	92.7	0	246	-56	0	0	3	39.9	39.9
	C10d	821065	834604	92.7	92.7	0	241	-56	0	0	3	40.0	40.0
	C10e	821070	834601	86.6	0.0	0	237	-56	0	0	3	34.1	0.0
	C10f	821079	834590	92.7	92.7	0	225	-55	0	0	3	40.6	40.6
	C10g	821076	834585	92.7	92.7	0	221	-55	0	0	3	40.8	40.8
One North (朗壹廣場) - Chiller	C10h	821113	834626	90.0	0.0	0	260	-56	6	0	3	42.7	0.0
	C10i	821072	834581	90.0	0.0	0	217	-55	6	0	3	44.3	0.0
											Predicted SPL, dB(A)	62	50

Note: (1) Horizontal distance has been applied for existing industrial buildings for a conservative approach.

Proposed Residential Development at Lai Sun Yuen Long Centre at No. 27 Wang Yip Steet East, Yuen Long
Detailed Calculation of Fixed Source Noise Impact Assessment
With Noise Barrier on top of clubhouse

NSR	x	y
F1-12	821104.6	834362.3

0 - Non screen
1 - Screen

Source	Source ID	x	y	Day and Evening Time SWL, dB(A)	Night Time SWL, dB(A)	Screening	Shortest Horizontal Distance, m	Distance Attenuation, dB(A)	Tonality Correction, dB(A)	Screening Correction, dB(A)	Façade Correction, dB(A)	Day and Evening Time SPL, Leq (30min) dB(A)	Night Time SPL, Leq (30min) dB(A)
On Lok Road Substation	S1a	821039	834312	88.1	84.6	1	82	-46	6	-10	3	40.8	37.3
On Lok Road Substation	S1b	821046	834308	88.1	84.6	1	80	-46	6	-10	3	41.0	37.5
On Lok Road Substation	S1c	821053	834302	88.1	84.6	1	79	-46	6	-10	3	41.1	37.6
On Lok Road Substation	S1d	821061	834297	88.1	84.6	1	79	-46	6	-10	3	41.2	37.7
On Lok Road Substation	S1e	821067	834292	88.1	84.6	1	80	-46	6	-10	3	41.1	37.6
On Lok Road Substation	S1f	821073	834288	88.1	84.6	1	81	-46	6	-10	3	40.9	37.5
Sum Kee Metal Company Limited	S2	821033	834339	93.1	0.0	1	76	-46	0	-10	3	40.5	0.0
健記汽車服冷氣電器	S3	821037	834352	91.0	0.0	1	68	-45	0	-10	3	39.3	0.0
裕記膠輪電池	S4	821025	834366	97.0	0.0	1	79	-46	0	-10	3	44.0	0.0
珠江車房	S5	821026	834385	97.8	0.0	1	82	-46	0	-10	3	44.5	0.0
元朗膠輪電池有限公司	S6	821063	834379	100.8	0.0	1	44	-41	0	-10	3	52.9	0.0
新界車房	S7	821080	834404	91.0	0.0	0	49	-42	0	0	3	52.2	0.0
Keeper 日本專業汽車美容連鎖	S8	821084	834416	87.9	0.0	0	58	-43	0	0	3	47.7	0.0
長城汽車維修公司	S9	821076	834425	91.0	0.0	0	69	-45	0	0	3	49.2	0.0
合興汽車電器工程	S11	821125	834467	97.0	0.0	0	107	-49	0	0	3	51.4	0.0
Good Year Autocare 輪胎電池服務中心	S12	821141	834490	97.0	0.0	0	132	-50	0	0	3	49.6	0.0
新興汽車服務中心	S13	821184	834554	97.0	0.0	0	208	-54	0	0	3	45.6	0.0
偉基汽車有限公司	S14	821198	834570	99.4	0.0	0	227	-55	0	0	3	47.3	0.0
Transport Department Designated Car Testing Centre (運輸署指定車輛測試中心)	S15	821270	834548	95.1	0.0	0	249	-56	0	0	3	42.2	0.0
進步膠輪電池有限公司	S16	821141	834490	96.1	0.0	0	133	-50	0	0	3	48.6	0.0
高加達精密機械工程有限公司	S17	821074	834396	88.0	0.0	0	46	-41	0	0	3	49.8	0.0
力高汽車維修	S18	821066	834385	88.0	0.0	0	45	-41	0	0	3	50.0	0.0
Golden Town Industrial Building (錦城工業大廈) - Cooling Tower	C6	821180	834559	77.6	77.6	0	210	-54	0	0	3	26.1	26.1
	C7	821181	834561	77.6	77.6	0	213	-55	0	0	3	26.0	26.0
Flourish Food Manufactory Centre (榮華中心工業大廈) - Cooling Tower	C8a	821155	834171	80.1	80.1	1	198	-54	0	-10	3	19.2	19.2
	C8b	821154	834168	80.1	80.1	1	201	-54	0	-10	3	19.0	19.0
	C8c	821152	834166	80.1	80.1	1	202	-54	0	-10	3	19.0	19.0
	C8d	821149	834164	80.1	80.1	1	203	-54	0	-10	3	18.9	18.9
	C8e	821147	834167	80.1	80.1	1	200	-54	0	-10	3	19.1	19.1
	C8f	821145	834170	80.1	80.1	1	197	-54	0	-10	3	19.2	19.2
	C8g	821149	834170	79.1	79.1	1	197	-54	0	-10	3	18.2	18.2
The Rainbow (虹方) - Cooling Tower	C9a	820894	834369	92.0	92.0	1	211	-54	6	-10	3	36.5	36.5
	C9b	820889	834362	92.0	92.0	1	216	-55	6	-10	3	36.3	36.3
One North (朗壹廣場) - Cooling Tower	C10a	821111	834620	92.7	0.0	0	258	-56	0	0	3	39.5	0.0
	C10b	821108	834616	92.7	92.7	0	254	-56	0	0	3	39.6	39.6
	C10c	821060	834608	92.7	92.7	0	250	-56	0	0	3	39.7	39.7
	C10d	821065	834604	92.7	92.7	0	245	-56	0	0	3	39.9	39.9
	C10e	821070	834601	86.6	0.0	0	241	-56	0	0	3	33.9	0.0
	C10f	821079	834590	92.7	92.7	0	229	-55	0	0	3	40.5	40.5
	C10g	821076	834585	92.7	92.7	0	225	-55	0	0	3	40.7	40.7
One North (朗壹廣場) - Chiller	C10h	821113	834626	90.0	0.0	0	263	-56	6	0	3	42.6	0.0
	C10i	821072	834581	90.0	0.0	0	221	-55	6	0	3	44.1	0.0
											Predicted SPL, dB(A)	61	50

Note: (1) Horizontal distance has been applied for existing industrial buildings for a conservative approach.

Proposed Residential Development at Lai Sun Yuen Long Centre at No. 27 Wang Yip Steet East, Yuen Long
Detailed Calculation of Fixed Source Noise Impact Assessment
With Noise Barrier on top of clubhouse

NSR	x	y
F1-14	821111.5	834357.3

0 - Non screen
1 - Screen

Source	Source ID	x	y	Day and Evening Time SWL, dB(A)	Night Time SWL, dB(A)	Screening	Shortest Horizontal Distance, m	Distance Attenuation, dB(A)	Tonality Correction, dB(A)	Screening Correction, dB(A)	Façade Correction, dB(A)	Day and Evening Time SPL, Leq (30min) dB(A)	Night Time SPL, Leq (30min) dB(A)
On Lok Road Substation	S1a	821039	834312	88.1	84.6	1	85	-47	6	-10	3	40.5	37.0
On Lok Road Substation	S1b	821046	834308	88.1	84.6	1	82	-46	6	-10	3	40.8	37.3
On Lok Road Substation	S1c	821053	834302	88.1	84.6	1	80	-46	6	-10	3	41.0	37.5
On Lok Road Substation	S1d	821061	834297	88.1	84.6	1	79	-46	6	-10	3	41.1	37.6
On Lok Road Substation	S1e	821067	834292	88.1	84.6	1	79	-46	6	-10	3	41.2	37.7
On Lok Road Substation	S1f	821073	834288	88.1	84.6	1	79	-46	6	-10	3	41.1	37.6
Sum Kee Metal Company Limited	S2	821033	834339	93.1	0.0	1	81	-46	0	-10	3	39.9	0.0
健記汽車服冷氣電器	S3	821037	834352	91.0	0.0	1	75	-45	0	-10	3	38.5	0.0
裕記膠輪電池	S4	821025	834366	97.0	0.0	1	87	-47	0	-10	3	43.3	0.0
珠江車房	S5	821026	834385	97.8	0.0	1	90	-47	0	-10	3	43.7	0.0
元朗膠輪電池有限公司	S6	821063	834379	100.8	0.0	1	53	-42	0	-10	3	51.4	0.0
新界車房	S7	821080	834404	91.0	0.0	0	57	-43	0	0	3	50.9	0.0
Keeper 日本專業汽車美容連鎖	S8	821084	834416	87.9	0.0	0	65	-44	0	0	3	46.6	0.0
長城汽車維修公司	S9	821076	834425	91.0	0.0	0	77	-46	0	0	3	48.3	0.0
合興汽車電器工程	S11	821125	834467	97.0	0.0	0	110	-49	0	0	3	51.1	0.0
Good Year Autocare 輪胎電池服務中心	S12	821141	834490	97.0	0.0	0	136	-51	0	0	3	49.4	0.0
新興汽車服務中心	S13	821184	834554	97.0	0.0	0	210	-54	0	0	3	45.6	0.0
偉基汽車有限公司	S14	821198	834570	99.4	0.0	0	229	-55	0	0	3	47.2	0.0
Transport Department Designated Car Testing Centre (運輸署指定車輛測試中心)	S15	821270	834548	95.1	0.0	0	248	-56	0	0	3	42.2	0.0
進步膠輪電池有限公司	S16	821141	834490	96.1	0.0	0	136	-51	0	0	3	48.4	0.0
高加達精密機械工程有限公司	S17	821074	834396	88.0	0.0	0	54	-43	0	0	3	48.4	0.0
力高汽車維修	S18	821066	834385	88.0	0.0	0	53	-43	0	0	3	48.5	0.0
Golden Town Industrial Building (錦城工業大廈) - Cooling Tower	C6	821180	834559	77.6	77.6	0	213	-55	0	0	3	26.0	26.0
	C7	821181	834561	77.6	77.6	0	215	-55	0	0	3	25.9	25.9
Flourish Food Manufactory Centre (榮華中心工業大廈) - Cooling Tower	C8a	821155	834171	80.1	80.1	1	191	-54	0	-10	3	19.5	19.5
	C8b	821154	834168	80.1	80.1	1	194	-54	0	-10	3	19.3	19.3
	C8c	821152	834166	80.1	80.1	1	195	-54	0	-10	3	19.3	19.3
	C8d	821149	834164	80.1	80.1	1	197	-54	0	-10	3	19.2	19.2
	C8e	821147	834167	80.1	80.1	1	194	-54	0	-10	3	19.3	19.3
	C8f	821145	834170	80.1	80.1	1	191	-54	0	-10	3	19.5	19.5
	C8g	821149	834170	79.1	79.1	1	191	-54	0	-10	3	18.5	18.5
The Rainbow (虹方) - Cooling Tower	C9a	820894	834369	92.0	92.0	1	218	-55	6	-10	3	36.2	36.2
	C9b	820889	834362	92.0	92.0	1	223	-55	6	-10	3	36.0	36.0
One North (朗壹廣場) - Cooling Tower	C10a	821111	834620	92.7	0.0	0	263	-56	0	0	3	39.3	0.0
	C10b	821108	834616	92.7	92.7	0	259	-56	0	0	3	39.4	39.4
	C10c	821060	834608	92.7	92.7	0	256	-56	0	0	3	39.5	39.5
	C10d	821065	834604	92.7	92.7	0	251	-56	0	0	3	39.7	39.7
	C10e	821070	834601	86.6	0.0	0	247	-56	0	0	3	33.7	0.0
	C10f	821079	834590	92.7	92.7	0	235	-55	0	0	3	40.3	40.3
	C10g	821076	834585	92.7	92.7	0	231	-55	0	0	3	40.4	40.4
One North (朗壹廣場) - Chiller	C10h	821113	834626	90.0	0.0	0	268	-57	6	0	3	42.4	0.0
	C10i	821072	834581	90.0	0.0	0	227	-55	6	0	3	43.9	0.0
											Predicted SPL, dB(A)	61	50

Note: (1) Horizontal distance has been applied for existing industrial buildings for a conservative approach.

Proposed Residential Development at Lai Sun Yuen Long Centre at No. 27 Wang Yip Steet East, Yuen Long
Detailed Calculation of Fixed Source Noise Impact Assessment
With Noise Barrier on top of clubhouse

NSR	x	y
F1-16	821115.2	834354.6

0 - Non screen
1 - Screen

Source	Source ID	x	y	Day and Evening Time SWL, dB(A)	Night Time SWL, dB(A)	Screening	Shortest Horizontal Distance, m	Distance Attenuation, dB(A)	Tonality Correction, dB(A)	Screening Correction, dB(A)	Façade Correction, dB(A)	Day and Evening Time SPL, Leq (30min) dB(A)	Night Time SPL, Leq (30min) dB(A)
On Lok Road Substation	S1a	821039	834312	88.1	84.6	1	87	-47	6	-10	3	40.3	36.8
On Lok Road Substation	S1b	821046	834308	88.1	84.6	1	84	-46	6	-10	3	40.6	37.1
On Lok Road Substation	S1c	821053	834302	88.1	84.6	1	81	-46	6	-10	3	40.9	37.4
On Lok Road Substation	S1d	821061	834297	88.1	84.6	1	80	-46	6	-10	3	41.1	37.6
On Lok Road Substation	S1e	821067	834292	88.1	84.6	1	79	-46	6	-10	3	41.2	37.7
On Lok Road Substation	S1f	821073	834288	88.1	84.6	1	79	-46	6	-10	3	41.1	37.7
Sum Kee Metal Company Limited	S2	821033	834339	93.1	0.0	1	84	-47	0	-10	3	39.6	0.0
健記汽車服冷氣電器	S3	821037	834352	91.0	0.0	1	78	-46	0	-10	3	38.1	0.0
裕記膠輪電池	S4	821025	834366	97.0	0.0	1	91	-47	0	-10	3	42.9	0.0
珠江車房	S5	821026	834385	97.8	0.0	1	94	-47	0	-10	3	43.3	0.0
元朗膠輪電池有限公司	S6	821063	834379	100.8	0.0	1	57	-43	0	-10	3	50.7	0.0
新界車房	S7	821080	834404	91.0	0.0	0	61	-44	0	0	3	50.3	0.0
Keeper 日本專業汽車美容連鎖	S8	821084	834416	87.9	0.0	0	69	-45	0	0	3	46.1	0.0
長城汽車維修公司	S9	821076	834425	91.0	0.0	0	81	-46	0	0	3	47.8	0.0
合興汽車電器工程	S11	821125	834467	97.0	0.0	0	113	-49	0	0	3	51.0	0.0
Good Year Autocare 輪胎電池服務中心	S12	821141	834490	97.0	0.0	0	137	-51	0	0	3	49.2	0.0
新興汽車服務中心	S13	821184	834554	97.0	0.0	0	211	-54	0	0	3	45.5	0.0
偉基汽車有限公司	S14	821198	834570	99.4	0.0	0	230	-55	0	0	3	47.2	0.0
Transport Department Designated Car Testing Centre (運輸署指定車輛測試中心)	S15	821270	834548	95.1	0.0	0	248	-56	0	0	3	42.2	0.0
進步膠輪電池有限公司	S16	821141	834490	96.1	0.0	0	138	-51	0	0	3	48.3	0.0
高加達精密機械工程有限公司	S17	821074	834396	88.0	0.0	0	58	-43	0	0	3	47.7	0.0
力高汽車維修	S18	821066	834385	88.0	0.0	0	58	-43	0	0	3	47.8	0.0
Golden Town Industrial Building (錦城工業大廈) - Cooling Tower	C6	821180	834559	77.6	77.6	0	214	-55	0	0	3	26.0	26.0
	C7	821181	834561	77.6	77.6	0	217	-55	0	0	3	25.9	25.9
Flourish Food Manufactory Centre (榮華中心工業大廈) - Cooling Tower	C8a	821155	834171	80.1	80.1	1	188	-53	0	-10	3	19.6	19.6
	C8b	821154	834168	80.1	80.1	1	191	-54	0	-10	3	19.5	19.5
	C8c	821152	834166	80.1	80.1	1	192	-54	0	-10	3	19.4	19.4
	C8d	821149	834164	80.1	80.1	1	193	-54	0	-10	3	19.4	19.4
	C8e	821147	834167	80.1	80.1	1	190	-54	0	-10	3	19.5	19.5
	C8f	821145	834170	80.1	80.1	1	187	-53	0	-10	3	19.6	19.6
	C8g	821149	834170	79.1	79.1	1	187	-53	0	-10	3	18.6	18.6
The Rainbow (虹方) - Cooling Tower	C9a	820894	834369	92.0	92.0	1	222	-55	6	-10	3	36.1	36.1
	C9b	820889	834362	92.0	92.0	1	227	-55	6	-10	3	35.9	35.9
One North (朗壹廣場) - Cooling Tower	C10a	821111	834620	92.7	0.0	0	265	-56	0	0	3	39.2	0.0
	C10b	821108	834616	92.7	92.7	0	262	-56	0	0	3	39.3	39.3
	C10c	821060	834608	92.7	92.7	0	259	-56	0	0	3	39.4	39.4
	C10d	821065	834604	92.7	92.7	0	255	-56	0	0	3	39.6	39.6
	C10e	821070	834601	86.6	0.0	0	251	-56	0	0	3	33.6	0.0
	C10f	821079	834590	92.7	92.7	0	238	-56	0	0	3	40.2	40.2
	C10g	821076	834585	92.7	92.7	0	234	-55	0	0	3	40.3	40.3
One North (朗壹廣場) - Chiller	C10h	821113	834626	90.0	0.0	0	271	-57	6	0	3	42.3	0.0
	C10i	821072	834581	90.0	0.0	0	230	-55	6	0	3	43.8	0.0
											Predicted SPL, dB(A)	60	50

Note: (1) Horizontal distance has been applied for existing industrial buildings for a conservative approach.

Proposed Residential Development at Lai Sun Yuen Long Centre at No. 27 Wang Yip Steet East, Yuen Long
Detailed Calculation of Fixed Source Noise Impact Assessment
With Noise Barrier on top of clubhouse

NSR	x	y
F1-19	821120.8	834350.6

0 - Non screen
1 - Screen

Source	Source ID	x	y	Day and Evening Time SWL, dB(A)	Night Time SWL, dB(A)	Screening	Shortest Horizontal Distance, m	Distance Attenuation, dB(A)	Tonality Correction, dB(A)	Screening Correction, dB(A)	Façade Correction, dB(A)	Day and Evening Time SPL, Leq (30min) dB(A)	Night Time SPL, Leq (30min) dB(A)
On Lok Road Substation	S1a	821039	834312	88.1	84.6	1	90	-47	6	-10	3	40.0	36.5
On Lok Road Substation	S1b	821046	834308	88.1	84.6	1	86	-47	6	-10	3	40.4	36.9
On Lok Road Substation	S1c	821053	834302	88.1	84.6	1	83	-46	6	-10	3	40.7	37.2
On Lok Road Substation	S1d	821061	834297	88.1	84.6	1	81	-46	6	-10	3	41.0	37.5
On Lok Road Substation	S1e	821067	834292	88.1	84.6	1	79	-46	6	-10	3	41.1	37.6
On Lok Road Substation	S1f	821073	834288	88.1	84.6	1	79	-46	6	-10	3	41.2	37.7
Sum Kee Metal Company Limited	S2	821033	834339	93.1	0.0	1	89	-47	0	-10	3	39.1	0.0
健記汽車服冷氣電器	S3	821037	834352	91.0	0.0	1	84	-46	0	-10	3	37.5	0.0
裕記膠輪電池	S4	821025	834366	97.0	0.0	1	97	-48	0	-10	3	42.3	0.0
珠江車房	S5	821026	834385	97.8	0.0	1	101	-48	0	-10	3	42.7	0.0
元朗膠輪電池有限公司	S6	821063	834379	100.8	0.0	1	64	-44	0	-10	3	49.7	0.0
新界車房	S7	821080	834404	91.0	0.0	0	68	-45	0	0	3	49.4	0.0
Keeper 日本專業汽車美容連鎖	S8	821084	834416	87.9	0.0	0	75	-46	0	0	3	45.4	0.0
長城汽車維修公司	S9	821076	834425	91.0	0.0	0	87	-47	0	0	3	47.2	0.0
合興汽車電器工程	S11	821125	834467	97.0	0.0	0	116	-49	0	0	3	50.7	0.0
Good Year Autocare 輪胎電池服務中心	S12	821141	834490	97.0	0.0	0	140	-51	0	0	3	49.1	0.0
新興汽車服務中心	S13	821184	834554	97.0	0.0	0	213	-55	0	0	3	45.4	0.0
偉基汽車有限公司	S14	821198	834570	99.4	0.0	0	232	-55	0	0	3	47.1	0.0
Transport Department Designated Car Testing Centre (運輸署指定車輛測試中心)	S15	821270	834548	95.1	0.0	0	247	-56	0	0	3	42.2	0.0
進步膠輪電池有限公司	S16	821141	834490	96.1	0.0	0	141	-51	0	0	3	48.1	0.0
高加達精密機械工程有限公司	S17	821074	834396	88.0	0.0	0	65	-44	0	0	3	46.7	0.0
力高汽車維修	S18	821066	834385	88.0	0.0	0	65	-44	0	0	3	46.8	0.0
Golden Town Industrial Building (錦城工業大廈) - Cooling Tower	C6	821180	834559	77.6	77.6	0	216	-55	0	0	3	25.9	25.9
	C7	821181	834561	77.6	77.6	0	219	-55	0	0	3	25.8	25.8
Flourish Food Manufactory Centre (榮華中心工業大廈) - Cooling Tower	C8a	821155	834171	80.1	80.1	1	183	-53	0	-10	3	19.9	19.9
	C8b	821154	834168	80.1	80.1	1	186	-53	0	-10	3	19.7	19.7
	C8c	821152	834166	80.1	80.1	1	187	-53	0	-10	3	19.7	19.7
	C8d	821149	834164	80.1	80.1	1	188	-54	0	-10	3	19.6	19.6
	C8e	821147	834167	80.1	80.1	1	186	-53	0	-10	3	19.7	19.7
	C8f	821145	834170	80.1	80.1	1	183	-53	0	-10	3	19.8	19.8
	C8g	821149	834170	79.1	79.1	1	183	-53	0	-10	3	18.9	18.9
The Rainbow (虹方) - Cooling Tower	C9a	820894	834369	92.0	92.0	1	228	-55	6	-10	3	35.8	35.8
	C9b	820889	834362	92.0	92.0	1	232	-55	6	-10	3	35.7	35.7
One North (朗壹廣場) - Cooling Tower	C10a	821111	834620	92.7	0.0	0	269	-57	0	0	3	39.1	0.0
	C10b	821108	834616	92.7	92.7	0	266	-56	0	0	3	39.2	39.2
	C10c	821060	834608	92.7	92.7	0	265	-56	0	0	3	39.2	39.2
	C10d	821065	834604	92.7	92.7	0	260	-56	0	0	3	39.4	39.4
	C10e	821070	834601	86.6	0.0	0	256	-56	0	0	3	33.4	0.0
	C10f	821079	834590	92.7	92.7	0	243	-56	0	0	3	40.0	40.0
	C10g	821076	834585	92.7	92.7	0	239	-56	0	0	3	40.1	40.1
One North (朗壹廣場) - Chiller	C10h	821113	834626	90.0	0.0	0	275	-57	6	0	3	42.2	0.0
	C10i	821072	834581	90.0	0.0	0	235	-55	6	0	3	43.6	0.0
											Predicted SPL, dB(A)	60	49

Note: (1) Horizontal distance has been applied for existing industrial buildings for a conservative approach.

Proposed Residential Development at Lai Sun Yuen Long Centre at No. 27 Wang Yip Steet East, Yuen Long
Detailed Calculation of Fixed Source Noise Impact Assessment
With Noise Barrier on top of clubhouse

NSR	x	y
F1-23	821111.4	834339.4

0 - Non screen
1 - Screen

Source	Source ID	x	y	Day and Evening Time SWL, dB(A)	Night Time SWL, dB(A)	Screening	Shortest Horizontal Distance, m	Distance Attenuation, dB(A)	Tonality Correction, dB(A)	Screening Correction, dB(A)	Façade Correction, dB(A)	Day and Evening Time SPL, Leq (30min) dB(A)	Night Time SPL, Leq (30min) dB(A)
On Lok Road Substation	S1a	821039	834312	88.1	84.6	0	77	-46	6	0	3	51.4	47.9
On Lok Road Substation	S1b	821046	834308	88.1	84.6	1	73	-45	6	-10	3	41.8	38.4
On Lok Road Substation	S1c	821053	834302	88.1	84.6	1	69	-45	6	-10	3	42.3	38.8
On Lok Road Substation	S1d	821061	834297	88.1	84.6	1	66	-44	6	-10	3	42.7	39.2
On Lok Road Substation	S1e	821067	834292	88.1	84.6	1	65	-44	6	-10	3	42.9	39.4
On Lok Road Substation	S1f	821073	834288	88.1	84.6	1	64	-44	6	-10	3	42.9	39.5
Sum Kee Metal Company Limited	S2	821033	834339	93.1	0.0	0	79	-46	0	0	3	50.2	0.0
健記汽車服冷氣電器	S3	821037	834352	91.0	0.0	1	75	-46	0	-10	3	38.5	0.0
裕記膠輪電池	S4	821025	834366	97.0	0.0	1	90	-47	0	-10	3	42.9	0.0
珠江車房	S5	821026	834385	97.8	0.0	1	97	-48	0	-10	3	43.1	0.0
元朗膠輪電池有限公司	S6	821063	834379	100.8	0.0	1	62	-44	0	-10	3	49.9	0.0
新界車房	S7	821080	834404	91.0	0.0	1	72	-45	0	-10	3	38.8	0.0
Keeper 日本專業汽車美容連鎖	S8	821084	834416	87.9	0.0	1	82	-46	0	-10	3	34.7	0.0
長城汽車維修公司	S9	821076	834425	91.0	0.0	1	93	-47	0	-10	3	36.6	0.0
合興汽車電器工程	S11	821125	834467	97.0	0.0	1	128	-50	0	-10	3	39.8	0.0
Good Year Autocare 輪胎電池服務中心	S12	821141	834490	97.0	0.0	1	153	-52	0	-10	3	38.3	0.0
新興汽車服務中心	S13	821184	834554	97.0	0.0	1	227	-55	0	-10	3	34.9	0.0
偉基汽車有限公司	S14	821198	834570	99.4	0.0	1	246	-56	0	-10	3	36.6	0.0
Transport Department Designated Car Testing Centre (運輸署指定車輛測試中心)	S15	821270	834548	95.1	0.0	1	262	-56	0	-10	3	31.7	0.0
進步膠輪電池有限公司	S16	821141	834490	96.1	0.0	1	154	-52	0	-10	3	37.4	0.0
高加達精密機械工程有限公司	S17	821074	834396	88.0	0.0	1	68	-45	0	-10	3	36.4	0.0
力高汽車維修	S18	821066	834385	88.0	0.0	1	64	-44	0	-10	3	36.8	0.0
Golden Town Industrial Building (錦城工業大廈) - Cooling Tower	C6	821180	834559	77.6	77.6	1	230	-55	0	-10	3	15.4	15.4
	C7	821181	834561	77.6	77.6	1	232	-55	0	-10	3	15.3	15.3
Flourish Food Manufactory Centre (榮華中心工業大廈) - Cooling Tower	C8a	821155	834171	80.1	80.1	1	174	-53	0	-10	3	20.3	20.3
	C8b	821154	834168	80.1	80.1	1	177	-53	0	-10	3	20.1	20.1
	C8c	821152	834166	80.1	80.1	1	178	-53	0	-10	3	20.1	20.1
	C8d	821149	834164	80.1	80.1	1	179	-53	0	-10	3	20.0	20.0
	C8e	821147	834167	80.1	80.1	1	176	-53	0	-10	3	20.2	20.2
	C8f	821145	834170	80.1	80.1	1	173	-53	0	-10	3	20.3	20.3
	C8g	821149	834170	79.1	79.1	1	173	-53	0	-10	3	19.3	19.3
The Rainbow (虹方) - Cooling Tower	C9a	820894	834369	92.0	92.0	0	220	-55	6	0	3	46.2	46.2
	C9b	820889	834362	92.0	92.0	0	224	-55	6	0	3	46.0	46.0
One North (朗壹廣場) - Cooling Tower	C10a	821111	834620	92.7	0.0	1	281	-57	0	-10	3	28.7	0.0
	C10b	821108	834616	92.7	92.7	1	277	-57	0	-10	3	28.9	28.9
	C10c	821060	834608	92.7	92.7	1	274	-57	0	-10	3	29.0	29.0
	C10d	821065	834604	92.7	92.7	1	269	-57	0	-10	3	29.1	29.1
	C10e	821070	834601	86.6	0.0	1	265	-56	0	-10	3	23.1	0.0
	C10f	821079	834590	92.7	92.7	1	253	-56	0	-10	3	29.6	29.6
	C10g	821076	834585	92.7	92.7	1	249	-56	0	-10	3	29.8	29.8
One North (朗壹廣場) - Chiller	C10h	821113	834626	90.0	0.0	1	286	-57	6	-10	3	31.9	0.0
	C10i	821072	834581	90.0	0.0	1	244	-56	6	-10	3	33.2	0.0
											Predicted SPL, dB(A)	58	53

Note: (1) Horizontal distance has been applied for existing industrial buildings for a conservative approach.

Proposed Residential Development at Lai Sun Yuen Long Centre at No. 27 Wang Yip Steet East, Yuen Long
Detailed Calculation of Fixed Source Noise Impact Assessment
With Noise Barrier on top of clubhouse

NSR	x	y
F1-25	821105.7	834342.9

0 - Non screen
1 - Screen

Source	Source ID	x	y	Day and Evening Time SWL, dB(A)	Night Time SWL, dB(A)	Screening	Shortest Horizontal Distance, m	Distance Attenuation, dB(A)	Tonality Correction, dB(A)	Screening Correction, dB(A)	Façade Correction, dB(A)	Day and Evening Time SPL, Leq (30min) dB(A)	Night Time SPL, Leq (30min) dB(A)
On Lok Road Substation	S1a	821039	834312	88.1	84.6	0	73	-45	6	0	3	51.8	48.3
On Lok Road Substation	S1b	821046	834308	88.1	84.6	1	70	-45	6	-10	3	42.2	38.7
On Lok Road Substation	S1c	821053	834302	88.1	84.6	1	66	-44	6	-10	3	42.6	39.1
On Lok Road Substation	S1d	821061	834297	88.1	84.6	1	65	-44	6	-10	3	42.9	39.4
On Lok Road Substation	S1e	821067	834292	88.1	84.6	1	64	-44	6	-10	3	43.0	39.5
On Lok Road Substation	S1f	821073	834288	88.1	84.6	1	64	-44	6	-10	3	43.0	39.5
Sum Kee Metal Company Limited	S2	821033	834339	93.1	0.0	0	73	-45	0	0	3	50.8	0.0
健記汽車服冷氣電器	S3	821037	834352	91.0	0.0	1	69	-45	0	-10	3	39.2	0.0
裕記膠輪電池	S4	821025	834366	97.0	0.0	1	84	-46	0	-10	3	43.5	0.0
珠江車房	S5	821026	834385	97.8	0.0	1	90	-47	0	-10	3	43.7	0.0
元朗膠輪電池有限公司	S6	821063	834379	100.8	0.0	1	55	-43	0	-10	3	50.9	0.0
新界車房	S7	821080	834404	91.0	0.0	1	67	-44	0	-10	3	39.5	0.0
Keeper 日本專業汽車美容連鎖	S8	821084	834416	87.9	0.0	1	76	-46	0	-10	3	35.2	0.0
長城汽車維修公司	S9	821076	834425	91.0	0.0	1	88	-47	0	-10	3	37.1	0.0
合興汽車電器工程	S11	821125	834467	97.0	0.0	1	125	-50	0	-10	3	40.0	0.0
Good Year Autocare 輪胎電池服務中心	S12	821141	834490	97.0	0.0	1	151	-52	0	-10	3	38.4	0.0
新興汽車服務中心	S13	821184	834554	97.0	0.0	1	225	-55	0	-10	3	34.9	0.0
偉基汽車有限公司	S14	821198	834570	99.4	0.0	1	245	-56	0	-10	3	36.6	0.0
Transport Department Designated Car Testing Centre (運輸署指定車輛測試中心)	S15	821270	834548	95.1	0.0	1	263	-56	0	-10	3	31.7	0.0
進步膠輪電池有限公司	S16	821141	834490	96.1	0.0	1	151	-52	0	-10	3	37.5	0.0
高加達精密機械工程有限公司	S17	821074	834396	88.0	0.0	1	62	-44	0	-10	3	37.2	0.0
力高汽車維修	S18	821066	834385	88.0	0.0	1	58	-43	0	-10	3	37.8	0.0
Golden Town Industrial Building (錦城工業大廈) - Cooling Tower	C6	821180	834559	77.6	77.6	1	228	-55	0	-10	3	15.4	15.4
	C7	821181	834561	77.6	77.6	1	231	-55	0	-10	3	15.3	15.3
Flourish Food Manufactory Centre (榮華中心工業大廈) - Cooling Tower	C8a	821155	834171	80.1	80.1	1	179	-53	0	-10	3	20.0	20.0
	C8b	821154	834168	80.1	80.1	1	182	-53	0	-10	3	19.9	19.9
	C8c	821152	834166	80.1	80.1	1	182	-53	0	-10	3	19.9	19.9
	C8d	821149	834164	80.1	80.1	1	184	-53	0	-10	3	19.8	19.8
	C8e	821147	834167	80.1	80.1	1	181	-53	0	-10	3	19.9	19.9
	C8f	821145	834170	80.1	80.1	1	178	-53	0	-10	3	20.1	20.1
	C8g	821149	834170	79.1	79.1	1	178	-53	0	-10	3	19.1	19.1
The Rainbow (虹方) - Cooling Tower	C9a	820894	834369	92.0	92.0	1	214	-55	6	-10	3	36.4	36.4
	C9b	820889	834362	92.0	92.0	1	218	-55	6	-10	3	36.2	36.2
One North (朗壹廣場) - Cooling Tower	C10a	821111	834620	92.7	0.0	1	277	-57	0	-10	3	28.9	0.0
	C10b	821108	834616	92.7	92.7	1	273	-57	0	-10	3	29.0	29.0
	C10c	821060	834608	92.7	92.7	1	269	-57	0	-10	3	29.1	29.1
	C10d	821065	834604	92.7	92.7	1	265	-56	0	-10	3	29.2	29.2
	C10e	821070	834601	86.6	0.0	1	261	-56	0	-10	3	23.3	0.0
	C10f	821079	834590	92.7	92.7	1	249	-56	0	-10	3	29.8	29.8
	C10g	821076	834585	92.7	92.7	1	244	-56	0	-10	3	29.9	29.9
One North (朗壹廣場) - Chiller	C10h	821113	834626	90.0	0.0	1	283	-57	6	-10	3	32.0	0.0
	C10i	821072	834581	90.0	0.0	1	240	-56	6	-10	3	33.4	0.0
											Predicted SPL, dB(A)	58	51

Note: (1) Horizontal distance has been applied for existing industrial buildings for a conservative approach.

Proposed Residential Development at Lai Sun Yuen Long Centre at No. 27 Wang Yip Steet East, Yuen Long
Detailed Calculation of Fixed Source Noise Impact Assessment
With Noise Barrier on top of clubhouse

NSR	x	y
F1-27	821102.0	834345.6

0 - Non screen
1 - Screen

Source	Source ID	x	y	Day and Evening Time SWL, dB(A)	Night Time SWL, dB(A)	Screening	Shortest Horizontal Distance, m	Distance Attenuation, dB(A)	Tonality Correction, dB(A)	Screening Correction, dB(A)	Façade Correction, dB(A)	Day and Evening Time SPL, Leq (30min) dB(A)	Night Time SPL, Leq (30min) dB(A)
On Lok Road Substation	S1a	821039	834312	88.1	84.6	0	71	-45	6	0	3	52.1	48.6
On Lok Road Substation	S1b	821046	834308	88.1	84.6	0	68	-45	6	0	3	52.5	49.0
On Lok Road Substation	S1c	821053	834302	88.1	84.6	1	65	-44	6	-10	3	42.8	39.3
On Lok Road Substation	S1d	821061	834297	88.1	84.6	1	64	-44	6	-10	3	43.0	39.5
On Lok Road Substation	S1e	821067	834292	88.1	84.6	1	64	-44	6	-10	3	43.0	39.5
On Lok Road Substation	S1f	821073	834288	88.1	84.6	1	65	-44	6	-10	3	42.9	39.4
Sum Kee Metal Company Limited	S2	821033	834339	93.1	0.0	0	70	-45	0	0	3	51.2	0.0
健記汽車服冷氣電器	S3	821037	834352	91.0	0.0	1	65	-44	0	-10	3	39.7	0.0
裕記膠輪電池	S4	821025	834366	97.0	0.0	1	79	-46	0	-10	3	44.0	0.0
珠江車房	S5	821026	834385	97.8	0.0	1	86	-47	0	-10	3	44.2	0.0
元朗膠輪電池有限公司	S6	821063	834379	100.8	0.0	1	51	-42	0	-10	3	51.7	0.0
新界車房	S7	821080	834404	91.0	0.0	1	63	-44	0	-10	3	40.0	0.0
Keeper 日本專業汽車美容連鎖	S8	821084	834416	87.9	0.0	1	73	-45	0	-10	3	35.6	0.0
長城汽車維修公司	S9	821076	834425	91.0	0.0	1	84	-46	0	-10	3	37.5	0.0
合興汽車電器工程	S11	821125	834467	97.0	0.0	1	123	-50	0	-10	3	40.2	0.0
Good Year Autocare 輪胎電池服務中心	S12	821141	834490	97.0	0.0	1	149	-51	0	-10	3	38.5	0.0
新興汽車服務中心	S13	821184	834554	97.0	0.0	1	224	-55	0	-10	3	35.0	0.0
偉基汽車有限公司	S14	821198	834570	99.4	0.0	1	244	-56	0	-10	3	36.7	0.0
Transport Department Designated Car Testing Centre (運輸署指定車輛測試中心)	S15	821270	834548	95.1	0.0	1	263	-56	0	-10	3	31.7	0.0
進步膠輪電池有限公司	S16	821141	834490	96.1	0.0	1	150	-51	0	-10	3	37.6	0.0
高加達精密機械工程有限公司	S17	821074	834396	88.0	0.0	1	58	-43	0	-10	3	37.8	0.0
力高汽車維修	S18	821066	834385	88.0	0.0	1	53	-43	0	-10	3	38.5	0.0
Golden Town Industrial Building (錦城工業大廈) - Cooling Tower	C6	821180	834559	77.6	77.6	1	227	-55	0	-10	3	15.5	15.5
	C7	821181	834561	77.6	77.6	1	230	-55	0	-10	3	15.4	15.4
Flourish Food Manufactory Centre (榮華中心工業大廈) - Cooling Tower	C8a	821155	834171	80.1	80.1	1	182	-53	0	-10	3	19.9	19.9
	C8b	821154	834168	80.1	80.1	1	185	-53	0	-10	3	19.7	19.7
	C8c	821152	834166	80.1	80.1	1	186	-53	0	-10	3	19.7	19.7
	C8d	821149	834164	80.1	80.1	1	187	-53	0	-10	3	19.6	19.6
	C8e	821147	834167	80.1	80.1	1	184	-53	0	-10	3	19.8	19.8
	C8f	821145	834170	80.1	80.1	1	181	-53	0	-10	3	19.9	19.9
	C8g	821149	834170	79.1	79.1	1	181	-53	0	-10	3	18.9	18.9
The Rainbow (虹方) - Cooling Tower	C9a	820894	834369	92.0	92.0	1	210	-54	6	-10	3	36.6	36.6
	C9b	820889	834362	92.0	92.0	1	214	-55	6	-10	3	36.4	36.4
One North (朗壹廣場) - Cooling Tower	C10a	821111	834620	92.7	0.0	1	274	-57	0	-10	3	28.9	0.0
	C10b	821108	834616	92.7	92.7	1	271	-57	0	-10	3	29.1	29.1
	C10c	821060	834608	92.7	92.7	1	266	-56	0	-10	3	29.2	29.2
	C10d	821065	834604	92.7	92.7	1	261	-56	0	-10	3	29.4	29.4
	C10e	821070	834601	86.6	0.0	1	257	-56	0	-10	3	23.4	0.0
	C10f	821079	834590	92.7	92.7	1	246	-56	0	-10	3	29.9	29.9
	C10g	821076	834585	92.7	92.7	1	241	-56	0	-10	3	30.1	30.1
One North (朗壹廣場) - Chiller	C10h	821113	834626	90.0	0.0	1	280	-57	6	-10	3	32.1	0.0
	C10i	821072	834581	90.0	0.0	1	237	-55	6	-10	3	33.5	0.0
											Predicted SPL, dB(A)	59	53

Note: (1) Horizontal distance has been applied for existing industrial buildings for a conservative approach.

Proposed Residential Development at Lai Sun Yuen Long Centre at No. 27 Wang Yip Steet East, Yuen Long
Detailed Calculation of Fixed Source Noise Impact Assessment
With Noise Barrier on top of clubhouse

NSR	x	y
F1-28	821100.1	834347.0

0 - Non screen
1 - Screen

Source	Source ID	x	y	Day and Evening Time SWL, dB(A)	Night Time SWL, dB(A)	Screening	Shortest Horizontal Distance, m	Distance Attenuation, dB(A)	Tonality Correction, dB(A)	Screening Correction, dB(A)	Façade Correction, dB(A)	Day and Evening Time SPL, Leq (30min) dB(A)	Night Time SPL, Leq (30min) dB(A)
On Lok Road Substation	S1a	821039	834312	88.1	84.6	0	70	-45	6	0	3	52.2	48.7
On Lok Road Substation	S1b	821046	834308	88.1	84.6	0	67	-45	6	0	3	52.6	49.1
On Lok Road Substation	S1c	821053	834302	88.1	84.6	1	65	-44	6	-10	3	42.9	39.4
On Lok Road Substation	S1d	821061	834297	88.1	84.6	1	64	-44	6	-10	3	43.0	39.5
On Lok Road Substation	S1e	821067	834292	88.1	84.6	1	64	-44	6	-10	3	43.0	39.5
On Lok Road Substation	S1f	821073	834288	88.1	84.6	1	65	-44	6	-10	3	42.8	39.3
Sum Kee Metal Company Limited	S2	821033	834339	93.1	0.0	0	68	-45	0	0	3	51.4	0.0
健記汽車服冷氣電器	S3	821037	834352	91.0	0.0	1	63	-44	0	-10	3	40.0	0.0
裕記膠輪電池	S4	821025	834366	97.0	0.0	1	77	-46	0	-10	3	44.3	0.0
珠江車房	S5	821026	834385	97.8	0.0	1	83	-46	0	-10	3	44.4	0.0
元朗膠輪電池有限公司	S6	821063	834379	100.8	0.0	1	49	-42	0	-10	3	52.1	0.0
新界車房	S7	821080	834404	91.0	0.0	1	61	-44	0	-10	3	40.3	0.0
Keeper 日本專業汽車美容連鎖	S8	821084	834416	87.9	0.0	1	71	-45	0	-10	3	35.9	0.0
長城汽車維修公司	S9	821076	834425	91.0	0.0	1	82	-46	0	-10	3	37.7	0.0
合興汽車電器工程	S11	821125	834467	97.0	0.0	1	122	-50	0	-10	3	40.2	0.0
Good Year Autocare 輪胎電池服務中心	S12	821141	834490	97.0	0.0	1	148	-51	0	-10	3	38.6	0.0
新興汽車服務中心	S13	821184	834554	97.0	0.0	1	224	-55	0	-10	3	35.0	0.0
偉基汽車有限公司	S14	821198	834570	99.4	0.0	1	243	-56	0	-10	3	36.7	0.0
Transport Department Designated Car Testing Centre (運輸署指定車輛測試中心)	S15	821270	834548	95.1	0.0	1	263	-56	0	-10	3	31.7	0.0
進步膠輪電池有限公司	S16	821141	834490	96.1	0.0	1	149	-51	0	-10	3	37.7	0.0
高加達精密機械工程有限公司	S17	821074	834396	88.0	0.0	1	56	-43	0	-10	3	38.1	0.0
力高汽車維修	S18	821066	834385	88.0	0.0	1	51	-42	0	-10	3	38.8	0.0
Golden Town Industrial Building (錦城工業大廈) - Cooling Tower	C6	821180	834559	77.6	77.6	1	226	-55	0	-10	3	15.5	15.5
	C7	821181	834561	77.6	77.6	1	229	-55	0	-10	3	15.4	15.4
Flourish Food Manufactory Centre (榮華中心工業大廈) - Cooling Tower	C8a	821155	834171	80.1	80.1	1	184	-53	0	-10	3	19.8	19.8
	C8b	821154	834168	80.1	80.1	1	187	-53	0	-10	3	19.6	19.6
	C8c	821152	834166	80.1	80.1	1	188	-53	0	-10	3	19.6	19.6
	C8d	821149	834164	80.1	80.1	1	189	-54	0	-10	3	19.5	19.5
	C8e	821147	834167	80.1	80.1	1	186	-53	0	-10	3	19.7	19.7
	C8f	821145	834170	80.1	80.1	1	183	-53	0	-10	3	19.8	19.8
	C8g	821149	834170	79.1	79.1	1	183	-53	0	-10	3	18.8	18.8
The Rainbow (虹方) - Cooling Tower	C9a	820894	834369	92.0	92.0	1	208	-54	6	-10	3	36.7	36.7
	C9b	820889	834362	92.0	92.0	1	212	-55	6	-10	3	36.5	36.5
One North (朗壹廣場) - Cooling Tower	C10a	821111	834620	92.7	0.0	1	273	-57	0	-10	3	29.0	0.0
	C10b	821108	834616	92.7	92.7	1	269	-57	0	-10	3	29.1	29.1
	C10c	821060	834608	92.7	92.7	1	264	-56	0	-10	3	29.3	29.3
	C10d	821065	834604	92.7	92.7	1	260	-56	0	-10	3	29.4	29.4
	C10e	821070	834601	86.6	0.0	1	256	-56	0	-10	3	23.4	0.0
	C10f	821079	834590	92.7	92.7	1	244	-56	0	-10	3	30.0	30.0
	C10g	821076	834585	92.7	92.7	1	240	-56	0	-10	3	30.1	30.1
One North (朗壹廣場) - Chiller	C10h	821113	834626	90.0	0.0	1	279	-57	6	-10	3	32.1	0.0
	C10i	821072	834581	90.0	0.0	1	235	-55	6	-10	3	33.6	0.0
											Predicted SPL, dB(A)	59	53

Note: (1) Horizontal distance has been applied for existing industrial buildings for a conservative approach.

Proposed Residential Development at Lai Sun Yuen Long Centre at No. 27 Wang Yip Steet East, Yuen Long
Detailed Calculation of Fixed Source Noise Impact Assessment
With Noise Barrier on top of clubhouse

NSR	x	y
F1-30	821096.4	834349.7

0 - Non screen
1 - Screen

Source	Source ID	x	y	Day and Evening Time SWL, dB(A)	Night Time SWL, dB(A)	Screening	Shortest Horizontal Distance, m	Distance Attenuation, dB(A)	Tonality Correction, dB(A)	Screening Correction, dB(A)	Façade Correction, dB(A)	Day and Evening Time SPL, Leq (30min) dB(A)	Night Time SPL, Leq (30min) dB(A)
On Lok Road Substation	S1a	821039	834312	88.1	84.6	0	68	-45	6	0	3	52.4	48.9
On Lok Road Substation	S1b	821046	834308	88.1	84.6	0	66	-44	6	0	3	52.7	49.2
On Lok Road Substation	S1c	821053	834302	88.1	84.6	1	64	-44	6	-10	3	43.0	39.5
On Lok Road Substation	S1d	821061	834297	88.1	84.6	1	64	-44	6	-10	3	43.0	39.5
On Lok Road Substation	S1e	821067	834292	88.1	84.6	1	65	-44	6	-10	3	42.9	39.4
On Lok Road Substation	S1f	821073	834288	88.1	84.6	1	66	-44	6	-10	3	42.7	39.2
Sum Kee Metal Company Limited	S2	821033	834339	93.1	0.0	0	65	-44	0	0	3	51.9	0.0
健記汽車服冷氣電器	S3	821037	834352	91.0	0.0	1	59	-43	0	-10	3	40.5	0.0
裕記膠輪電池	S4	821025	834366	97.0	0.0	1	73	-45	0	-10	3	44.7	0.0
珠江車房	S5	821026	834385	97.8	0.0	1	79	-46	0	-10	3	44.9	0.0
元朗膠輪電池有限公司	S6	821063	834379	100.8	0.0	1	44	-41	0	-10	3	52.9	0.0
新界車房	S7	821080	834404	91.0	0.0	1	57	-43	0	-10	3	40.8	0.0
Keeper 日本專業汽車美容連鎖	S8	821084	834416	87.9	0.0	1	68	-45	0	-10	3	36.3	0.0
長城汽車維修公司	S9	821076	834425	91.0	0.0	1	78	-46	0	-10	3	38.1	0.0
合興汽車電器工程	S11	821125	834467	97.0	0.0	1	121	-50	0	-10	3	40.4	0.0
Good Year Autocare 輪胎電池服務中心	S12	821141	834490	97.0	0.0	1	147	-51	0	-10	3	38.7	0.0
新興汽車服務中心	S13	821184	834554	97.0	0.0	1	223	-55	0	-10	3	35.1	0.0
偉基汽車有限公司	S14	821198	834570	99.4	0.0	1	242	-56	0	-10	3	36.7	0.0
Transport Department Designated Car Testing Centre (運輸署指定車輛測試中心)	S15	821270	834548	95.1	0.0	1	264	-56	0	-10	3	31.7	0.0
進步膠輪電池有限公司	S16	821141	834490	96.1	0.0	1	147	-51	0	-10	3	37.7	0.0
高加達精密機械工程有限公司	S17	821074	834396	88.0	0.0	1	51	-42	0	-10	3	38.8	0.0
力高汽車維修	S18	821066	834385	88.0	0.0	1	47	-41	0	-10	3	39.6	0.0
Golden Town Industrial Building (錦城工業大廈) - Cooling Tower	C6	821180	834559	77.6	77.6	1	225	-55	0	-10	3	15.5	15.5
	C7	821181	834561	77.6	77.6	1	228	-55	0	-10	3	15.4	15.4
Flourish Food Manufactory Centre (榮華中心工業大廈) - Cooling Tower	C8a	821155	834171	80.1	80.1	1	188	-53	0	-10	3	19.6	19.6
	C8b	821154	834168	80.1	80.1	1	191	-54	0	-10	3	19.5	19.5
	C8c	821152	834166	80.1	80.1	1	191	-54	0	-10	3	19.4	19.4
	C8d	821149	834164	80.1	80.1	1	193	-54	0	-10	3	19.4	19.4
	C8e	821147	834167	80.1	80.1	1	190	-54	0	-10	3	19.5	19.5
	C8f	821145	834170	80.1	80.1	1	187	-53	0	-10	3	19.7	19.7
	C8g	821149	834170	79.1	79.1	1	187	-53	0	-10	3	18.7	18.7
The Rainbow (虹方) - Cooling Tower	C9a	820894	834369	92.0	92.0	1	204	-54	6	-10	3	36.8	36.8
	C9b	820889	834362	92.0	92.0	1	208	-54	6	-10	3	36.6	36.6
One North (朗壹廣場) - Cooling Tower	C10a	821111	834620	92.7	0.0	1	271	-57	0	-10	3	29.1	0.0
	C10b	821108	834616	92.7	92.7	1	267	-57	0	-10	3	29.2	29.2
	C10c	821060	834608	92.7	92.7	1	261	-56	0	-10	3	29.4	29.4
	C10d	821065	834604	92.7	92.7	1	257	-56	0	-10	3	29.5	29.5
	C10e	821070	834601	86.6	0.0	1	253	-56	0	-10	3	23.5	0.0
	C10f	821079	834590	92.7	92.7	1	241	-56	0	-10	3	30.1	30.1
	C10g	821076	834585	92.7	92.7	1	237	-55	0	-10	3	30.2	30.2
One North (朗壹廣場) - Chiller	C10h	821113	834626	90.0	0.0	1	276	-57	6	-10	3	32.2	0.0
	C10i	821072	834581	90.0	0.0	1	232	-55	6	-10	3	33.7	0.0
											Predicted SPL, dB(A)	60	53

Note: (1) Horizontal distance has been applied for existing industrial buildings for a conservative approach.

Proposed Residential Development at Lai Sun Yuen Long Centre at No. 27 Wang Yip Steet East, Yuen Long
Detailed Calculation of Fixed Source Noise Impact Assessment
With Noise Barrier on top of clubhouse

NSR	x	y
F1-31	821094.6	834351.0

0 - Non screen
1 - Screen

Source	Source ID	x	y	Day and Evening Time SWL, dB(A)	Night Time SWL, dB(A)	Screening	Shortest Horizontal Distance, m	Distance Attenuation, dB(A)	Tonality Correction, dB(A)	Screening Correction, dB(A)	Façade Correction, dB(A)	Day and Evening Time SPL, Leq (30min) dB(A)	Night Time SPL, Leq (30min) dB(A)
On Lok Road Substation	S1a	821039	834312	88.1	84.6	0	68	-45	6	0	3	52.5	49.0
On Lok Road Substation	S1b	821046	834308	88.1	84.6	0	65	-44	6	0	3	52.8	49.3
On Lok Road Substation	S1c	821053	834302	88.1	84.6	1	64	-44	6	-10	3	43.0	39.5
On Lok Road Substation	S1d	821061	834297	88.1	84.6	1	64	-44	6	-10	3	43.0	39.5
On Lok Road Substation	S1e	821067	834292	88.1	84.6	1	65	-44	6	-10	3	42.9	39.4
On Lok Road Substation	S1f	821073	834288	88.1	84.6	1	67	-44	6	-10	3	42.6	39.1
Sum Kee Metal Company Limited	S2	821033	834339	93.1	0.0	0	63	-44	0	0	3	52.1	0.0
健記汽車服冷氣電器	S3	821037	834352	91.0	0.0	1	57	-43	0	-10	3	40.8	0.0
裕記膠輪電池	S4	821025	834366	97.0	0.0	1	71	-45	0	-10	3	45.0	0.0
珠江車房	S5	821026	834385	97.8	0.0	1	77	-46	0	-10	3	45.1	0.0
元朗膠輪電池有限公司	S6	821063	834379	100.8	0.0	1	42	-40	0	-10	3	53.4	0.0
新界車房	S7	821080	834404	91.0	0.0	1	56	-43	0	-10	3	41.1	0.0
Keeper 日本專業汽車美容連鎖	S8	821084	834416	87.9	0.0	1	66	-44	0	-10	3	36.5	0.0
長城汽車維修公司	S9	821076	834425	91.0	0.0	1	77	-46	0	-10	3	38.3	0.0
合興汽車電器工程	S11	821125	834467	97.0	0.0	1	120	-50	0	-10	3	40.4	0.0
Good Year Autocare 輪胎電池服務中心	S12	821141	834490	97.0	0.0	1	146	-51	0	-10	3	38.7	0.0
新興汽車服務中心	S13	821184	834554	97.0	0.0	1	222	-55	0	-10	3	35.1	0.0
偉基汽車有限公司	S14	821198	834570	99.4	0.0	1	242	-56	0	-10	3	36.7	0.0
Transport Department Designated Car Testing Centre (運輸署指定車輛測試中心)	S15	821270	834548	95.1	0.0	1	264	-56	0	-10	3	31.7	0.0
進步膠輪電池有限公司	S16	821141	834490	96.1	0.0	1	147	-51	0	-10	3	37.8	0.0
高加達精密機械工程有限公司	S17	821074	834396	88.0	0.0	1	50	-42	0	-10	3	39.1	0.0
力高汽車維修	S18	821066	834385	88.0	0.0	1	44	-41	0	-10	3	40.0	0.0
Golden Town Industrial Building (錦城工業大廈) - Cooling Tower	C6	821180	834559	77.6	77.6	1	224	-55	0	-10	3	15.6	15.6
	C7	821181	834561	77.6	77.6	1	227	-55	0	-10	3	15.5	15.5
Flourish Food Manufactory Centre (榮華中心工業大廈) - Cooling Tower	C8a	821155	834171	80.1	80.1	1	190	-54	0	-10	3	19.5	19.5
	C8b	821154	834168	80.1	80.1	1	193	-54	0	-10	3	19.4	19.4
	C8c	821152	834166	80.1	80.1	1	193	-54	0	-10	3	19.4	19.4
	C8d	821149	834164	80.1	80.1	1	194	-54	0	-10	3	19.3	19.3
	C8e	821147	834167	80.1	80.1	1	191	-54	0	-10	3	19.4	19.4
	C8f	821145	834170	80.1	80.1	1	188	-53	0	-10	3	19.6	19.6
	C8g	821149	834170	79.1	79.1	1	189	-54	0	-10	3	18.6	18.6
The Rainbow (虹方) - Cooling Tower	C9a	820894	834369	92.0	92.0	1	202	-54	6	-10	3	36.9	36.9
	C9b	820889	834362	92.0	92.0	1	206	-54	6	-10	3	36.7	36.7
One North (朗壹廣場) - Cooling Tower	C10a	821111	834620	92.7	0.0	1	269	-57	0	-10	3	29.1	0.0
	C10b	821108	834616	92.7	92.7	1	266	-56	0	-10	3	29.2	29.2
	C10c	821060	834608	92.7	92.7	1	259	-56	0	-10	3	29.4	29.4
	C10d	821065	834604	92.7	92.7	1	255	-56	0	-10	3	29.6	29.6
	C10e	821070	834601	86.6	0.0	1	251	-56	0	-10	3	23.6	0.0
	C10f	821079	834590	92.7	92.7	1	240	-56	0	-10	3	30.1	30.1
	C10g	821076	834585	92.7	92.7	1	235	-55	0	-10	3	30.3	30.3
One North (朗壹廣場) - Chiller	C10h	821113	834626	90.0	0.0	1	275	-57	6	-10	3	32.2	0.0
	C10i	821072	834581	90.0	0.0	1	231	-55	6	-10	3	33.7	0.0
											Predicted SPL, dB(A)	60	53

Note: (1) Horizontal distance has been applied for existing industrial buildings for a conservative approach.

Proposed Residential Development at Lai Sun Yuen Long Centre at No. 27 Wang Yip Steet East, Yuen Long
Detailed Calculation of Fixed Source Noise Impact Assessment
With Noise Barrier on top of clubhouse

NSR	x	y
F1-33	821090.9	834353.6

0 - Non screen
1 - Screen

Source	Source ID	x	y	Day and Evening Time SWL, dB(A)	Night Time SWL, dB(A)	Screening	Shortest Horizontal Distance, m	Distance Attenuation, dB(A)	Tonality Correction, dB(A)	Screening Correction, dB(A)	Façade Correction, dB(A)	Day and Evening Time SPL, Leq (30min) dB(A)	Night Time SPL, Leq (30min) dB(A)
On Lok Road Substation	S1a	821039	834312	88.1	84.6	0	66	-44	6	0	3	52.7	49.2
On Lok Road Substation	S1b	821046	834308	88.1	84.6	0	64	-44	6	0	3	52.9	49.4
On Lok Road Substation	S1c	821053	834302	88.1	84.6	1	64	-44	6	-10	3	43.0	39.5
On Lok Road Substation	S1d	821061	834297	88.1	84.6	1	64	-44	6	-10	3	42.9	39.4
On Lok Road Substation	S1e	821067	834292	88.1	84.6	1	66	-44	6	-10	3	42.7	39.2
On Lok Road Substation	S1f	821073	834288	88.1	84.6	1	68	-45	6	-10	3	42.4	38.9
Sum Kee Metal Company Limited	S2	821033	834339	93.1	0.0	0	60	-44	0	0	3	52.5	0.0
健記汽車服冷氣電器	S3	821037	834352	91.0	0.0	1	54	-43	0	-10	3	41.4	0.0
裕記膠輪電池	S4	821025	834366	97.0	0.0	1	67	-44	0	-10	3	45.5	0.0
珠江車房	S5	821026	834385	97.8	0.0	1	72	-45	0	-10	3	45.6	0.0
元朗膠輪電池有限公司	S6	821063	834379	100.8	0.0	1	37	-39	0	-10	3	54.4	0.0
新界車房	S7	821080	834404	91.0	0.0	1	52	-42	0	-10	3	41.7	0.0
Keeper 日本專業汽車美容連鎖	S8	821084	834416	87.9	0.0	1	63	-44	0	-10	3	36.9	0.0
長城汽車維修公司	S9	821076	834425	91.0	0.0	1	73	-45	0	-10	3	38.7	0.0
合興汽車電器工程	S11	821125	834467	97.0	0.0	1	118	-49	0	-10	3	40.5	0.0
Good Year Autocare 輪胎電池服務中心	S12	821141	834490	97.0	0.0	1	145	-51	0	-10	3	38.8	0.0
新興汽車服務中心	S13	821184	834554	97.0	0.0	1	221	-55	0	-10	3	35.1	0.0
偉基汽車有限公司	S14	821198	834570	99.4	0.0	1	241	-56	0	-10	3	36.8	0.0
Transport Department Designated Car Testing Centre (運輸署指定車輛測試中心)	S15	821270	834548	95.1	0.0	1	264	-56	0	-10	3	31.7	0.0
進步膠輪電池有限公司	S16	821141	834490	96.1	0.0	1	145	-51	0	-10	3	37.9	0.0
高加達精密機械工程有限公司	S17	821074	834396	88.0	0.0	1	46	-41	0	-10	3	39.8	0.0
力高汽車維修	S18	821066	834385	88.0	0.0	1	40	-40	0	-10	3	41.0	0.0
Golden Town Industrial Building (錦城工業大廈) - Cooling Tower	C6	821180	834559	77.6	77.6	1	223	-55	0	-10	3	15.6	15.6
	C7	821181	834561	77.6	77.6	1	226	-55	0	-10	3	15.5	15.5
Flourish Food Manufactory Centre (榮華中心工業大廈) - Cooling Tower	C8a	821155	834171	80.1	80.1	1	193	-54	0	-10	3	19.4	19.4
	C8b	821154	834168	80.1	80.1	1	196	-54	0	-10	3	19.2	19.2
	C8c	821152	834166	80.1	80.1	1	197	-54	0	-10	3	19.2	19.2
	C8d	821149	834164	80.1	80.1	1	198	-54	0	-10	3	19.1	19.1
	C8e	821147	834167	80.1	80.1	1	195	-54	0	-10	3	19.3	19.3
	C8f	821145	834170	80.1	80.1	1	192	-54	0	-10	3	19.4	19.4
	C8g	821149	834170	79.1	79.1	1	192	-54	0	-10	3	18.4	18.4
The Rainbow (虹方) - Cooling Tower	C9a	820894	834369	92.0	92.0	1	198	-54	6	-10	3	37.1	37.1
	C9b	820889	834362	92.0	92.0	1	202	-54	6	-10	3	36.9	36.9
One North (朗壹廣場) - Cooling Tower	C10a	821111	834620	92.7	0.0	1	267	-57	0	-10	3	29.2	0.0
	C10b	821108	834616	92.7	92.7	1	263	-56	0	-10	3	29.3	29.3
	C10c	821060	834608	92.7	92.7	1	256	-56	0	-10	3	29.5	29.5
	C10d	821065	834604	92.7	92.7	1	252	-56	0	-10	3	29.7	29.7
	C10e	821070	834601	86.6	0.0	1	248	-56	0	-10	3	23.7	0.0
	C10f	821079	834590	92.7	92.7	1	237	-55	0	-10	3	30.2	30.2
	C10g	821076	834585	92.7	92.7	1	232	-55	0	-10	3	30.4	30.4
One North (朗壹廣場) - Chiller	C10h	821113	834626	90.0	0.0	1	273	-57	6	-10	3	32.3	0.0
	C10i	821072	834581	90.0	0.0	1	228	-55	6	-10	3	33.9	0.0
											Predicted SPL, dB(A)	60	53

Note: (1) Horizontal distance has been applied for existing industrial buildings for a conservative approach.

Proposed Residential Development at Lai Sun Yuen Long Centre at No. 27 Wang Yip Steet East, Yuen Long
Detailed Calculation of Fixed Source Noise Impact Assessment
With Noise Barrier on top of clubhouse

NSR	x	y
F1-39	821080.1	834355.3

0 - Non screen
1 - Screen

Source	Source ID	x	y	Day and Evening Time SWL, dB(A)	Night Time SWL, dB(A)	Screening	Shortest Horizontal Distance, m	Distance Attenuation, dB(A)	Tonality Correction, dB(A)	Screening Correction, dB(A)	Façade Correction, dB(A)	Day and Evening Time SPL, Leq (30min) dB(A)	Night Time SPL, Leq (30min) dB(A)
On Lok Road Substation	S1a	821039	834312	88.1	84.6	0	59	-43	6	0	3	53.6	50.1
On Lok Road Substation	S1b	821046	834308	88.1	84.6	0	59	-43	6	0	3	53.7	50.2
On Lok Road Substation	S1c	821053	834302	88.1	84.6	1	60	-43	6	-10	3	43.6	40.1
On Lok Road Substation	S1d	821061	834297	88.1	84.6	1	62	-44	6	-10	3	43.3	39.8
On Lok Road Substation	S1e	821067	834292	88.1	84.6	1	65	-44	6	-10	3	42.9	39.4
On Lok Road Substation	S1f	821073	834288	88.1	84.6	1	68	-45	6	-10	3	42.5	39.0
Sum Kee Metal Company Limited	S2	821033	834339	93.1	0.0	1	50	-42	0	-10	3	44.1	0.0
健記汽車服冷氣電器	S3	821037	834352	91.0	0.0	1	43	-41	0	-10	3	43.3	0.0
裕記膠輪電池	S4	821025	834366	97.0	0.0	1	56	-43	0	-10	3	47.1	0.0
珠江車房	S5	821026	834385	97.8	0.0	1	62	-44	0	-10	3	47.0	0.0
元朗膠輪電池有限公司	S6	821063	834379	100.8	0.0	1	29	-37	0	-10	3	56.6	0.0
新界車房	S7	821080	834404	91.0	0.0	1	49	-42	0	-10	3	42.2	0.0
Keeper 日本專業汽車美容連鎖	S8	821084	834416	87.9	0.0	1	61	-44	0	-10	3	37.2	0.0
長城汽車維修公司	S9	821076	834425	91.0	0.0	1	70	-45	0	-10	3	39.1	0.0
合興汽車電器工程	S11	821125	834467	97.0	0.0	1	120	-50	0	-10	3	40.4	0.0
Good Year Autocare 輪胎電池服務中心	S12	821141	834490	97.0	0.0	1	147	-51	0	-10	3	38.6	0.0
新興汽車服務中心	S13	821184	834554	97.0	0.0	1	224	-55	0	-10	3	35.0	0.0
偉基汽車有限公司	S14	821198	834570	99.4	0.0	1	244	-56	0	-10	3	36.6	0.0
Transport Department Designated Car Testing Centre (運輸署指定車輛測試中心)	S15	821270	834548	95.1	0.0	1	271	-57	0	-10	3	31.5	0.0
進步膠輪電池有限公司	S16	821141	834490	96.1	0.0	1	148	-51	0	-10	3	37.7	0.0
高加達精密機械工程有限公司	S17	821074	834396	88.0	0.0	1	41	-40	0	-10	3	40.7	0.0
力高汽車維修	S18	821066	834385	88.0	0.0	1	33	-38	0	-10	3	42.7	0.0
Golden Town Industrial Building (錦城工業大廈) - Cooling Tower	C6	821180	834559	77.6	77.6	1	226	-55	0	-10	3	15.5	15.5
	C7	821181	834561	77.6	77.6	1	229	-55	0	-10	3	15.4	15.4
Flourish Food Manufactory Centre (榮華中心工業大廈) - Cooling Tower	C8a	821155	834171	80.1	80.1	1	199	-54	0	-10	3	19.1	19.1
	C8b	821154	834168	80.1	80.1	1	202	-54	0	-10	3	19.0	19.0
	C8c	821152	834166	80.1	80.1	1	202	-54	0	-10	3	19.0	19.0
	C8d	821149	834164	80.1	80.1	1	203	-54	0	-10	3	18.9	18.9
	C8e	821147	834167	80.1	80.1	1	200	-54	0	-10	3	19.1	19.1
	C8f	821145	834170	80.1	80.1	1	197	-54	0	-10	3	19.2	19.2
	C8g	821149	834170	79.1	79.1	1	197	-54	0	-10	3	18.2	18.2
The Rainbow (虹方) - Cooling Tower	C9a	820894	834369	92.0	92.0	1	187	-53	6	-10	3	37.6	37.6
	C9b	820889	834362	92.0	92.0	1	192	-54	6	-10	3	37.4	37.4
One North (朗壹廣場) - Cooling Tower	C10a	821111	834620	92.7	0.0	1	266	-57	0	-10	3	29.2	0.0
	C10b	821108	834616	92.7	92.7	1	262	-56	0	-10	3	29.3	29.3
	C10c	821060	834608	92.7	92.7	1	254	-56	0	-10	3	29.6	29.6
	C10d	821065	834604	92.7	92.7	1	250	-56	0	-10	3	29.8	29.8
	C10e	821070	834601	86.6	0.0	1	246	-56	0	-10	3	23.8	0.0
	C10f	821079	834590	92.7	92.7	1	235	-55	0	-10	3	30.3	30.3
	C10g	821076	834585	92.7	92.7	1	230	-55	0	-10	3	30.5	30.5
One North (朗壹廣場) - Chiller	C10h	821113	834626	90.0	0.0	1	272	-57	6	-10	3	32.3	0.0
	C10i	821072	834581	90.0	0.0	1	225	-55	6	-10	3	33.9	0.0
											Predicted SPL, dB(A)	61	54

Note: (1) Horizontal distance has been applied for existing industrial buildings for a conservative approach.

Proposed Residential Development at Lai Sun Yuen Long Centre at No. 27 Wang Yip Steet East, Yuen Long
Detailed Calculation of Fixed Source Noise Impact Assessment
With Noise Barrier on top of clubhouse

NSR	x	y
F1-44	821073.4	834353.1

0 - Non screen
1 - Screen

Source	Source ID	x	y	Day and Evening Time SWL, dB(A)	Night Time SWL, dB(A)	Screening	Shortest Horizontal Distance, m	Distance Attenuation, dB(A)	Tonality Correction, dB(A)	Screening Correction, dB(A)	Façade Correction, dB(A)	Day and Evening Time SPL, Leq (30min) dB(A)	Night Time SPL, Leq (30min) dB(A)
On Lok Road Substation	S1a	821039	834312	88.1	84.6	0	53	-43	6	0	3	54.6	51.1
On Lok Road Substation	S1b	821046	834308	88.1	84.6	0	53	-43	6	0	3	54.6	51.1
On Lok Road Substation	S1c	821053	834302	88.1	84.6	1	55	-43	6	-10	3	44.3	40.8
On Lok Road Substation	S1d	821061	834297	88.1	84.6	1	58	-43	6	-10	3	43.9	40.4
On Lok Road Substation	S1e	821067	834292	88.1	84.6	1	61	-44	6	-10	3	43.4	39.9
On Lok Road Substation	S1f	821073	834288	88.1	84.6	1	65	-44	6	-10	3	42.8	39.3
Sum Kee Metal Company Limited	S2	821033	834339	93.1	0.0	1	43	-41	0	-10	3	45.4	0.0
健記汽車服冷氣電器	S3	821037	834352	91.0	0.0	1	36	-39	0	-10	3	44.8	0.0
裕記膠輪電池	S4	821025	834366	97.0	0.0	1	50	-42	0	-10	3	48.1	0.0
珠江車房	S5	821026	834385	97.8	0.0	1	57	-43	0	-10	3	47.7	0.0
元朗膠輪電池有限公司	S6	821063	834379	100.8	0.0	1	28	-37	0	-10	3	57.0	0.0
新界車房	S7	821080	834404	91.0	0.0	1	52	-42	0	-10	3	41.7	0.0
Keeper 日本專業汽車美容連鎖	S8	821084	834416	87.9	0.0	1	64	-44	0	-10	3	36.8	0.0
長城汽車維修公司	S9	821076	834425	91.0	0.0	1	72	-45	0	-10	3	38.8	0.0
合興汽車電器工程	S11	821125	834467	97.0	0.0	1	125	-50	0	-10	3	40.1	0.0
Good Year Autocare 輪胎電池服務中心	S12	821141	834490	97.0	0.0	1	152	-52	0	-10	3	38.3	0.0
新興汽車服務中心	S13	821184	834554	97.0	0.0	1	230	-55	0	-10	3	34.8	0.0
偉基汽車有限公司	S14	821198	834570	99.4	0.0	1	250	-56	0	-10	3	36.5	0.0
Transport Department Designated Car Testing Centre (運輸署指定車輛測試中心)	S15	821270	834548	95.1	0.0	1	277	-57	0	-10	3	31.3	0.0
進步膠輪電池有限公司	S16	821141	834490	96.1	0.0	1	153	-52	0	-10	3	37.4	0.0
高加達精密機械工程有限公司	S17	821074	834396	88.0	0.0	1	43	-41	0	-10	3	40.3	0.0
力高汽車維修	S18	821066	834385	88.0	0.0	1	33	-38	0	-10	3	42.7	0.0
Golden Town Industrial Building (錦城工業大廈) - Cooling Tower	C6	821180	834559	77.6	77.6	1	231	-55	0	-10	3	15.3	15.3
	C7	821181	834561	77.6	77.6	1	234	-55	0	-10	3	15.2	15.2
Flourish Food Manufactory Centre (榮華中心工業大廈) - Cooling Tower	C8a	821155	834171	80.1	80.1	1	199	-54	0	-10	3	19.1	19.1
	C8b	821154	834168	80.1	80.1	1	202	-54	0	-10	3	19.0	19.0
	C8c	821152	834166	80.1	80.1	1	203	-54	0	-10	3	19.0	19.0
	C8d	821149	834164	80.1	80.1	1	203	-54	0	-10	3	18.9	18.9
	C8e	821147	834167	80.1	80.1	1	200	-54	0	-10	3	19.0	19.0
	C8f	821145	834170	80.1	80.1	1	197	-54	0	-10	3	19.2	19.2
	C8g	821149	834170	79.1	79.1	1	198	-54	0	-10	3	18.2	18.2
The Rainbow (虹方) - Cooling Tower	C9a	820894	834369	92.0	92.0	1	180	-53	6	-10	3	37.9	37.9
	C9b	820889	834362	92.0	92.0	1	185	-53	6	-10	3	37.7	37.7
One North (朗壹廣場) - Cooling Tower	C10a	821111	834620	92.7	0.0	1	269	-57	0	-10	3	29.1	0.0
	C10b	821108	834616	92.7	92.7	1	265	-56	0	-10	3	29.2	29.2
	C10c	821060	834608	92.7	92.7	1	255	-56	0	-10	3	29.6	29.6
	C10d	821065	834604	92.7	92.7	1	252	-56	0	-10	3	29.7	29.7
	C10e	821070	834601	86.6	0.0	1	248	-56	0	-10	3	23.7	0.0
	C10f	821079	834590	92.7	92.7	1	237	-56	0	-10	3	30.2	30.2
	C10g	821076	834585	92.7	92.7	1	232	-55	0	-10	3	30.4	30.4
One North (朗壹廣場) - Chiller	C10h	821113	834626	90.0	0.0	1	275	-57	6	-10	3	32.2	0.0
	C10i	821072	834581	90.0	0.0	1	227	-55	6	-10	3	33.9	0.0
											Predicted SPL, dB(A)	62	55

Note: (1) Horizontal distance has been applied for existing industrial buildings for a conservative approach.

Proposed Residential Development at Lai Sun Yuen Long Centre at No. 27 Wang Yip Steet East, Yuen Long
Detailed Calculation of Fixed Source Noise Impact Assessment
With Noise Barrier on top of clubhouse

NSR	x	y
F1-44	821076.1	834349.8

0 - Non screen
1 - Screen

Source	Source ID	x	y	Day and Evening Time SWL, dB(A)	Night Time SWL, dB(A)	Screening	Shortest Horizontal Distance, m	Distance Attenuation, dB(A)	Tonality Correction, dB(A)	Screening Correction, dB(A)	Façade Correction, dB(A)	Day and Evening Time SPL, Leq (30min) dB(A)	Night Time SPL, Leq (30min) dB(A)
On Lok Road Substation	S1a	821039	834312	88.1	84.6	0	53	-42	6	0	3	54.7	51.2
On Lok Road Substation	S1b	821046	834308	88.1	84.6	0	52	-42	6	0	3	54.8	51.3
On Lok Road Substation	S1c	821053	834302	88.1	84.6	1	53	-42	6	-10	3	44.6	41.1
On Lok Road Substation	S1d	821061	834297	88.1	84.6	1	55	-43	6	-10	3	44.3	40.8
On Lok Road Substation	S1e	821067	834292	88.1	84.6	1	58	-43	6	-10	3	43.8	40.3
On Lok Road Substation	S1f	821073	834288	88.1	84.6	1	62	-44	6	-10	3	43.2	39.7
Sum Kee Metal Company Limited	S2	821033	834339	93.1	0.0	1	45	-41	0	-10	3	45.1	0.0
健記汽車服冷氣電器	S3	821037	834352	91.0	0.0	1	39	-40	0	-10	3	44.2	0.0
裕記膠輪電池	S4	821025	834366	97.0	0.0	1	53	-43	0	-10	3	47.5	0.0
珠江車房	S5	821026	834385	97.8	0.0	1	61	-44	0	-10	3	47.1	0.0
元朗膠輪電池有限公司	S6	821063	834379	100.8	0.0	1	32	-38	0	-10	3	55.8	0.0
新界車房	S7	821080	834404	91.0	0.0	1	55	-43	0	-10	3	41.2	0.0
Keeper 日本專業汽車美容連鎖	S8	821084	834416	87.9	0.0	1	67	-45	0	-10	3	36.4	0.0
長城汽車維修公司	S9	821076	834425	91.0	0.0	1	76	-46	0	-10	3	38.4	0.0
合興汽車電器工程	S11	821125	834467	97.0	0.0	1	127	-50	0	-10	3	39.9	0.0
Good Year Autocare 輪胎電池服務中心	S12	821141	834490	97.0	0.0	1	154	-52	0	-10	3	38.2	0.0
新興汽車服務中心	S13	821184	834554	97.0	0.0	1	231	-55	0	-10	3	34.7	0.0
偉基汽車有限公司	S14	821198	834570	99.4	0.0	1	251	-56	0	-10	3	36.4	0.0
Transport Department Designated Car Testing Centre (運輸署指定車輛測試中心)	S15	821270	834548	95.1	0.0	1	277	-57	0	-10	3	31.2	0.0
進步膠輪電池有限公司	S16	821141	834490	96.1	0.0	1	154	-52	0	-10	3	37.3	0.0
高加達精密機械工程有限公司	S17	821074	834396	88.0	0.0	1	46	-41	0	-10	3	39.7	0.0
力高汽車維修	S18	821066	834385	88.0	0.0	1	37	-39	0	-10	3	41.7	0.0
Golden Town Industrial Building (錦城工業大廈) - Cooling Tower	C6	821180	834559	77.6	77.6	1	233	-55	0	-10	3	15.2	15.2
	C7	821181	834561	77.6	77.6	1	236	-55	0	-10	3	15.1	15.1
Flourish Food Manufactory Centre (榮華中心工業大廈) - Cooling Tower	C8a	821155	834171	80.1	80.1	1	195	-54	0	-10	3	19.3	19.3
	C8b	821154	834168	80.1	80.1	1	198	-54	0	-10	3	19.2	19.2
	C8c	821152	834166	80.1	80.1	1	198	-54	0	-10	3	19.1	19.1
	C8d	821149	834164	80.1	80.1	1	199	-54	0	-10	3	19.1	19.1
	C8e	821147	834167	80.1	80.1	1	196	-54	0	-10	3	19.2	19.2
	C8f	821145	834170	80.1	80.1	1	193	-54	0	-10	3	19.4	19.4
	C8g	821149	834170	79.1	79.1	1	194	-54	0	-10	3	18.3	18.3
The Rainbow (虹方) - Cooling Tower	C9a	820894	834369	92.0	92.0	1	183	-53	6	-10	3	37.7	37.7
	C9b	820889	834362	92.0	92.0	1	188	-53	6	-10	3	37.5	37.5
One North (朗壹廣場) - Cooling Tower	C10a	821111	834620	92.7	0.0	1	272	-57	0	-10	3	29.0	0.0
	C10b	821108	834616	92.7	92.7	1	268	-57	0	-10	3	29.1	29.1
	C10c	821060	834608	92.7	92.7	1	259	-56	0	-10	3	29.4	29.4
	C10d	821065	834604	92.7	92.7	1	255	-56	0	-10	3	29.6	29.6
	C10e	821070	834601	86.6	0.0	1	251	-56	0	-10	3	23.6	0.0
	C10f	821079	834590	92.7	92.7	1	240	-56	0	-10	3	30.1	30.1
	C10g	821076	834585	92.7	92.7	1	236	-55	0	-10	3	30.3	30.3
One North (朗壹廣場) - Chiller	C10h	821113	834626	90.0	0.0	1	278	-57	6	-10	3	32.1	0.0
	C10i	821072	834581	90.0	0.0	1	231	-55	6	-10	3	33.7	0.0
											Predicted SPL, dB(A)	61	55

Note: (1) Horizontal distance has been applied for existing industrial buildings for a conservative approach.

Proposed Residential Development at Lai Sun Yuen Long Centre at No. 27 Wang Yip Steet East, Yuen Long
Detailed Calculation of Fixed Source Noise Impact Assessment
With Noise Barrier on top of clubhouse

NSR	x	y
F2-07	821087.6	834299.4

0 - Non screen
1 - Screen

Source	Source ID	x	y	Day and Evening Time SWL, dB(A)	Night Time SWL, dB(A)	Screening	Shortest Horizontal Distance, m	Distance Attenuation, dB(A)	Tonality Correction, dB(A)	Screening Correction, dB(A)	Façade Correction, dB(A)	Day and Evening Time SPL, Leq (30min) dB(A)	Night Time SPL, Leq (30min) dB(A)
On Lok Road Substation	S1a	821039	834312	88.1	84.6	1	50	-42	6	-10	3	45.1	41.6
On Lok Road Substation	S1b	821046	834308	88.1	84.6	1	43	-41	6	-10	3	46.5	43.0
On Lok Road Substation	S1c	821053	834302	88.1	84.6	1	34	-39	6	-10	3	48.3	44.8
On Lok Road Substation	S1d	821061	834297	88.1	84.6	1	27	-37	6	-10	3	50.4	46.9
On Lok Road Substation	S1e	821067	834292	88.1	84.6	1	22	-35	6	-10	3	52.4	48.9
On Lok Road Substation	S1f	821073	834288	88.1	84.6	1	19	-33	6	-10	3	53.7	50.2
Sum Kee Metal Company Limited	S2	821033	834339	93.1	0.0	0	68	-45	0	0	3	51.5	0.0
健記汽車服冷氣電器	S3	821037	834352	91.0	0.0	0	73	-45	0	0	3	48.8	0.0
裕記膠輪電池	S4	821025	834366	97.0	0.0	0	91	-47	0	0	3	52.8	0.0
珠江車房	S5	821026	834385	97.8	0.0	0	105	-48	0	0	3	52.4	0.0
元朗膠輪電池有限公司	S6	821063	834379	100.8	0.0	1	83	-46	0	-10	3	47.4	0.0
新界車房	S7	821080	834404	91.0	0.0	1	105	-48	0	-10	3	35.6	0.0
Keeper 日本專業汽車美容連鎖	S8	821084	834416	87.9	0.0	1	117	-49	0	-10	3	31.5	0.0
長城汽車維修公司	S9	821076	834425	91.0	0.0	1	127	-50	0	-10	3	34.0	0.0
合興汽車電器工程	S11	821125	834467	97.0	0.0	1	172	-53	0	-10	3	37.3	0.0
Good Year Autocare 輪胎電池服務中心	S12	821141	834490	97.0	0.0	1	198	-54	0	-10	3	36.1	0.0
新興汽車服務中心	S13	821184	834554	97.0	0.0	1	272	-57	0	-10	3	33.3	0.0
偉基汽車有限公司	S14	821198	834570	99.4	0.0	1	292	-57	0	-10	3	35.1	0.0
Transport Department Designated Car Testing Centre (運輸署指定車輛測試中心)	S15	821270	834548	95.1	0.0	1	308	-58	0	-10	3	30.3	0.0
進步膠輪電池有限公司	S16	821141	834490	96.1	0.0	1	198	-54	0	-10	3	35.2	0.0
高加達精密機械工程有限公司	S17	821074	834396	88.0	0.0	1	98	-48	0	-10	3	33.2	0.0
力高汽車維修	S18	821066	834385	88.0	0.0	1	88	-47	0	-10	3	34.1	0.0
Golden Town Industrial Building (錦城工業大廈) - Cooling Tower	C6	821180	834559	77.6	77.6	1	275	-57	0	-10	3	13.8	13.8
	C7	821181	834561	77.6	77.6	1	278	-57	0	-10	3	13.7	13.7
Flourish Food Manufactory Centre (榮華中心工業大廈) - Cooling Tower	C8a	821155	834171	80.1	80.1	1	145	-51	0	-10	3	21.9	21.9
	C8b	821154	834168	80.1	80.1	1	147	-51	0	-10	3	21.7	21.7
	C8c	821152	834166	80.1	80.1	1	148	-51	0	-10	3	21.7	21.7
	C8d	821149	834164	80.1	80.1	1	148	-51	0	-10	3	21.7	21.7
	C8e	821147	834167	80.1	80.1	1	145	-51	0	-10	3	21.8	21.8
	C8f	821145	834170	80.1	80.1	1	142	-51	0	-10	3	22.0	22.0
	C8g	821149	834170	79.1	79.1	1	143	-51	0	-10	3	21.0	21.0
The Rainbow (虹方) - Cooling Tower	C9a	820894	834369	92.0	92.0	1	206	-54	6	-10	3	36.7	36.7
	C9b	820889	834362	92.0	92.0	1	209	-54	6	-10	3	36.6	36.6
One North (朗壹廣場) - Cooling Tower	C10a	821111	834620	92.7	0.0	1	321	-58	0	-10	3	27.6	0.0
	C10b	821108	834616	92.7	92.7	1	317	-58	0	-10	3	27.7	27.7
	C10c	821060	834608	92.7	92.7	1	310	-58	0	-10	3	27.9	27.9
	C10d	821065	834604	92.7	92.7	1	306	-58	0	-10	3	28.0	28.0
	C10e	821070	834601	86.6	0.0	1	302	-58	0	-10	3	22.0	0.0
	C10f	821079	834590	92.7	92.7	1	291	-57	0	-10	3	28.4	28.4
	C10g	821076	834585	92.7	92.7	1	286	-57	0	-10	3	28.6	28.6
One North (朗壹廣場) - Chiller	C10h	821113	834626	90.0	0.0	1	327	-58	6	-10	3	30.7	0.0
	C10i	821072	834581	90.0	0.0	1	282	-57	6	-10	3	32.0	0.0
											Predicted SPL, dB(A)	61	55

Note: (1) Horizontal distance has been applied for existing industrial buildings for a conservative approach.

Proposed Residential Development at Lai Sun Yuen Long Centre at No. 27 Wang Yip Steet East, Yuen Long
Detailed Calculation of Fixed Source Noise Impact Assessment
With Noise Barrier on top of clubhouse

NSR	x	y
F2-10	821092.4	834298.4

0 - Non screen
1 - Screen

Source	Source ID	x	y	Day and Evening Time SWL, dB(A)	Night Time SWL, dB(A)	Screening	Shortest Horizontal Distance, m	Distance Attenuation, dB(A)	Tonality Correction, dB(A)	Screening Correction, dB(A)	Façade Correction, dB(A)	Day and Evening Time SPL, Leq (30min) dB(A)	Night Time SPL, Leq (30min) dB(A)
On Lok Road Substation	S1a	821039	834312	88.1	84.6	1	55	-43	6	-10	3	44.3	40.8
On Lok Road Substation	S1b	821046	834308	88.1	84.6	1	47	-42	6	-10	3	45.6	42.1
On Lok Road Substation	S1c	821053	834302	88.1	84.6	1	39	-40	6	-10	3	47.2	43.7
On Lok Road Substation	S1d	821061	834297	88.1	84.6	1	32	-38	6	-10	3	49.0	45.5
On Lok Road Substation	S1e	821067	834292	88.1	84.6	1	26	-36	6	-10	3	50.8	47.3
On Lok Road Substation	S1f	821073	834288	88.1	84.6	1	22	-35	6	-10	3	52.2	48.7
Sum Kee Metal Company Limited	S2	821033	834339	93.1	0.0	0	72	-45	0	0	3	50.9	0.0
健記汽車服冷氣電器	S3	821037	834352	91.0	0.0	0	77	-46	0	0	3	48.3	0.0
裕記膠輪電池	S4	821025	834366	97.0	0.0	0	95	-48	0	0	3	52.4	0.0
珠江車房	S5	821026	834385	97.8	0.0	0	109	-49	0	0	3	52.1	0.0
元朗膠輪電池有限公司	S6	821063	834379	100.8	0.0	1	86	-47	0	-10	3	47.2	0.0
新界車房	S7	821080	834404	91.0	0.0	1	107	-49	0	-10	3	35.4	0.0
Keeper 日本專業汽車美容連鎖	S8	821084	834416	87.9	0.0	1	118	-49	0	-10	3	31.5	0.0
長城汽車維修公司	S9	821076	834425	91.0	0.0	1	128	-50	0	-10	3	33.9	0.0
合興汽車電器工程	S11	821125	834467	97.0	0.0	1	172	-53	0	-10	3	37.3	0.0
Good Year Autocare 輪胎電池服務中心	S12	821141	834490	97.0	0.0	1	197	-54	0	-10	3	36.1	0.0
新興汽車服務中心	S13	821184	834554	97.0	0.0	1	272	-57	0	-10	3	33.3	0.0
偉基汽車有限公司	S14	821198	834570	99.4	0.0	1	291	-57	0	-10	3	35.1	0.0
Transport Department Designated Car Testing Centre (運輸署指定車輛測試中心)	S15	821270	834548	95.1	0.0	1	306	-58	0	-10	3	30.4	0.0
進步膠輪電池有限公司	S16	821141	834490	96.1	0.0	1	198	-54	0	-10	3	35.2	0.0
高加達精密機械工程有限公司	S17	821074	834396	88.0	0.0	1	99	-48	0	-10	3	33.1	0.0
力高汽車維修	S18	821066	834385	88.0	0.0	1	91	-47	0	-10	3	33.9	0.0
Golden Town Industrial Building (錦城工業大廈) - Cooling Tower	C6	821180	834559	77.6	77.6	1	274	-57	0	-10	3	13.8	13.8
	C7	821181	834561	77.6	77.6	1	277	-57	0	-10	3	13.7	13.7
Flourish Food Manufactory Centre (榮華中心工業大廈) - Cooling Tower	C8a	821155	834171	80.1	80.1	1	142	-51	0	-10	3	22.1	22.1
	C8b	821154	834168	80.1	80.1	1	144	-51	0	-10	3	21.9	21.9
	C8c	821152	834166	80.1	80.1	1	145	-51	0	-10	3	21.9	21.9
	C8d	821149	834164	80.1	80.1	1	146	-51	0	-10	3	21.8	21.8
	C8e	821147	834167	80.1	80.1	1	143	-51	0	-10	3	22.0	22.0
	C8f	821145	834170	80.1	80.1	1	139	-51	0	-10	3	22.2	22.2
	C8g	821149	834170	79.1	79.1	1	140	-51	0	-10	3	21.2	21.2
The Rainbow (虹方) - Cooling Tower	C9a	820894	834369	92.0	92.0	1	211	-54	6	-10	3	36.5	36.5
	C9b	820889	834362	92.0	92.0	1	214	-55	6	-10	3	36.4	36.4
One North (朗壹廣場) - Cooling Tower	C10a	821111	834620	92.7	0.0	1	322	-58	0	-10	3	27.5	0.0
	C10b	821108	834616	92.7	92.7	1	318	-58	0	-10	3	27.6	27.6
	C10c	821060	834608	92.7	92.7	1	311	-58	0	-10	3	27.8	27.8
	C10d	821065	834604	92.7	92.7	1	307	-58	0	-10	3	28.0	28.0
	C10e	821070	834601	86.6	0.0	1	303	-58	0	-10	3	22.0	0.0
	C10f	821079	834590	92.7	92.7	1	292	-57	0	-10	3	28.4	28.4
	C10g	821076	834585	92.7	92.7	1	287	-57	0	-10	3	28.5	28.5
One North (朗壹廣場) - Chiller	C10h	821113	834626	90.0	0.0	1	328	-58	6	-10	3	30.7	0.0
	C10i	821072	834581	90.0	0.0	1	283	-57	6	-10	3	32.0	0.0
											Predicted SPL, dB(A)	60	54

Note: (1) Horizontal distance has been applied for existing industrial buildings for a conservative approach.

Proposed Residential Development at Lai Sun Yuen Long Centre at No. 27 Wang Yip Steet East, Yuen Long
Detailed Calculation of Fixed Source Noise Impact Assessment
With Noise Barrier on top of clubhouse

NSR	x	y
F2-19	821109.9	834305.2

0 - Non screen
1 - Screen

Source	Source ID	x	y	Day and Evening Time SWL, dB(A)	Night Time SWL, dB(A)	Screening	Shortest Horizontal Distance, m	Distance Attenuation, dB(A)	Tonality Correction, dB(A)	Screening Correction, dB(A)	Façade Correction, dB(A)	Day and Evening Time SPL, Leq (30min) dB(A)	Night Time SPL, Leq (30min) dB(A)
On Lok Road Substation	S1a	821039	834312	88.1	84.6	0	71	-45	6	0	3	52.1	48.6
On Lok Road Substation	S1b	821046	834308	88.1	84.6	1	64	-44	6	-10	3	43.0	39.5
On Lok Road Substation	S1c	821053	834302	88.1	84.6	1	57	-43	6	-10	3	44.0	40.5
On Lok Road Substation	S1d	821061	834297	88.1	84.6	1	50	-42	6	-10	3	45.1	41.6
On Lok Road Substation	S1e	821067	834292	88.1	84.6	1	45	-41	6	-10	3	46.1	42.6
On Lok Road Substation	S1f	821073	834288	88.1	84.6	1	41	-40	6	-10	3	46.9	43.4
Sum Kee Metal Company Limited	S2	821033	834339	93.1	0.0	0	84	-47	0	0	3	49.6	0.0
健記汽車服冷氣電器	S3	821037	834352	91.0	0.0	0	86	-47	0	0	3	47.3	0.0
裕記膠輪電池	S4	821025	834366	97.0	0.0	0	104	-48	0	0	3	51.6	0.0
珠江車房	S5	821026	834385	97.8	0.0	0	116	-49	0	0	3	51.5	0.0
元朗膠輪電池有限公司	S6	821063	834379	100.8	0.0	1	87	-47	0	-10	3	47.0	0.0
新界車房	S7	821080	834404	91.0	0.0	1	104	-48	0	-10	3	35.7	0.0
Keeper 日本專業汽車美容連鎖	S8	821084	834416	87.9	0.0	1	114	-49	0	-10	3	31.8	0.0
長城汽車維修公司	S9	821076	834425	91.0	0.0	1	125	-50	0	-10	3	34.1	0.0
合興汽車電器工程	S11	821125	834467	97.0	0.0	1	162	-52	0	-10	3	37.8	0.0
Good Year Autocare 輪胎電池服務中心	S12	821141	834490	97.0	0.0	1	187	-53	0	-10	3	36.6	0.0
新興汽車服務中心	S13	821184	834554	97.0	0.0	1	260	-56	0	-10	3	33.7	0.0
偉基汽車有限公司	S14	821198	834570	99.4	0.0	1	279	-57	0	-10	3	35.5	0.0
Transport Department Designated Car Testing Centre (運輸署指定車輛測試中心)	S15	821270	834548	95.1	0.0	1	291	-57	0	-10	3	30.8	0.0
進步膠輪電池有限公司	S16	821141	834490	96.1	0.0	1	187	-53	0	-10	3	35.6	0.0
高加達精密機械工程有限公司	S17	821074	834396	88.0	0.0	1	98	-48	0	-10	3	33.2	0.0
力高汽車維修	S18	821066	834385	88.0	0.0	1	91	-47	0	-10	3	33.8	0.0
Golden Town Industrial Building (錦城工業大廈) - Cooling Tower	C6	821180	834559	77.6	77.6	1	263	-56	0	-10	3	14.2	14.2
	C7	821181	834561	77.6	77.6	1	266	-56	0	-10	3	14.1	14.1
Flourish Food Manufactory Centre (榮華中心工業大廈) - Cooling Tower	C8a	821155	834171	80.1	80.1	1	141	-51	0	-10	3	22.1	22.1
	C8b	821154	834168	80.1	80.1	1	144	-51	0	-10	3	21.9	21.9
	C8c	821152	834166	80.1	80.1	1	145	-51	0	-10	3	21.9	21.9
	C8d	821149	834164	80.1	80.1	1	146	-51	0	-10	3	21.8	21.8
	C8e	821147	834167	80.1	80.1	1	143	-51	0	-10	3	22.0	22.0
	C8f	821145	834170	80.1	80.1	1	140	-51	0	-10	3	22.1	22.1
	C8g	821149	834170	79.1	79.1	1	140	-51	0	-10	3	21.1	21.1
The Rainbow (虹方) - Cooling Tower	C9a	820894	834369	92.0	92.0	0	226	-55	6	0	3	45.9	45.9
	C9b	820889	834362	92.0	92.0	0	229	-55	6	0	3	45.8	45.8
One North (朗壹廣場) - Cooling Tower	C10a	821111	834620	92.7	0.0	1	315	-58	0	-10	3	27.7	0.0
	C10b	821108	834616	92.7	92.7	1	311	-58	0	-10	3	27.8	27.8
	C10c	821060	834608	92.7	92.7	1	307	-58	0	-10	3	28.0	28.0
	C10d	821065	834604	92.7	92.7	1	303	-58	0	-10	3	28.1	28.1
	C10e	821070	834601	86.6	0.0	1	299	-58	0	-10	3	22.1	0.0
	C10f	821079	834590	92.7	92.7	1	287	-57	0	-10	3	28.6	28.6
	C10g	821076	834585	92.7	92.7	1	282	-57	0	-10	3	28.7	28.7
One North (朗壹廣場) - Chiller	C10h	821113	834626	90.0	0.0	1	320	-58	6	-10	3	30.9	0.0
	C10i	821072	834581	90.0	0.0	1	278	-57	6	-10	3	32.1	0.0
											Predicted SPL, dB(A)	60	54

Note: (1) Horizontal distance has been applied for existing industrial buildings for a conservative approach.

Proposed Residential Development at Lai Sun Yuen Long Centre at No. 27 Wang Yip Steet East, Yuen Long
Detailed Calculation of Fixed Source Noise Impact Assessment
With Noise Barrier on top of clubhouse

NSR	x	y
F2-23	821115.1	834312.5

0 - Non screen
1 - Screen

Source	Source ID	x	y	Day and Evening Time SWL, dB(A)	Night Time SWL, dB(A)	Screening	Shortest Horizontal Distance, m	Distance Attenuation, dB(A)	Tonality Correction, dB(A)	Screening Correction, dB(A)	Façade Correction, dB(A)	Day and Evening Time SPL, Leq (30min) dB(A)	Night Time SPL, Leq (30min) dB(A)
On Lok Road Substation	S1a	821039	834312	88.1	84.6	0	76	-46	6	0	3	51.5	48.0
On Lok Road Substation	S1b	821046	834308	88.1	84.6	0	70	-45	6	0	3	52.3	48.8
On Lok Road Substation	S1c	821053	834302	88.1	84.6	1	63	-44	6	-10	3	43.1	39.6
On Lok Road Substation	S1d	821061	834297	88.1	84.6	1	57	-43	6	-10	3	44.0	40.5
On Lok Road Substation	S1e	821067	834292	88.1	84.6	1	52	-42	6	-10	3	44.8	41.3
On Lok Road Substation	S1f	821073	834288	88.1	84.6	1	49	-42	6	-10	3	45.3	41.8
Sum Kee Metal Company Limited	S2	821033	834339	93.1	0.0	0	87	-47	0	0	3	49.3	0.0
健記汽車服冷氣電器	S3	821037	834352	91.0	0.0	0	87	-47	0	0	3	47.2	0.0
裕記膠輪電池	S4	821025	834366	97.0	0.0	0	105	-48	0	0	3	51.6	0.0
珠江車房	S5	821026	834385	97.8	0.0	1	115	-49	0	-10	3	41.6	0.0
元朗膠輪電池有限公司	S6	821063	834379	100.8	0.0	1	84	-47	0	-10	3	47.3	0.0
新界車房	S7	821080	834404	91.0	0.0	1	99	-48	0	-10	3	36.1	0.0
Keeper 日本專業汽車美容連鎖	S8	821084	834416	87.9	0.0	1	108	-49	0	-10	3	32.2	0.0
長城汽車維修公司	S9	821076	834425	91.0	0.0	1	119	-50	0	-10	3	34.5	0.0
合興汽車電器工程	S11	821125	834467	97.0	0.0	1	155	-52	0	-10	3	38.2	0.0
Good Year Autocare 輪胎電池服務中心	S12	821141	834490	97.0	0.0	1	179	-53	0	-10	3	36.9	0.0
新興汽車服務中心	S13	821184	834554	97.0	0.0	1	251	-56	0	-10	3	34.0	0.0
偉基汽車有限公司	S14	821198	834570	99.4	0.0	1	270	-57	0	-10	3	35.8	0.0
Transport Department Designated Car Testing Centre (運輸署指定車輛測試中心)	S15	821270	834548	95.1	0.0	1	282	-57	0	-10	3	31.1	0.0
進步膠輪電池有限公司	S16	821141	834490	96.1	0.0	1	179	-53	0	-10	3	36.0	0.0
高加達精密機械工程有限公司	S17	821074	834396	88.0	0.0	1	93	-47	0	-10	3	33.6	0.0
力高汽車維修	S18	821066	834385	88.0	0.0	1	88	-47	0	-10	3	34.1	0.0
Golden Town Industrial Building (錦城工業大廈) - Cooling Tower	C6	821180	834559	77.6	77.6	1	254	-56	0	-10	3	14.5	14.5
	C7	821181	834561	77.6	77.6	1	257	-56	0	-10	3	14.4	14.4
Flourish Food Manufactory Centre (榮華中心工業大廈) - Cooling Tower	C8a	821155	834171	80.1	80.1	1	147	-51	0	-10	3	21.8	21.8
	C8b	821154	834168	80.1	80.1	1	150	-52	0	-10	3	21.6	21.6
	C8c	821152	834166	80.1	80.1	1	151	-52	0	-10	3	21.5	21.5
	C8d	821149	834164	80.1	80.1	1	152	-52	0	-10	3	21.4	21.4
	C8e	821147	834167	80.1	80.1	1	149	-51	0	-10	3	21.6	21.6
	C8f	821145	834170	80.1	80.1	1	146	-51	0	-10	3	21.8	21.8
	C8g	821149	834170	79.1	79.1	1	146	-51	0	-10	3	20.8	20.8
The Rainbow (虹方) - Cooling Tower	C9a	820894	834369	92.0	92.0	0	229	-55	6	0	3	45.8	45.8
	C9b	820889	834362	92.0	92.0	0	232	-55	6	0	3	45.7	45.7
One North (朗壹廣場) - Cooling Tower	C10a	821111	834620	92.7	0.0	1	307	-58	0	-10	3	27.9	0.0
	C10b	821108	834616	92.7	92.7	1	304	-58	0	-10	3	28.0	28.0
	C10c	821060	834608	92.7	92.7	1	301	-58	0	-10	3	28.1	28.1
	C10d	821065	834604	92.7	92.7	1	296	-57	0	-10	3	28.3	28.3
	C10e	821070	834601	86.6	0.0	1	292	-57	0	-10	3	22.3	0.0
	C10f	821079	834590	92.7	92.7	1	280	-57	0	-10	3	28.8	28.8
	C10g	821076	834585	92.7	92.7	1	276	-57	0	-10	3	28.9	28.9
One North (朗壹廣場) - Chiller	C10h	821113	834626	90.0	0.0	1	313	-58	6	-10	3	31.1	0.0
	C10i	821072	834581	90.0	0.0	1	271	-57	6	-10	3	32.3	0.0
											Predicted SPL, dB(A)	59	54

Note: (1) Horizontal distance has been applied for existing industrial buildings for a conservative approach.

Proposed Residential Development at Lai Sun Yuen Long Centre at No. 27 Wang Yip Steet East, Yuen Long
Detailed Calculation of Fixed Source Noise Impact Assessment
With Noise Barrier on top of clubhouse

NSR	x	y
F2-25	821118.0	834316.5

0 - Non screen
1 - Screen

Source	Source ID	x	y	Day and Evening Time SWL, dB(A)	Night Time SWL, dB(A)	Screening	Shortest Horizontal Distance, m	Distance Attenuation, dB(A)	Tonality Correction, dB(A)	Screening Correction, dB(A)	Façade Correction, dB(A)	Day and Evening Time SPL, Leq (30min) dB(A)	Night Time SPL, Leq (30min) dB(A)
On Lok Road Substation	S1a	821039	834312	88.1	84.6	0	79	-46	6	0	3	51.2	47.7
On Lok Road Substation	S1b	821046	834308	88.1	84.6	0	73	-45	6	0	3	51.9	48.4
On Lok Road Substation	S1c	821053	834302	88.1	84.6	1	66	-44	6	-10	3	42.7	39.2
On Lok Road Substation	S1d	821061	834297	88.1	84.6	1	61	-44	6	-10	3	43.4	39.9
On Lok Road Substation	S1e	821067	834292	88.1	84.6	1	56	-43	6	-10	3	44.1	40.6
On Lok Road Substation	S1f	821073	834288	88.1	84.6	1	53	-43	6	-10	3	44.6	41.1
Sum Kee Metal Company Limited	S2	821033	834339	93.1	0.0	0	88	-47	0	0	3	49.2	0.0
健記汽車服冷氣電器	S3	821037	834352	91.0	0.0	0	88	-47	0	0	3	47.1	0.0
裕記膠輪電池	S4	821025	834366	97.0	0.0	0	105	-48	0	0	3	51.6	0.0
珠江車房	S5	821026	834385	97.8	0.0	1	115	-49	0	-10	3	41.6	0.0
元朗膠輪電池有限公司	S6	821063	834379	100.8	0.0	1	83	-46	0	-10	3	47.4	0.0
新界車房	S7	821080	834404	91.0	0.0	1	96	-48	0	-10	3	36.4	0.0
Keeper 日本專業汽車美容連鎖	S8	821084	834416	87.9	0.0	1	105	-48	0	-10	3	32.4	0.0
長城汽車維修公司	S9	821076	834425	91.0	0.0	1	117	-49	0	-10	3	34.7	0.0
合興汽車電器工程	S11	821125	834467	97.0	0.0	1	151	-52	0	-10	3	38.4	0.0
Good Year Autocare 輪胎電池服務中心	S12	821141	834490	97.0	0.0	1	175	-53	0	-10	3	37.2	0.0
新興汽車服務中心	S13	821184	834554	97.0	0.0	1	247	-56	0	-10	3	34.2	0.0
偉基汽車有限公司	S14	821198	834570	99.4	0.0	1	265	-56	0	-10	3	35.9	0.0
Transport Department Designated Car Testing Centre (運輸署指定車輛測試中心)	S15	821270	834548	95.1	0.0	1	277	-57	0	-10	3	31.3	0.0
進步膠輪電池有限公司	S16	821141	834490	96.1	0.0	1	175	-53	0	-10	3	36.2	0.0
高加達精密機械工程有限公司	S17	821074	834396	88.0	0.0	1	91	-47	0	-10	3	33.8	0.0
力高汽車維修	S18	821066	834385	88.0	0.0	1	86	-47	0	-10	3	34.3	0.0
Golden Town Industrial Building (錦城工業大廈) - Cooling Tower	C6	821180	834559	77.6	77.6	1	250	-56	0	-10	3	14.6	14.6
	C7	821181	834561	77.6	77.6	1	253	-56	0	-10	3	14.5	14.5
Flourish Food Manufactory Centre (榮華中心工業大廈) - Cooling Tower	C8a	821155	834171	80.1	80.1	1	150	-52	0	-10	3	21.6	21.6
	C8b	821154	834168	80.1	80.1	1	153	-52	0	-10	3	21.4	21.4
	C8c	821152	834166	80.1	80.1	1	154	-52	0	-10	3	21.3	21.3
	C8d	821149	834164	80.1	80.1	1	155	-52	0	-10	3	21.3	21.3
	C8e	821147	834167	80.1	80.1	1	152	-52	0	-10	3	21.4	21.4
	C8f	821145	834170	80.1	80.1	1	149	-51	0	-10	3	21.6	21.6
	C8g	821149	834170	79.1	79.1	1	149	-51	0	-10	3	20.6	20.6
The Rainbow (虹方) - Cooling Tower	C9a	820894	834369	92.0	92.0	0	230	-55	6	0	3	45.7	45.7
	C9b	820889	834362	92.0	92.0	0	234	-55	6	0	3	45.6	45.6
One North (朗壹廣場) - Cooling Tower	C10a	821111	834620	92.7	0.0	1	304	-58	0	-10	3	28.1	0.0
	C10b	821108	834616	92.7	92.7	1	300	-58	0	-10	3	28.2	28.2
	C10c	821060	834608	92.7	92.7	1	297	-57	0	-10	3	28.2	28.2
	C10d	821065	834604	92.7	92.7	1	293	-57	0	-10	3	28.4	28.4
	C10e	821070	834601	86.6	0.0	1	289	-57	0	-10	3	22.4	0.0
	C10f	821079	834590	92.7	92.7	1	276	-57	0	-10	3	28.9	28.9
	C10g	821076	834585	92.7	92.7	1	272	-57	0	-10	3	29.0	29.0
One North (朗壹廣場) - Chiller	C10h	821113	834626	90.0	0.0	1	309	-58	6	-10	3	31.2	0.0
	C10i	821072	834581	90.0	0.0	1	268	-57	6	-10	3	32.4	0.0
											Predicted SPL, dB(A)	59	54

Note: (1) Horizontal distance has been applied for existing industrial buildings for a conservative approach.

Proposed Residential Development at Lai Sun Yuen Long Centre at No. 27 Wang Yip Steet East, Yuen Long
Detailed Calculation of Fixed Source Noise Impact Assessment
With Noise Barrier on top of clubhouse

NSR	x	y
F2-26	821119.1	834318.0

0 - Non screen
1 - Screen

Source	Source ID	x	y	Day and Evening Time SWL, dB(A)	Night Time SWL, dB(A)	Screening	Shortest Horizontal Distance, m	Distance Attenuation, dB(A)	Tonality Correction, dB(A)	Screening Correction, dB(A)	Façade Correction, dB(A)	Day and Evening Time SPL, Leq (30min) dB(A)	Night Time SPL, Leq (30min) dB(A)
On Lok Road Substation	S1a	821039	834312	88.1	84.6	0	80	-46	6	0	3	51.0	47.5
On Lok Road Substation	S1b	821046	834308	88.1	84.6	0	74	-45	6	0	3	51.7	48.2
On Lok Road Substation	S1c	821053	834302	88.1	84.6	1	68	-45	6	-10	3	42.5	39.0
On Lok Road Substation	S1d	821061	834297	88.1	84.6	1	62	-44	6	-10	3	43.2	39.7
On Lok Road Substation	S1e	821067	834292	88.1	84.6	1	58	-43	6	-10	3	43.8	40.3
On Lok Road Substation	S1f	821073	834288	88.1	84.6	1	55	-43	6	-10	3	44.3	40.8
Sum Kee Metal Company Limited	S2	821033	834339	93.1	0.0	0	89	-47	0	0	3	49.1	0.0
健記汽車服冷氣電器	S3	821037	834352	91.0	0.0	0	89	-47	0	0	3	47.0	0.0
裕記膠輪電池	S4	821025	834366	97.0	0.0	0	105	-48	0	0	3	51.5	0.0
珠江車房	S5	821026	834385	97.8	0.0	1	115	-49	0	-10	3	41.6	0.0
元朗膠輪電池有限公司	S6	821063	834379	100.8	0.0	1	82	-46	0	-10	3	47.5	0.0
新界車房	S7	821080	834404	91.0	0.0	1	95	-48	0	-10	3	36.4	0.0
Keeper 日本專業汽車美容連鎖	S8	821084	834416	87.9	0.0	1	104	-48	0	-10	3	32.5	0.0
長城汽車維修公司	S9	821076	834425	91.0	0.0	1	116	-49	0	-10	3	34.7	0.0
合興汽車電器工程	S11	821125	834467	97.0	0.0	1	149	-51	0	-10	3	38.5	0.0
Good Year Autocare 輪胎電池服務中心	S12	821141	834490	97.0	0.0	1	173	-53	0	-10	3	37.2	0.0
新興汽車服務中心	S13	821184	834554	97.0	0.0	1	245	-56	0	-10	3	34.2	0.0
偉基汽車有限公司	S14	821198	834570	99.4	0.0	1	264	-56	0	-10	3	36.0	0.0
Transport Department Designated Car Testing Centre (運輸署指定車輛測試中心)	S15	821270	834548	95.1	0.0	1	275	-57	0	-10	3	31.3	0.0
進步膠輪電池有限公司	S16	821141	834490	96.1	0.0	1	173	-53	0	-10	3	36.3	0.0
高加達精密機械工程有限公司	S17	821074	834396	88.0	0.0	1	90	-47	0	-10	3	33.9	0.0
力高汽車維修	S18	821066	834385	88.0	0.0	1	85	-47	0	-10	3	34.4	0.0
Golden Town Industrial Building (錦城工業大廈) - Cooling Tower	C6	821180	834559	77.6	77.6	1	248	-56	0	-10	3	14.7	14.7
	C7	821181	834561	77.6	77.6	1	251	-56	0	-10	3	14.6	14.6
Flourish Food Manufactory Centre (榮華中心工業大廈) - Cooling Tower	C8a	821155	834171	80.1	80.1	1	151	-52	0	-10	3	21.5	21.5
	C8b	821154	834168	80.1	80.1	1	154	-52	0	-10	3	21.3	21.3
	C8c	821152	834166	80.1	80.1	1	155	-52	0	-10	3	21.3	21.3
	C8d	821149	834164	80.1	80.1	1	157	-52	0	-10	3	21.2	21.2
	C8e	821147	834167	80.1	80.1	1	154	-52	0	-10	3	21.3	21.3
	C8f	821145	834170	80.1	80.1	1	151	-52	0	-10	3	21.5	21.5
	C8g	821149	834170	79.1	79.1	1	151	-52	0	-10	3	20.5	20.5
The Rainbow (虹方) - Cooling Tower	C9a	820894	834369	92.0	92.0	0	231	-55	6	0	3	45.7	45.7
	C9b	820889	834362	92.0	92.0	0	235	-55	6	0	3	45.6	45.6
One North (朗壹廣場) - Cooling Tower	C10a	821111	834620	92.7	0.0	1	302	-58	0	-10	3	28.1	0.0
	C10b	821108	834616	92.7	92.7	1	298	-57	0	-10	3	28.2	28.2
	C10c	821060	834608	92.7	92.7	1	296	-57	0	-10	3	28.3	28.3
	C10d	821065	834604	92.7	92.7	1	292	-57	0	-10	3	28.4	28.4
	C10e	821070	834601	86.6	0.0	1	287	-57	0	-10	3	22.4	0.0
	C10f	821079	834590	92.7	92.7	1	275	-57	0	-10	3	28.9	28.9
	C10g	821076	834585	92.7	92.7	1	271	-57	0	-10	3	29.0	29.0
One North (朗壹廣場) - Chiller	C10h	821113	834626	90.0	0.0	1	308	-58	6	-10	3	31.2	0.0
	C10i	821072	834581	90.0	0.0	1	267	-57	6	-10	3	32.5	0.0
											Predicted SPL, dB(A)	59	54

Note: (1) Horizontal distance has been applied for existing industrial buildings for a conservative approach.

Proposed Residential Development at Lai Sun Yuen Long Centre at No. 27 Wang Yip Steet East, Yuen Long
Detailed Calculation of Fixed Source Noise Impact Assessment
With Noise Barrier on top of clubhouse

NSR	x	y
F2-30	821124.6	834325.6

0 - Non screen
1 - Screen

Source	Source ID	x	y	Day and Evening Time SWL, dB(A)	Night Time SWL, dB(A)	Screening	Shortest Horizontal Distance, m	Distance Attenuation, dB(A)	Tonality Correction, dB(A)	Screening Correction, dB(A)	Façade Correction, dB(A)	Day and Evening Time SPL, Leq (30min) dB(A)	Night Time SPL, Leq (30min) dB(A)
On Lok Road Substation	S1a	821039	834312	88.1	84.6	0	86	-47	6	0	3	50.4	46.9
On Lok Road Substation	S1b	821046	834308	88.1	84.6	0	81	-46	6	0	3	50.9	47.5
On Lok Road Substation	S1c	821053	834302	88.1	84.6	1	75	-46	6	-10	3	41.6	38.1
On Lok Road Substation	S1d	821061	834297	88.1	84.6	1	70	-45	6	-10	3	42.2	38.7
On Lok Road Substation	S1e	821067	834292	88.1	84.6	1	66	-44	6	-10	3	42.6	39.2
On Lok Road Substation	S1f	821073	834288	88.1	84.6	1	64	-44	6	-10	3	43.0	39.5
Sum Kee Metal Company Limited	S2	821033	834339	93.1	0.0	0	93	-47	0	0	3	48.7	0.0
健記汽車服冷氣電器	S3	821037	834352	91.0	0.0	0	91	-47	0	0	3	46.8	0.0
裕記膠輪電池	S4	821025	834366	97.0	0.0	1	107	-49	0	-10	3	41.4	0.0
珠江車房	S5	821026	834385	97.8	0.0	1	115	-49	0	-10	3	41.6	0.0
元朗膠輪電池有限公司	S6	821063	834379	100.8	0.0	1	81	-46	0	-10	3	47.6	0.0
新界車房	S7	821080	834404	91.0	0.0	1	91	-47	0	-10	3	36.8	0.0
Keeper 日本專業汽車美容連鎖	S8	821084	834416	87.9	0.0	1	99	-48	0	-10	3	33.0	0.0
長城汽車維修公司	S9	821076	834425	91.0	0.0	1	111	-49	0	-10	3	35.1	0.0
合興汽車電器工程	S11	821125	834467	97.0	0.0	1	141	-51	0	-10	3	39.0	0.0
Good Year Autocare 輪胎電池服務中心	S12	821141	834490	97.0	0.0	1	165	-52	0	-10	3	37.7	0.0
新興汽車服務中心	S13	821184	834554	97.0	0.0	1	236	-55	0	-10	3	34.5	0.0
偉基汽車有限公司	S14	821198	834570	99.4	0.0	1	255	-56	0	-10	3	36.3	0.0
Transport Department Designated Car Testing Centre (運輸署指定車輛測試中心)	S15	821270	834548	95.1	0.0	1	266	-56	0	-10	3	31.6	0.0
進步膠輪電池有限公司	S16	821141	834490	96.1	0.0	1	165	-52	0	-10	3	36.7	0.0
高加達精密機械工程有限公司	S17	821074	834396	88.0	0.0	1	87	-47	0	-10	3	34.2	0.0
力高汽車維修	S18	821066	834385	88.0	0.0	1	83	-46	0	-10	3	34.6	0.0
Golden Town Industrial Building (錦城工業大廈) - Cooling Tower	C6	821180	834559	77.6	77.6	1	239	-56	0	-10	3	15.0	15.0
	C7	821181	834561	77.6	77.6	1	242	-56	0	-10	3	14.9	14.9
Flourish Food Manufactory Centre (榮華中心工業大廈) - Cooling Tower	C8a	821155	834171	80.1	80.1	1	157	-52	0	-10	3	21.1	21.1
	C8b	821154	834168	80.1	80.1	1	160	-52	0	-10	3	21.0	21.0
	C8c	821152	834166	80.1	80.1	1	162	-52	0	-10	3	20.9	20.9
	C8d	821149	834164	80.1	80.1	1	163	-52	0	-10	3	20.8	20.8
	C8e	821147	834167	80.1	80.1	1	160	-52	0	-10	3	21.0	21.0
	C8f	821145	834170	80.1	80.1	1	157	-52	0	-10	3	21.1	21.1
	C8g	821149	834170	79.1	79.1	1	157	-52	0	-10	3	20.2	20.2
The Rainbow (虹方) - Cooling Tower	C9a	820894	834369	92.0	92.0	0	235	-55	6	0	3	45.6	45.6
	C9b	820889	834362	92.0	92.0	0	239	-56	6	0	3	45.4	45.4
One North (朗壹廣場) - Cooling Tower	C10a	821111	834620	92.7	0.0	1	295	-57	0	-10	3	28.3	0.0
	C10b	821108	834616	92.7	92.7	1	291	-57	0	-10	3	28.4	28.4
	C10c	821060	834608	92.7	92.7	1	290	-57	0	-10	3	28.5	28.5
	C10d	821065	834604	92.7	92.7	1	285	-57	0	-10	3	28.6	28.6
	C10e	821070	834601	86.6	0.0	1	281	-57	0	-10	3	22.6	0.0
	C10f	821079	834590	92.7	92.7	1	268	-57	0	-10	3	29.1	29.1
	C10g	821076	834585	92.7	92.7	1	264	-56	0	-10	3	29.3	29.3
One North (朗壹廣場) - Chiller	C10h	821113	834626	90.0	0.0	1	300	-58	6	-10	3	31.5	0.0
	C10i	821072	834581	90.0	0.0	1	260	-56	6	-10	3	32.7	0.0
											Predicted SPL, dB(A)	58	53

Note: (1) Horizontal distance has been applied for existing industrial buildings for a conservative approach.

Proposed Residential Development at Lai Sun Yuen Long Centre at No. 27 Wang Yip Steet East, Yuen Long
Detailed Calculation of Fixed Source Noise Impact Assessment
With Noise Barrier on top of clubhouse

NSR	x	y
F2-77	821110.7	834284.3

0 - Non screen
1 - Screen

Source	Source ID	x	y	Day and Evening Time SWL, dB(A)	Night Time SWL, dB(A)	Screening	Shortest Horizontal Distance, m	Distance Attenuation, dB(A)	Tonality Correction, dB(A)	Screening Correction, dB(A)	Façade Correction, dB(A)	Day and Evening Time SPL, Leq (30min) dB(A)	Night Time SPL, Leq (30min) dB(A)
On Lok Road Substation	S1a	821039	834312	88.1	84.6	1	77	-46	6	-10	3	41.4	37.9
On Lok Road Substation	S1b	821046	834308	88.1	84.6	1	69	-45	6	-10	3	42.3	38.8
On Lok Road Substation	S1c	821053	834302	88.1	84.6	1	60	-44	6	-10	3	43.5	40.0
On Lok Road Substation	S1d	821061	834297	88.1	84.6	1	52	-42	6	-10	3	44.8	41.3
On Lok Road Substation	S1e	821067	834292	88.1	84.6	1	44	-41	6	-10	3	46.2	42.7
On Lok Road Substation	S1f	821073	834288	88.1	84.6	1	38	-40	6	-10	3	47.5	44.0
Sum Kee Metal Company Limited	S2	821033	834339	93.1	0.0	1	95	-48	0	-10	3	38.5	0.0
健記汽車服冷氣電器	S3	821037	834352	91.0	0.0	1	100	-48	0	-10	3	36.0	0.0
裕記膠輪電池	S4	821025	834366	97.0	0.0	1	118	-49	0	-10	3	40.5	0.0
珠江車房	S5	821026	834385	97.8	0.0	1	131	-50	0	-10	3	40.4	0.0
元朗膠輪電池有限公司	S6	821063	834379	100.8	0.0	1	106	-48	0	-10	3	45.3	0.0
新界車房	S7	821080	834404	91.0	0.0	1	124	-50	0	-10	3	34.1	0.0
Keeper 日本專業汽車美容連鎖	S8	821084	834416	87.9	0.0	1	135	-51	0	-10	3	30.3	0.0
長城汽車維修公司	S9	821076	834425	91.0	0.0	1	145	-51	0	-10	3	32.8	0.0
合興汽車電器工程	S11	821125	834467	97.0	0.0	1	183	-53	0	-10	3	36.7	0.0
Good Year Autocare 輪胎電池服務中心	S12	821141	834490	97.0	0.0	1	207	-54	0	-10	3	35.7	0.0
新興汽車服務中心	S13	821184	834554	97.0	0.0	1	280	-57	0	-10	3	33.1	0.0
偉基汽車有限公司	S14	821198	834570	99.4	0.0	1	298	-57	0	-10	3	34.9	0.0
Transport Department Designated Car Testing Centre (運輸署指定車輛測試中心)	S15	821270	834548	95.1	0.0	1	308	-58	0	-10	3	30.3	0.0
進步膠輪電池有限公司	S16	821141	834490	96.1	0.0	1	208	-54	0	-10	3	34.7	0.0
高加達精密機械工程有限公司	S17	821074	834396	88.0	0.0	1	118	-49	0	-10	3	31.6	0.0
力高汽車維修	S18	821066	834385	88.0	0.0	1	110	-49	0	-10	3	32.2	0.0
Golden Town Industrial Building (錦城工業大廈) - Cooling Tower	C6	821180	834559	77.6	77.6	1	283	-57	0	-10	3	13.6	13.6
	C7	821181	834561	77.6	77.6	1	286	-57	0	-10	3	13.5	13.5
Flourish Food Manufactory Centre (榮華中心工業大廈) - Cooling Tower	C8a	821155	834171	80.1	80.1	0	121	-50	0	0	3	33.4	33.4
	C8b	821154	834168	80.1	80.1	0	124	-50	0	0	3	33.2	33.2
	C8c	821152	834166	80.1	80.1	0	125	-50	0	0	3	33.1	33.1
	C8d	821149	834164	80.1	80.1	0	126	-50	0	0	3	33.1	33.1
	C8e	821147	834167	80.1	80.1	0	123	-50	0	0	3	33.3	33.3
	C8f	821145	834170	80.1	80.1	0	120	-50	0	0	3	33.5	33.5
	C8g	821149	834170	79.1	79.1	0	120	-50	0	0	3	32.5	32.5
The Rainbow (虹方) - Cooling Tower	C9a	820894	834369	92.0	92.0	1	233	-55	6	-10	3	35.6	35.6
	C9b	820889	834362	92.0	92.0	1	235	-55	6	-10	3	35.6	35.6
One North (朗壹廣場) - Cooling Tower	C10a	821111	834620	92.7	0.0	1	336	-59	0	-10	3	27.2	0.0
	C10b	821108	834616	92.7	92.7	1	332	-58	0	-10	3	27.3	27.3
	C10c	821060	834608	92.7	92.7	1	328	-58	0	-10	3	27.4	27.4
	C10d	821065	834604	92.7	92.7	1	323	-58	0	-10	3	27.5	27.5
	C10e	821070	834601	86.6	0.0	1	319	-58	0	-10	3	21.5	0.0
	C10f	821079	834590	92.7	92.7	1	307	-58	0	-10	3	27.9	27.9
	C10g	821076	834585	92.7	92.7	1	303	-58	0	-10	3	28.1	28.1
One North (朗壹廣場) - Chiller	C10h	821113	834626	90.0	0.0	1	341	-59	6	-10	3	30.3	0.0
	C10i	821072	834581	90.0	0.0	1	299	-58	6	-10	3	31.5	0.0
											Predicted SPL, dB(A)	55	50

Note: (1) Horizontal distance has been applied for existing industrial buildings for a conservative approach.

Appendix 5-3 Referenced Noise Levels of the Fixed Noise Sources

SPECIFICATION FOR FT SERIES

SPECIFICATION FOR FT SERIES

ITEM	MODEL		FT-8	FT-10	FT-15	FT-20	FT-25	FT-30	FT-40	FT-50	FT-60	FT-80	FT-100	FT-125	FT-150	FT-175	FT-200	FT-225	FT-250	FT-300	FT-350	FT-400	FT-500	FT-600	FT-700	FT-800	FT-1000
Capacity	27 ºC WB Circulating water flow rate	m^3/ hr	6.2	7.8	11.7	15.6	19.5	23.4	31.2	39.1	46.9	62.5	78.1	97.7	117.2	136.7	156.2	175.8	195.3	234.4	273.4	312.5	390.6	468.7	546.8	625.0	781.2
	27 ºC WB Make-up water (Approx.)	m^3/ hr	0.1	0.1	0.2	0.2	0.3	0.3	0.4	0.6	0.7	0.9	1.1	1.4	1.7	2.0	2.2	2.5	2.8	3.4	3.9	4.5	5.6	6.7	7.8	8.9	11.2
	28 ºC WB Circulating water flow rate	m^3/ hr	5.6	7.4	10.6	14.4	17.8	21.5	28.7	36.3	42.5	58.8	70.6	88.2	107.5	125.0	142.5	160.0	176.2	212.5	250.0	287.5	337.5	431.2	512.4	575.0	718.7
	Make-up water (Approx.)	m^3/ hr	0.1	0.1	0.2	0.2	0.3	0.3	0.4	0.5	0.6	0.8	1.0	1.3	1.5	1.8	2.0	2.3	2.5	3.0	3.6	4.1	4.8	6.2	7.3	8.2	10.3
	Air flow rate (Approx.)	m^3/ min	70	85	140	160	230	280	330	420	450	700	830	950	1150	1200	1250	1600	1750	2000	2200	2450	2700	3500	3750	5000	5400
	Hot water temperature	ºC	37																								
	Cold water temperature	ºC	32																								
Overall Dimension	Diameter (φ)	mm	920	920	1160	1160	1490	1660	1660	1890	2100	2100	2900	2900	2900	3310	3310	3960	3960	4360	4760	4760	5600	6600	6600	7600	7600
	Height (H)	mm	1560	1700	1585	1835	1945	1885	2035	2110	2300	2475	2910	3110	3110	3300	3450	3920	3920	3990	4195	4255	4590	5310	5510	5660	5860
	Height (w/o motor) (m)	mm	1390	1530	1395	1645	1760	1720	1785	1860	1980	2155	2590	2790	2790	2880	3030	3300	3300	3290	3495	3495	3830	4470	4670	4720	4940
Material	Air inlet mesh		PVC																								
	Basin		FRP																								
	Casing		FRP																								
	Eliminator		FRP																								
	Fan		ABS Plastic								FRP					Aluminium alloy								FRP			
	Filler		PVC																								
	Motor support		Steel (Hot-dip galvanized)																								
	Sprinkler head		ABS Plastic										Aluminium alloy														
	Sprinkler pipe		PVC pipe																								
	Stand pipe		PVC pipe																								
	Structure		Steel (Hot-dip galvanized)																								
Fan	TYPE		Axial-flow																								
	Diameter	mm	550	640		770			930		1200		1500			1800		2400				3000		3400		3700	
	Speed	rpm	970								750					600		450				375		314			
	Driven type		Direct driven															Belt driven						Gear driven			
Motor	TYPE		Totally enclosed fan cooled outdoor 3 phase induction motor																								
	Power source		380V / 3 / 50Hz																								
	Rated output	kw	0.18		0.37		0.75		1.5				2.2			3.7		5.5		7.5		11		15		22	
	No of pole	Pole	6								8					10		4									
Distribution System	TYPE		Automatic sprinkler system																								
	Inlet dia	mm	40		50		80				100		125		150			200					250			300	
	Outlet dia		15		20		40						65					75					100	75		100	
	No of outlet		4								6		4					6						8		10	
Piping	Inlet	mm	40		50		80				100		125		150			200					250			300	
	Outlet	mm	40		50		80				100		125		150			200					250			300	
	Drain	mm	25										50					80					100				
	Overflow	mm	25										50					80					100				
	Float valve	mm	15								20					25		32					50			80	
	Manual make-up	mm	15										20			25		32					50			80	
Weight	Dry weight	Kg	56	65	75	85	105	130	150	180	250	270	500	540	580	870	900	1300	1350	1550	1720	2050	2450	3950	4050	4700	4900
	Operating weight	Kg	140	150	200	210	290	370	390	550	840	860	1600	1640	1680	2170	2200	2700	2750	3350	3720	3950	6150	9350	9450	11900	12100
Noise Level	Sound pressure level	dBA	45.5	47	48	50	52	54	58	59	58	59	61	61.5	62	62	62	63	63	64	64.5	61.5	62	65	66	73	74

Fixed Noise Source C6, C7

Fixed Noise Source C8a-f

Fixed Noise Source C8g

NOTE : Nominal cooling capacity is based on 13 ℓ / min / RT (1 RT=3,900 Kcal / hr) at 37ºC inlet water tpmperature, 32ºC outlet water temperature and 27ºC ambient wet bulb temperature.

The SPLs are measured 16m horizontally from the edge of the tower at 1.5m above the foundation level.

Pump head is obtained by adding resistance of piping/condenser and the tower height(H).

The unit dimension in this catalogue is metric. Specifications listed in this catalogue are subject to change without further noticefor technical improvement of our products.

PHYSICAL DATA, SIZES 30XB-850 TO 1700

30XB				850	900	1000	1100	1200	1300	1400	1500	1550	1700
Cooling													
Standard unit		Nominal capacity	kW	828	890	965	1126	1244	1332	1440	1492	1532	1689
Full load performances*	CA1	EER	kW/kW	3,13	3,13	2,97	3,08	3,1	3,18	3,08	3,12	3,23	3,25
		Eurovent class		A	A	B	B	A	A	B	A	-	-
Seasonal energy efficiency		**SEER $_{12/7°c}$ Comfort low temp.**	**kWh/kWh**	NA	**4,09**	NA	NA	**4,16**	NA	NA	NA	**4,15**	NA
		ηs cool $_{12/7°c}$	**%**	NA	**161**	NA	NA	**164**	NA	NA	NA	**163**	NA
		SEPR $_{12/7°c}$ Process high temp.	**kWh/kWh**	**5,17**	**5,08**	**5,13**	**5,31**	**5,46**	**5,33**	**5,43**	**5,11**	**5,31**	**5,24**
		SEPR $_{-2/-8°c}$ Process medium temp.**	**kWh/kWh**	**3,11**	**3,08**	**3,40**	**3,21**	**3,62**	**3,49**	**3,67**	**3,11**	**3,46**	**3,50**
Unit with option 15LS (+)		Nominal capacity	kW	775	859	929	1111	1211	1298	1391	1418	1457	1627
Full load performances*	CA1	EER	kW/kW	2,8	2,97	2,96	2,9	3,03	2,9	2,77	2,94	2,96	3,1
		Eurovent class		C	B	B	B	B	B	C	B	-	-
Seasonal energy efficiency		**SEER $_{12/7°c}$ Comfort low temp.**	**kWh/kWh**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
		ηs cool $_{12/7°c}$	**%**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
		SEPR $_{12/7°c}$ Process high temp.	**kWh/kWh**	**5,23**	**5,37**	**5,31**	**5,10**	**5,34**	**4,98**	**4,93**	**4,93**	**5,39**	**5,23**
		SEPR $_{-2/-8°c}$ Process medium temp.**	**kWh/kWh**	**3,13**	**3,08**	**3,75**	**3,14**	**3,60**	**3,57**	**3,66**	**3,13**	**3,61**	**3,71**
Sound levels													
Standard unit													
Sound power(1)			dB(A)	101	104	102	103	102	104	104	104	104	104
Sound pressure at 10 m(2)			dB(A)	70	71	69	70	69	71	71	71	71	70
Unit + option 15(3)													
Sound power(1)			dB(A)	97	99	98	98	98	100	99	99	100	100
Sound pressure at 10 m(2)			dB(A)	65	66	65	65	65	67	65	65	67	66
Unit + option 15LS(3)													
Sound power(1)			dB(A)	94	95	94	94	94	99	95	96	96	96
Sound pressure at 10 m(2)			dB(A)	60	62	65	65	61	65	61	-1	61	61
Unit + option 15LS+(3)													
Sound power(1)			dB(A)	91	93	92	93	93	97	94	95	93	93
Sound pressure at 10 m(2)			dB(A)	58	60	59	60	60	66	61	62	60	60
Dimensions													
Standard unit													
Length			mm	7186	7186	8380	9574	10770	11962	11962	13157	9574/ 4798	8380/ 8380
Width			mm	2253	2253	2253	2253	2253	2253	2253	2253	2253	2253
Height			mm	2297	2297	2297	2297	2297	2297	2297	2297	2297	2297
Operating weight(4)													
Standard unit			kg	5570	5848	6318	7292	7755	8625	8702	9016	3422/ 6714	5957/ 5957
Unit + option 15(3)			kg	5901	6179	6649	7663	8126	8997	9074	9388	3588/ 7046	6288/ 6288
Unit + option 118(3)			kg	6004	6302	6771	-	-	-	-	-	-	-
Unit + option 50(3)			kg	6430	6805	7272	-	-	-	-	-	-	-

Fixed Noise Source C9

* In accordance with standard EN14511-3:2013.
** With option 6 Low temperature brine solution
CA1 Cooling mode conditions: Evaporator water entering/leaving temperature 12°C/7°C, outside air temperature 35°C, evaporator fooling factor 0 m².K/W
ηs cool$_{12/7°c}$ & SEPR Réglementation Ecodesign applicable (UE) No 2016/2281
(1) In dB ref=10^{-12} W, 'A' weighted. Declared dual-number noise emission values in accordance with ISO 4871 with an associated uncertainty of +/-3dB(A). Measured in accordance with ISO 9614-1 and certified by Eurovent.
(2) In dB ref 20µPa, 'A' weighted. Declared dual-number noise emission values in accordance with ISO 4871 with an associated uncertainty of +/-3dB(A). For information, calculated from the sound power Lw(A).
(3) Options : 15 = Low noise, 15LS = Very Low noise, 118a = Dx freecooling option, 50= heat recovery.
(4) Values are guidelines only. Refer to the unit name plate.

EUROVENT CERTIFIED PERFORMANCE www.eurovent-certification.com

Valeurs certifiées Eurovent

Air cooled multi-scroll chiller

High efficiency

Reduced sound

Fixed Noise Source C10-h, C10-i

Cooling only				EWAQ-F-XR	170	190	210	240	300	310	330	340	390	410	430	500	580	650
Cooling capacity	Nom.			kW	165	188	211	236	304		340		385	407	433	502	579	645
Power input	Cooling	Nom.		kW	53.0	61.2	68.7	77.3	101		117		128	136	146	170	200	219
Capacity control	Method				Step													
	Minimum capacity			%	25.0	21.0	25.0	22.0	23.0		25.0		21.0	20.0	25.0	17.0	14.0	17.0
EER					3.12	3.07	3.08	3.05	3.00		2.92		3.01	2.99	2.96		2.90	2.95
ESEER					4.53	4.64	4.51	4.60	4.53	4.68	4.44	4.63	4.68	4.64	4.54	4.82	4.69	4.65
Dimensions	Unit	Height		mm	2,271					2,221	2,271	2,221						
		Width		mm	1,224					2,258	1,224	2,258						
		Depth		mm	4,413		5,313		6,213	3,210	6,213	3,210	4,110			5,910		5,910
Weight	Unit			kg	2,004	2,303	2,580	2,722	2,900	3,000	3,045	3,145	3,168	3,280	3,298	4,120	4,228	4,655
	Operation weight			kg	2,017	2,317	2,594	2,736	2,914	3,014	3,085	3,185	3,208	3,326	3,344	4,166	4,288	4,716
Water heat exchanger	Type				Plate heat exchanger													
	Water volume			l	12	14					40			46			60	
	Water flow rate	Cooling	Nom.	l/s	7.9	9.0	10.1	11.3	14.5		16.3		18.4	19.5	20.7	24.0	27.7	30.9
	Water pressure drop	Cooling	Nom.	kPa	24	25	31	39	21				28	26	27	38	40	51
Air heat exchanger	Type				High efficiency fin and tube type with integral subcooler													
Compressor	Type				Scroll compressor													
	Quantity				4												6	
Fan	Type				Direct propeller													
	Quantity				4		5		6				8			10		12
	Air flow rate	Nom.		l/s	16,743	16,285	20,618	19,522	24,428		23,426		32,570	31,235		39,044		46,852
	Speed			rpm	705													
Sound power level	Cooling	Nom.		dBA	83	84	85	86	87				89		90	89	90	92
Sound pressure level	Cooling	Nom.		dBA	64	65	66	67		68	67	68	69	70		69	70	71
Operation range	Water side	Cooling	Min.~Max.	°CDB	-13~18													
	Air side	Cooling	Min.~Max.	°CDB	-18~52													
Refrigerant	Type / GWP				R-410A / 2,087.5													
	Circuits	Quantity			2													
Refrigerant charge	Per circuit			kg/TCO_2Eq	14.0 / 29.2	15.5 / 32.4	16.5 / 34.4	20.0 / 41.8	24.0 / 50.1	26.0 / 54.3			31.0 / 64.7			35.0 / 73.1	36.0 / 75.2	41.5 / 86.6
Piping connections	Evaporator water inlet/outlet (OD)				3"													
Unit	Maximum starting current			A	276	332	346	401	472		501		618	632	646	628	754	801
	Nominal running current (RLA)		Cooling	A	107	116	125	139	180		204		226	239	255	300	347	380
	Maximum running current			A	132	143	157	173	220		249		283	296	310	377	419	465
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400													

SPECIFICATION

ITEM	MODER			ONE CELL							TWO CELLS					THREE CELLS			FOUR CELLS		
				FC-100	FC-125	FC-150	FC-175	FC-200	FC-225	FC-250	FC-300	FC-350	FC-400	FC-450	FC-500	FC-600	FC-675	FC-750	FC-800	FC-900	FC-1000
CAPACITY	27°C WB	circulating water flow rate	m^3/hr	78.0	97.5	117.0	136.5	156.0	175.5	195.0	234.0	273.0	312.0	351.0	390.0	468.0	526.5	585.0	624.0	702.0	780.0
		make-up water(approx.)	m^3/hr	1.1	1.4	1.7	2.0	2.2	2.5	2.8	3.3	3.9	4.5	5.0	5.6	6.7	7.5	8.4	8.9	10.0	11.2
	28°C WB	circulating water flow rate	m^3/hr	70	88	105	123	140	158	175	210	245	280	315	350	420	473	525	560	630	700
		make-up water(approx.)	m^3/hr	1.0	1.3	1.5	1.8	2.0	2.3	2.5	3.0	3.5	4.0	4.5	5.0	6.0	6.8	7.5	8.0	9.0	10.0
	Air flow rate(Approx.)		m^3/min	630	800	960	1135	1285	1460	1660	1920	2270	2570	2920	3320	3855	4380	4950	5140	5840	6640
	Hot water temperature		°C	37																	
	Cold water temperature		°C	32																	
OVERALL DIMENSION	Width		mm	1650		2000		2300	2600		4000		4600	5200		6900	7800		9200	10400	
	Length		mm	3650		4000		4300	4400		4000		4300	4400		4300	4400		4300	4400	
	Height		mm	3400																	
MATERIAL	Casing			FRP																	
	Steel structure			Steel (hot-dip galvanized)																	
	Filler			PVC																	
	Distribution tray			FRP																	
	Cold water basin			FRP																	
	Sump tank			FRP																	
	Fan			Blade : FRP , Hub : Aluminum Cast alloy																	
	Fan stack			FRP																	
FAN ASSEMBLY	Fan	TYPE		Axial-flow																	
		Diameter X Nos.	∅ mm	1400 x 1		1600 x 1		1800 X 1	2000 x 1		1600 x 2		1800 X 1	2000 x 2		1800 X 3	2000 x 3		1800 X 4	2000 x 4	
		Number of blades		4																	
		Fan speed(Approx.)	rpm	470	540	375	420	420	335	370	375	420	420	335	370	420	335	370	420	335	370
	Motor	Drive system		V-belt drive																	
		TYPE		Totally enclosed fan cooled outdoor 3 phase induction motor 4 poles																	
		Power source		380V / 3 / 50Hz																	
		Rated output	Kw	2.2 x 1	3.7 x 1		5.5 x 1			7.5 x 1	3.7 x 2	5.5 x 2			7.5 x 2	5.5 x 3		7.5 x 3	5.5 x 4		7.5 x 4
		Quantity		1							2					3			4		
DISTRIBUTION SYSTEM				Open gravity + redistribution layer																	
PIPING DIMENSION	Hot water inlet pipe		mm	∅100 x 2				∅125 x 2			∅100 x 4		∅125 x 4			∅125 x 6			∅125 x 8		
	Cold water outlet pipe		mm	∅125 x 1		∅150 x 1			∅200 x 1				∅250 x 1			∅200 x 2			∅250 x 2		
	Drain pipe		mm	∅50 x 1		∅ 50 x 1			∅ 50 x 1							∅50 x 2					
	Overflow pipe		mm	∅50 x 1		∅ 50 x 1			∅80 x 1							∅80 x 2					
	Float valve		mm	∅25 x 1					∅40 x 1				∅ 40 x 1			∅40 x 2			∅ 40 x 2		
	Manual make-up		mm	∅25 x 1					∅40 x 1				∅ 40 x 1			∅40 x 2			∅ 40 x 2		
MAKE-UP	Evaporation loss(Approx.)		%	Approx 0.83																	
	Drift loss		%	Less than 0.005																	
WEIGHT	Net weight		kg	970	985	1160	1205	1345	1390	1450	2270	2360	2640	2730	2850	3985	4120	4300	5280	5460	5700
	Operating weight		kg	2475	2490	2975	3020	3450	3750	3810	5455	5545	6400	7000	7120	9850	10755	10935	12800	14005	14245
NOISE LEVEL	Measuring point D=1.13$\sqrt{L \times W}$		dBA	64	65	65	66	66	66	67	67	68	68	69	70	70	71	71	72	73	73

ITEM	MODER			ONE CELL			TWO CELLS				THREE CELLS			FOUR CELLS		FIVE CELLS	
				FC/LN-100	FC/LN-125	FC/LN-150	FC/LN-175	FC/LN-200	FC/LN-250	FC/LN-300	FC/LN-350	FC/LN-400	FC/LN-450	FC/LN-500	FC/LN-600	FC/LN-700	FC/LN-800	FC/LN-900	FC/LN-1000
CAPACITY	27°C WB	circulating water flow rate	m^3/hr	78.0	97.5	117.0	136.5	156.0	195.0	234.0	273.0	312.0	351.0	390.0	468.0	546.0	624.0	702.0	780.0
		make-up water(approx.)	m^3/hr	1.1	1.4	1.7	2.0	2.2	2.8	3.3	3.9	4.5	5.0	5.6	6.7	7.8	8.9	10.0	11.2
	28°C WB	circulating water flow rate	m^3/hr	70	88	105	123	140	175	210	245	280	315	350	420	490	560	630	700
		make-up water(approx.)	m^3/hr	1.0	1.3	1.5	1.8	2.0	2.5	3.0	3.5	4.0	4.5	5.0	6.0	7.0	8.0	9.0	10.0
	Air flow rate(Approx.)		m^3/min	530	680	830	980	1100	1360	1660	1960	2200	2490	2940	3300	3920	4400	4900	5500
	Hot water temperature		°C	37															
	Cold water temperature		°C	32															
OVERALL DIMENSION	Width		mm	2000		2300		2600	4000		4600	5200	6900		7800	9200	10400	11500	13000
	Length		mm	4000		4300		4400	4000		4300	4400	4300		4400	4300	4400	4300	4400
	Height		mm	3700															
MATERIAL	Casing			FRP															
	Steel structure			Steel (hot-dip galvanized)															
	Filler			PVC															
	Distribution tray			FRP															
	Cold water basin			FRP															
	Sump tank			FRP															
	Fan			Blade : FRP , Hub : Aluminum Cast alloy															
	Fan stack			FRP															
FAN ASSEMBLY	Fan	TYPE		Axial-flow															
		Diameter X Nos.	∅ mm	1600 x 1		1800 x 1		2000 x 1	1600 x 2		1800 x 2		2000 x 2	1800 x 3		2000 x 3	1800 x 4	2000 x 4	1800 x 5	2000 x 5
		Number of blades		4															
		Fan speed(Approx.)	rpm	270	340	300	360	310	340	300	360	310	300	360	310	360	310	360	310
	Motor	Drive system		V-belt drive															
		TYPE		Totally enclosed fan cooled outdoor 3 phase induction motor 4 poles															
		Power source		380V / 3 / 50Hz															
		Rated output	Kw	1.5 x 1	2.2 x 1		3.7 x 1		2.2 x 2		3.7 x 2		2.2 x 3	3.7 x 3			3.7 x 4		3.7 x 5
		Quantity		1					2				3				4		5
DISTRIBUTION SYSTEM				Open gravity + redistribution layer															
PIPING DIMENSION	Hot water inlet pipe		mm	∅100 x 2				∅125 x 2	∅100 x 4			∅125 x 4	∅100 x 6		∅125 x 6	∅100 x 8	∅125 x 8		∅125 x 10
	Cold water outlet pipe		mm	∅125 x 1		∅150 x 1			∅200 x 1			∅250 x 1	∅200 x 2				∅250 x 2		∅200 x 3
	Drain pipe		mm	∅50 x 1		∅ 50 x 1			∅50 x 1				∅50 x 2						
	Overflow pipe		mm	∅50 x 1		∅ 50 x 1			∅80 x 1				∅80 x 2						
	Float valve		mm	∅25 x 1					∅40 x 1				∅40 x 2					∅ 40 x 2	
	Manual make-up		mm	∅25 x 1					∅40 x 1				∅40 x 2					∅ 40 x 2	
MAKE-UP	Evaporation loss(Approx.)		%	Approx 0.83															
	Drift loss		%	Less than 0.005															
WEIGHT	Net weight		kg	1080	1120	1240	1260	1530	2230	2450	2470	2880	3700	3800	4550	5000	6050	6100	7550
	Operating weight		kg	2250	2340	2640	2730	3170	4340	4920	5090	5910	7560	7820	9080	10180	11820	12910	14990
NOISE LEVEL	Measuring point D=1.13$\sqrt{L \times W}$		dBA	60	61	62	63	64	65	65	66	66	67	68	68	69	70	71	71

Note: Nominal cooling capacity is based on 131 / min/ RT(1RT=3,900 Kcal /hr) at 37 °C hot water in, 32°C cold water out 27°C ambient wet bulb. The SPLs are measured 1.13$\sqrt{W \times L}$ horizontally away from air intake side of the tower at 1.5m above the foundation level. Pump head of the cooling tower is approximate equal to the height of tower(H). Dimension shown in this catalogue is metric sized and specifications are subject to change without further notice for technical improvement of our products.

Fixed Noise Source
C10a, b, c, d, f, g

Fixed Noise Source
C10e

GUARANTEE:

All components are guaranteed against defective material for a period of one(1) year. When return to RYOWO with transportation prepaid, all parts found by factory inspection to be defective will be repaired or replaced without charge, FOB Hong Kong or FOB ShenZhen, PRC. No liability will be assumed for loss or damage resulting form misuse of our products.

Appendix 7-1 Proposed Overall Noise Mitigation Measures Schedule

Proposed Overall Noise Mitigation Measures Schedule

Tower 1

Tower	NSR	Room	Floor	Noise Mitigation Measures
1	N1-01	BR	3/F-31/F	Fixed Glazing with or without Maintenance Window
	N1-02	BR	-	1.2m Full Height Vertical Acoustic Fin with Sound Absorptive Material
			4/F-13/F	Acoustic Window (Baffle Type)
	N1-03	BR	5/F-11/F	Acoustic Window (Baffle Type)
	N1-04	LIV/DIN	7/F-9/F	Enhanced Acoustic Balcony (Baffle Type)
	N1-44	BR	-	1.6m Full Height Vertical Acoustic Fin with Sound Absorptive Material

Proposed Overall Noise Mitigation Measures Schedule

Tower 2

Tower	NSR	Room	Floor	Noise Mitigation Measures
2	N2-42	BR	3/F-26/F	Acoustic Window (Baffle Type)
	N2-43	BR	3/F-26/F	Fixed Glazing with or without Maintenance Window
	N2-44	BR	3/F-29/F	Acoustic Window (Baffle Type)
	N2-45	BR	3/F-29/F	Fixed Glazing with or without Maintenance Window
	N2-46	BR	3/F-30/F	Acoustic Window (Baffle Type)
	N2-47	BR	3/F-30/F	Fixed Glazing with or without Maintenance Window
	N2-48	LIV/DIN	3/F-30/F	Enhanced Acoustic Balcony (Baffle Type)
	N2-49	LIV/DIN	4/F-30/F	Enhanced Acoustic Balcony (Baffle Type)
	N2-50	BR	3/F-30/F	Fixed Glazing with or without Maintenance Window
	N2-51	BR	4/F-30/F	Acoustic Window (Baffle Type)
	N2-52	BR	4/F-30/F	Acoustic Window (Baffle Type)
	N2-53	BR	4/F-27/F	Acoustic Window (Baffle Type)
	N2-54	BR	5/F-19/F	Acoustic Window (Baffle Type)
	N2-55	BR	3/F-30/F	Fixed Glazing with or without Maintenance Window
	N2-56	LIV/DIN	3/F-30/F	Enhanced Acoustic Balcony (Baffle Type)
	N2-57	LIV/DIN	3/F-30/F	Enhanced Acoustic Balcony (Baffle Type)
			-	1.6m Full Height Vertical Acoustic Fin with Sound Absorptive Material
	N2-58	BR	3/F-30/F	Fixed Glazing with or without Maintenance Window
	N2-59	BR	4/F-21/F	Acoustic Window (Baffle Type)
	N2-60	BR	4/F-25/F	Acoustic Window (Baffle Type)
	N2-61	BR	5/F-10/F	Acoustic Window (Baffle Type)
	N2-62	BR	5/F-12/F	Acoustic Window (Baffle Type)
	N2-63	BR	3/F-30/F	Fixed Glazing with or without Maintenance Window
	N2-64	LIV/DIN	3/F-30/F	Enhanced Acoustic Balcony (Baffle Type)
			-	1.6m Full Height Vertical Acoustic Fin with Sound Absorptive Material
	N2-65	LIV/DIN	3/F-30/F	Enhanced Acoustic Balcony (Baffle Type)
			-	1.7m Full Height Vertical Acoustic Fin with Sound Absorptive Material
	N2-66	BR	3/F-30/F	Fixed Glazing with or without Maintenance Window
	N2-67	BR	4/F-30/F	Acoustic Window (Baffle Type)

	N2-68	BR	4/F-30/F	Acoustic Window (Baffle Type)
			-	1.3m Full Height Vertical Acoustic Fin with Sound Absorptive Material
	N2-69	LIV/DIN	4/F-30/F	Enhanced Acoustic Balcony (Baffle Type)
	N2-70	BR	-	1.9m Full Height Vertical Acoustic Fin with Sound Absorptive Material
			3/F-30/F	Fixed Glazing with or without Maintenance Window
	N2-71	BR	4/F-26/F	Acoustic Window (Baffle Type)
	N2-72	BR	4/F-28/F	Acoustic Window (Baffle Type)
	N2-73	LIV/DIN	4/F-21/F	Enhanced Acoustic Balcony (Baffle Type)
	N2-74	BR	4/F-21/F	Acoustic Window (Baffle Type)
	N2-75	BR	3/F-29/F	Acoustic Window (Baffle Type)
			-	1.7m Full Height Vertical Acoustic Fin with Sound Absorptive Material
	N2-76	BR	3/F-29/F	Fixed Glazing with or without Maintenance Window
	N2-77	BR	-	1.6m Full Height Vertical Acoustic Fin with Sound Absorptive Material
			3/F-29/F	Acoustic Window (Baffle Type)
	N2-79	LIV/DIN	3/F-29/F	Door with Auto-Closing Mechanism
	N2-80	BR	3/F-29/F	Fixed Glazing with or without Maintenance Window
			-	1.0m Full Height Vertical Acoustic Fin with Sound Absorptive Material
	N2-81	BR	4/F-11/F	Acoustic Window (Baffle Type)
	N2-82	BR	4/F-14/F	Acoustic Window (Baffle Type)
	N2-83	BR	-	1.0m Full Height Vertical Acoustic Fin with Sound Absorptive Material
			3/F-29/F	Fixed Glazing with or without Maintenance Window
	N2-84	LIV/DIN	3/F-29/F	Door with Auto-Closing Mechanism
	N2-85	LIV/DIN	4/F-16/F	Acoustic Window (Baffle Type)
	-	-	-	1.0m Full Height Vertical Acoustic Fin with Sound Absorptive Material

Remark:
Please refer to **Figure 7.1** for the location of Sound Absorptive Materials on the building façade and Noise Barrier (Top Height: 39.3mPD).
Refuge Floor at 16/F.

Appendix V

Sewerage Impact Assessment

Prepared for

Star Success International Limited

Prepared by

Ramboll Hong Kong Limited

REDEVELOPMENT OF LAI SUN YUEN LONG CENTRE AT NOS. 21-35 WANG YIP STREET EAST, YLTL 362

SEWERAGE IMPACT ASSESSMENT

Date	**July 2026**
Prepared by	**Miko WAN** **Environmental Consultant**
Signed	
Approved by	**Calvin CHIU** **Technical Director**
Signed	
Project Reference	**GYULSYLCEI00**
Document No.	**R10093_v1.1.docx**

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Appendix 1.1 Master Layout Plan, Floor Plans and Sections of the Proposed Development
Appendix 2.1 Detailed Sewerage Impact Assessment Calculations
Appendix 2.2 Drainage Layout of One Regent Place and Twin Regency

1. INTRODUCTION

1.1 Background

1.1.1 A residential development (the Proposed Development) has been proposed by Star Success International Limited (the project proponent) at Nos. 21-35 Wang Yip Street East, YLTL 362 (the Application Site). A rezoning application (no. Y/YL/16) to rezone the application site from "Other Specified Uses" (BUSINESS) under Yuen Long Outline Zoning Plan (OZP) (No. S/YL/25) to "Residential (Group E)2" was submitted to the Town Planning Board (TPB) for consideration. An environmental assessment (EA) report was prepared by Ramboll Hong Kong Limited based on a development scheme (comprising 2 residential towers and a clubhouse-cum-shop building) as one of the technical supporting documents (hereafter referred as EA1). According to the letter (Ref.: TPB/Y/YL/16) from TPB dated 10 Sep 2021, the application has been agreed.

1.1.2 Subsequent to the approved EA1 report, the development scheme has been finetuned with local revision of internal layout, relaxation on building height and inclusion of indoor area for social welfare purpose below residential towers while building disposition and shape are similar to the previous scheme. Due to the changes in the latest development scheme, the EA report (hereafter referred as EA2) is updated accordingly and was considered acceptable according to letter (Ref.: TPB/A/YL/304) from TPB dated 12 Jan 2024.

1.1.3 Recently, the development scheme adopted has been further finetuned. While the block disposition, orientation, shape, etc. are generally the same as before, the detailed layout has been revised. In addition, more number of storeys is now introduced with increased building height, number of flat units, etc. The clubhouse block design is also finetuned. Based on the latest schedule, the tentative completion year would also be shifted. A summary table comparing key design parameters, sewage flow and the discharge manholes based on the Approved SIA (Application no. A/YL/304) and current scheme is shown as **Table 1.1**.

Table 1.1 Summary Table for the Approved SIA and Current Scheme

	Approved SIA (Application no. A/YL/304)	Current Scheme
Residential flats	1019	1068
Clubhouse area	1963 m^2	1963 m^2
Commercial area	1600 m^2	1600 m^2
Social Welfare area	1779.3 m^2	422 m^2
ADWF	877.6 m^3/day	844.2 m^3/day
Discharge Manhole	FMH1008777	FMH1008777

1.1.4 Ramboll Hong Kong Limited is commissioned by the project proponent to conduct a Sewerage Impact Assessment (SIA) to support the planning application.

1.1.5 The design of master layout plan (MLP) and other technical information on the Proposed Development are provided by the Project Architect (DLN Architects Limited).

1.2 The Application Site and Its Environs

1.2.1 The Application Site is approximately 7,271m^2 and currently occupied by the Lai Sun Yuen Long Centre, which is an industrial building. Major carriageways surrounding the Application Site include Wang Yip Street East (west), Keung Yip Street (north), Po Yip Street (east), Long Yip Street & Yuen Long On Lok Road (south).

1.2.2 **Figure 1.1** shows the location of the Application Site and its environment.

1.3 The Proposed Development

1.3.1 The Proposed Development will consist of 2 residential towers, 3 storeys of clubhouse cum shop building, a non-residential G/IC facility and carpark.

1.3.2 There will be altogether 1,068 flats, clubhouse of 1,963m^2, commercial area of 1,600m^2 (800m^2 for retail and 800m^2 for F&B assumed), and G/IC of 422m^2. The G/IC is an office dedicated for a team of home care services for frail elderly persons.

1.3.3 The tentative occupation year is 2030.

1.3.4 The MLP, floor plans and sections of the Proposed Development are shown in **Appendix 1.1**.

2. SEWERAGE IMPACT ASSESSMENT

2.1 Scope of Work

2.1.1 The aim of this sewerage impact assessment (SIA) is to assess whether the capacity of the existing sewerage network serving the Application Site is sufficient to cope with the sewage flow from the proposed development. Drainage Record Plans from Drainage Services Department (DSD) were obtained for the purposes of this SIA.

2.1.2 In addition, the SIA Report (Report Ref.: R7298_V1.2 dated June 2020) for the proposed residential development at Yuen Long Town Lot 461 to discharge planning approval condition for the approved S16 application (No. A/YL/257) prepared by Ramboll Hong Kong Limited (SIA-R7298) has been referred to estimate cumulative sewerage impact.

2.2 Assessment Criteria and Methodology

2.2.1 Environmental Protection Department's (EPD's) Guidelines for Estimating Sewage Flows for Sewage Infrastructure Planning, Version 1 (GESF) has been referred to for the purposes of estimating the quantity of the sewage generated from the proposed development and the existing catchment area. Sewage flow parameters and global peaking factors in this document have been adopted for this SIA.

2.2.2 Based on the building types in the area, the following unit flow factors are used in the SIA calculation:

- Residents: 0.27 m^3/person/day (Private R2)
- Clubhouse Staff: 0.28 m^3/employee/day (J11 - Community, Social & Personal Services)
- Commercial Area (Retail) Employee: 0.28 m^3/employee/day (J4 - Wholesale & Retail)
- Commercial Area (F&B) Employee: 1.58 m^3/employee/day (J10 - Restaurants & Hotels)
- Social Services Staff: 0.28 m^3/employee/day (J11 – Community, Social and Personal Services)

2.2.3 The catchment inflow factor, PCIF of 1.00 (Yuen Long), is adopted in catchment calculations.

2.3 Existing and Future Sewerage System

2.3.1 According to the Drainage Record Plans obtained from DSD, there is a Ø750mm sewer running along Wang Yip Street East serving the Application Site. The existing sewers in the vicinity of the Application Site are shown in **Figure 2.1**.

2.3.2 The Ø750mm sewer flows from Wang Yip Street East south-westwards to Wang Yip Street South and collects sewage from upstream catchments (Catchment A) and downstream catchments (Catchment B & C). The concerned catchment areas are shown in **Figure 2.2**.

2.4 Wastewater Generated by the Proposed Development

2.4.1 The Application Site is previously occupied by an industrial building. The estimated wastewater discharge is about 181.7 m^3/day (i.e. peak flow 16.8 litre/sec) (see **Appendix 2.1**).

2.4.2 After redevelopment, wastewater will be primarily contributed by the residents, clubhouse staff and commercial area/social welfare facility employee.

2.4.3 Detailed calculation for the proposed development is given in **Table 2.1** below.

Table 2.1 Estimated Peak Flow

Development Parameters	Proposed Development					
	Residential Units	**Clubhouse**	**Commercial Area (Retail)**	**Commercial Area (F&B)**	**Social Welfare Facility**	**Swimming Pool**
Area (m^3)	-	1,963	800	800	422	-
Number of Residential Units	1,068	-	-	-	-	-
Average Household Size	2.6(1)	-	-	-	-	-
Assumed Population	2,777	65	28	41	14	-
Design Flow (m^3/person/day)	0.27(2)	0.28(3)	0.28(4)	1.58(5)	0.28(6)	-
Flow Rate (m^3/day)	**749.8**	**18.2**	**7.8**	**64.5**	**3.9**	-
Flow Rate (L/S)	-	-	-	-	-	**16.0**
Total Flow Rate (m^3/day)	**844.2**					
Peak Flow (L/s)	**58.6**					
Peak Flow with backwash from swimming pool (L/s)	**74.7**					

Remarks:

(1) 2021 Population Census - Average Household Size of Yuen Long Tung Tau District

(2) Refer to Table T-1 of GESF - Private R2

(3) Refer to Table T-2 of GESF - J11

(4) Refer to Table T-2 of GESF – J4

(5) Refer to Table T-2 of GESF – J10

(6) Refer to Table T-2 of GESF – J11

2.5 Assessment of Sewerage Impact

2.5.1 The Application Site will be constructed to have a new Ø300mm sewer connecting from terminal manhole onsite to the existing public manhole S1 (manhole ref. no. FMH1008777) tentatively. As shown in **Figure 2.1**, the new manhole and sewer will be constructed to allow gravity flow. The invert levels of the sewers presented in **Figure 2.1** are preliminary and indicative only, further details of the alignment of the sewers will be provided in a later stage.

2.5.2 **Appendix 2.1** shows the detailed calculation on the estimated hydraulic capacity of the existing sewer sections and the calculation of the amount of the sewage entering each segment of the said sewer network.

2.5.3 Cumulative flow, including both upstream and downstream catchments (**Figure 2.2**) are assessed in the calculations. SIA-R7298 has been referred regarding the cumulative flow estimation.

2.6 Discussion

2.6.1 The potential sewerage impact due to the proposed development has been quantitatively addressed. Sewage generation rate from the proposed development is estimated to be 844.2 m^3/day (i.e. peak flow with backwash from swimming pool 74.7 litre/sec).

2.6.2 A proposed sewer T1-S1 will be constructed by the applicant to connect the proposed development to existing sewer system. After calculating the appropriate capacities as mentioned above, the estimated sewage flow from the Application Site has been compared with the capacity of the existing and proposed sewerage system to determine whether it has adequate spare capacity to accommodate the flow from the proposed development and existing catchment areas.

2.6.3 Table 4 of **Appendix 2.1** shows the sewage generation rate from the proposed development and surrounding catchment areas. The proposed and existing sewers are found to have adequate capacity.

2.6.4 Hence, no adverse sewerage impact is anticipated from the proposed development to the public sewerage network.

2.7 Conclusion

2.7.1 The potential sewerage impact has been quantitatively addressed. Based on the sewerage impact assessment results, it is found that the capacity of the existing and proposed sewerage system serving the area is sufficient to cater for the sewage generation from the proposed development and nearby catchment areas.

2.7.2 This SIA confirms the feasibility of the proposed development in terms of impacts to the public sewerage system.

3. OVERALL SUMMARY

3.1.1 A residential redevelopment is proposed at Nos. 21-35 Wang Yip Street East. The potential sewerage impacts have been evaluated.

3.1.2 Sewage generated from the Proposed Development will be discharged and connected to the existing manhole nos.: FMH1008777 (S1) via new Ø300mm sewerage pipeline.

3.1.3 Based on the sewerage impact assessment results, it is found that the capacity of the existing and proposed sewerage system serving the area would be sufficient to cater for sewage generated from the Proposed Development and cumulative impact by accounting nearby catchment areas.

3.1.4 With the proposed work in place, the hydraulic capacity will be adequate to receive cumulative sewage discharge. This assessment confirms the feasibility of the Proposed Development in terms of impact on the public drainage and sewerage system.

Figure

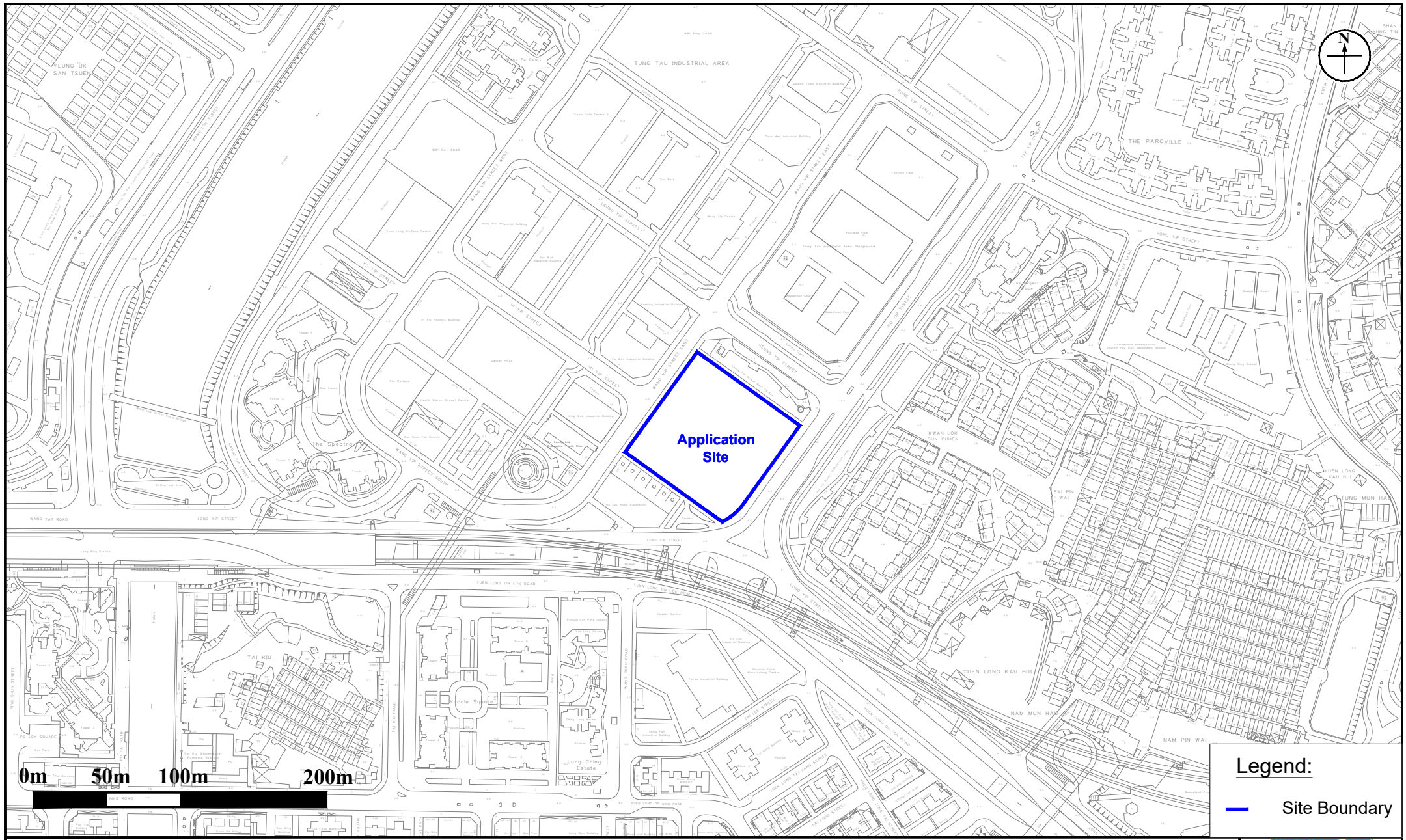

Figure: 1.1	RAMBOLL
Title: Location of the Application Site and Its Environs	Drawn by: CM
	Checked by: CC
Project: Redevelopment of Lai Sun Yuen Long Centre at Nos. 21-35 Wang Yip Street East, YLTL 362	Rev.: 2.0
	Date: Mar 2023

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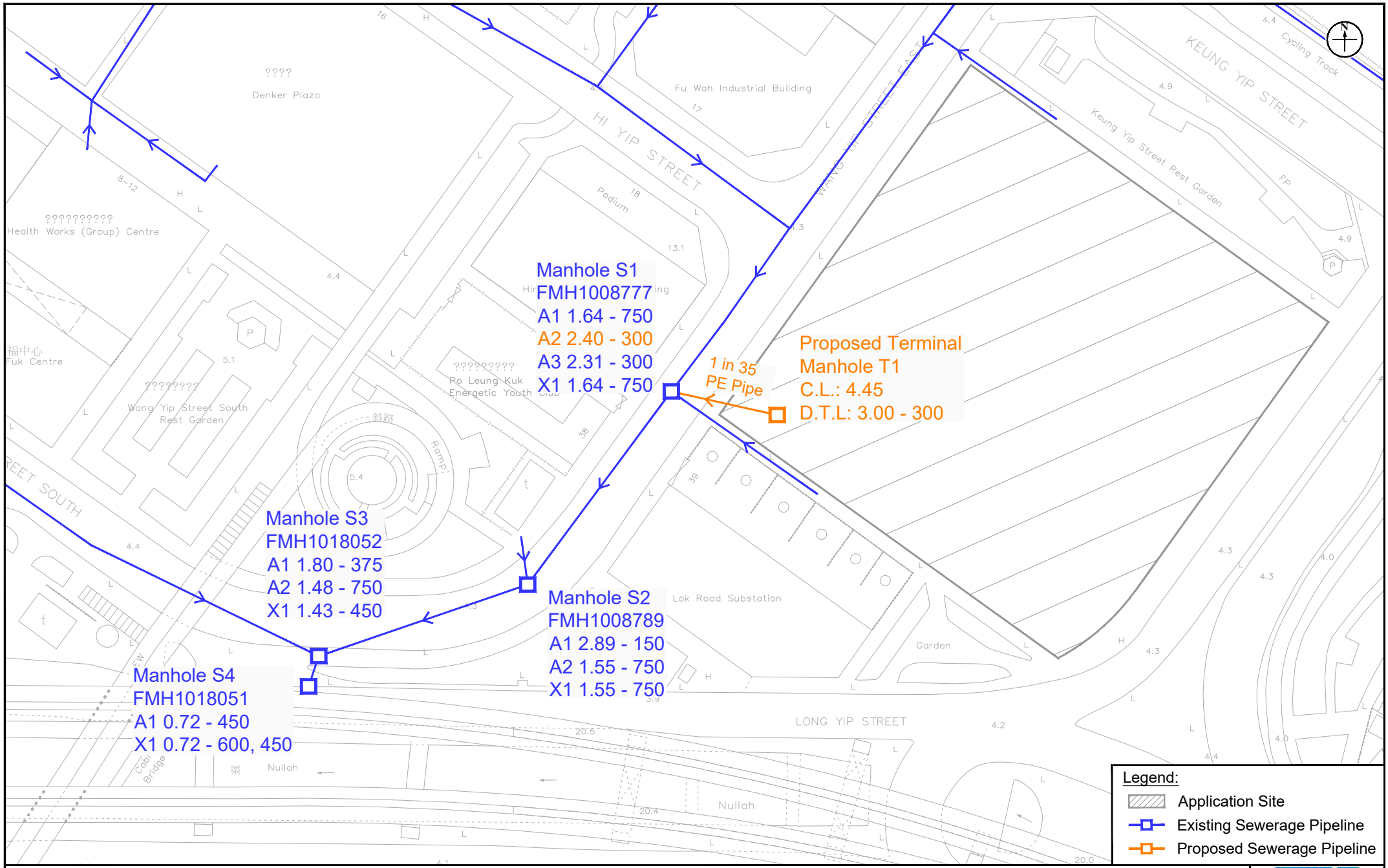

Figure: 2.1

Title: Existing and Proposed Sewerage System in the Vicinity of the Application Site

Project: Redevelopment of Lai Sun Yuen Long Centre at Nos. 21-35 Wang Yip Street East, YLTL 362

RAMBOLL

Drawn by:	MW
Checked by:	CC
Rev.:	1.1
Date:	Jul 2026

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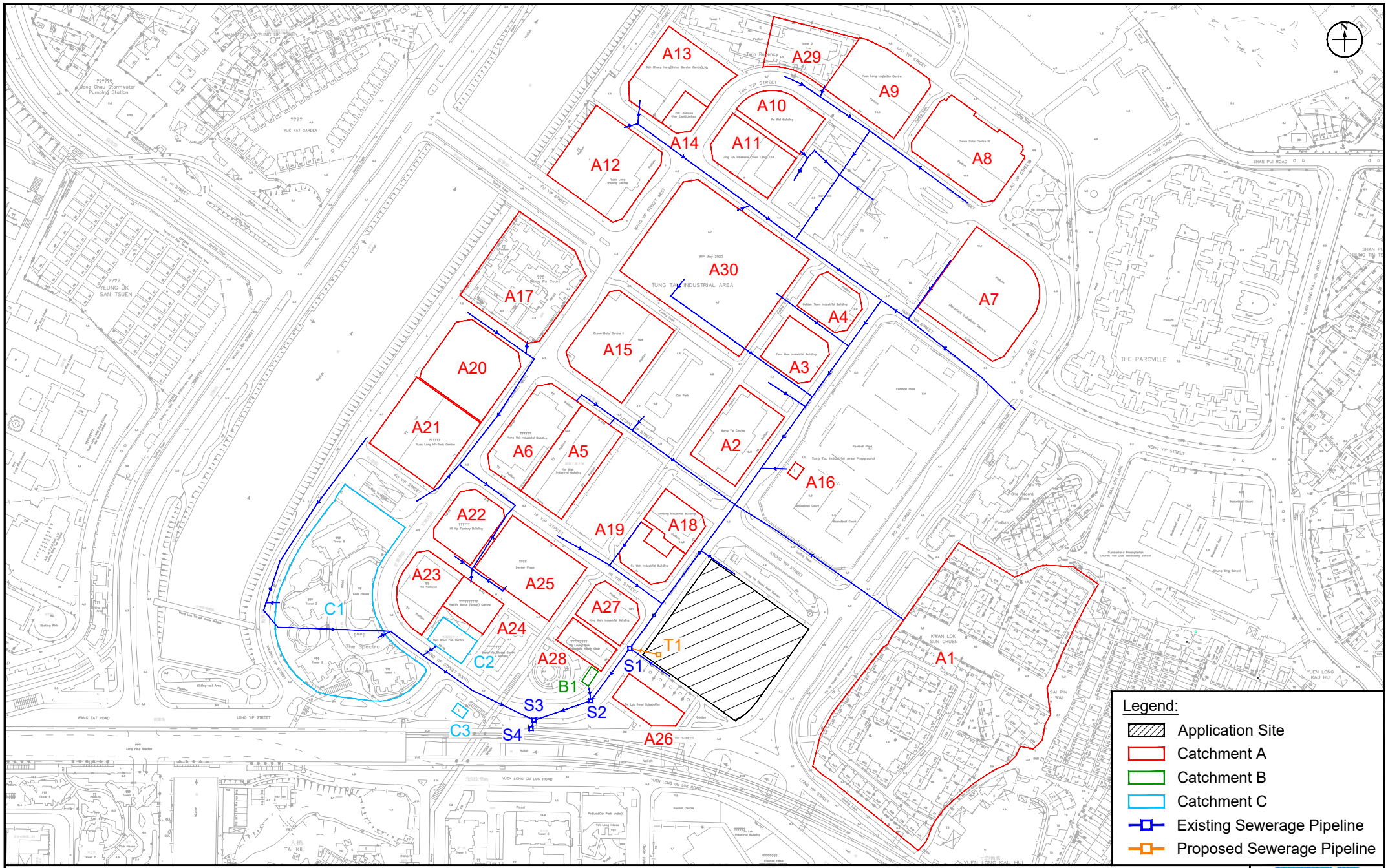

Figure: 2.2

Title: Existing Sewerage System and Catchment Area in the Vicinity of the Application Site

Project: Redevelopment of Lai Sun Yuen Long Centre at Nos. 21-35 Wang Yip Street East, YLTL 362

RAMBOLL

Drawn by:	MW
Checked by:	CC
Rev.:	1.0
Date:	Apr 2026

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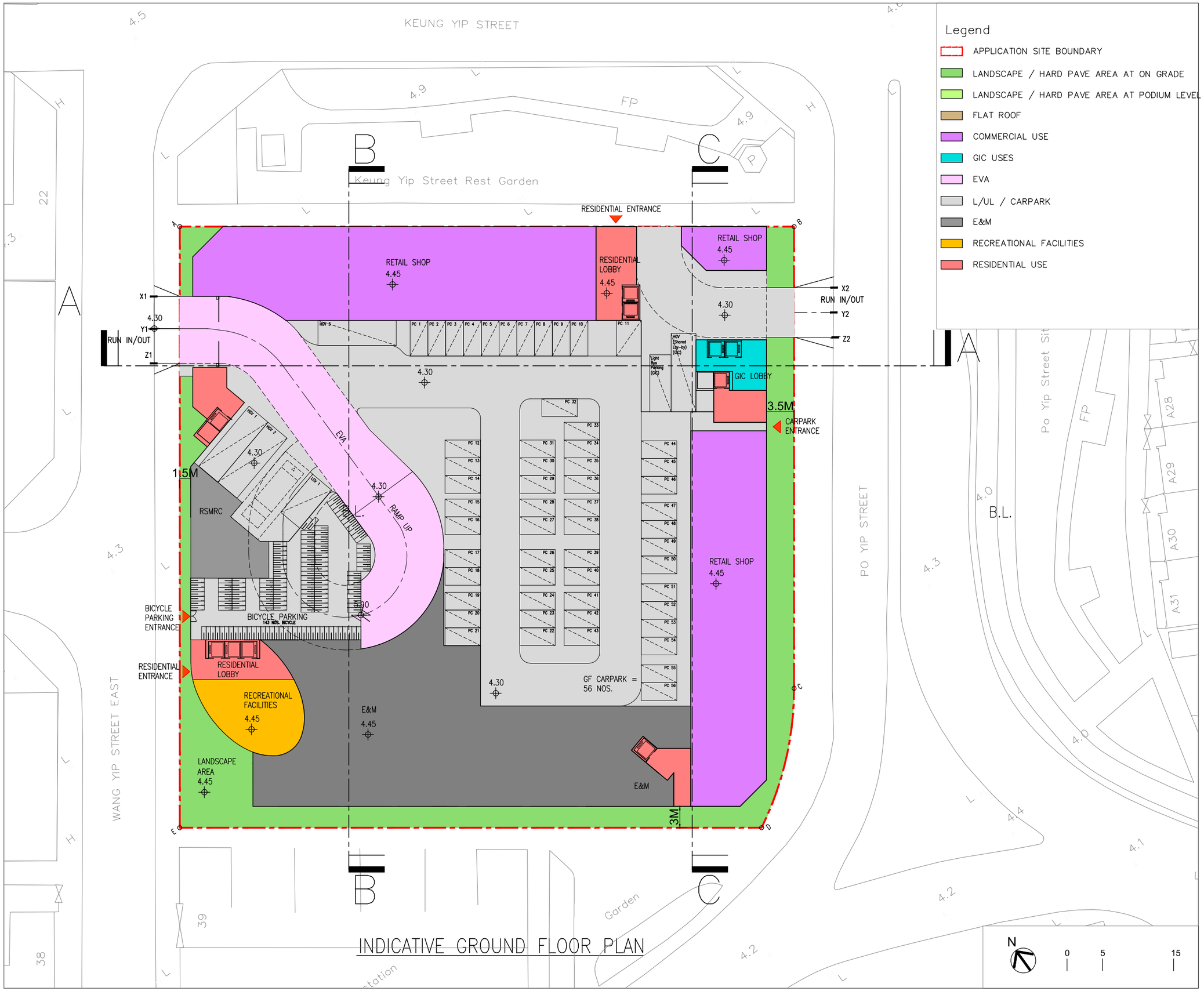
Appendix 1.1 Master Layout Plan, Floor Plans and Sections of the Proposed Development



Legend

- APPLICATION SITE BOUNDARY
- LANDSCAPE / HARD PAVE AREA AT ON GRADE
- LANDSCAPE / HARD PAVE AREA AT PODIUM LEVEL
- FLAT ROOF
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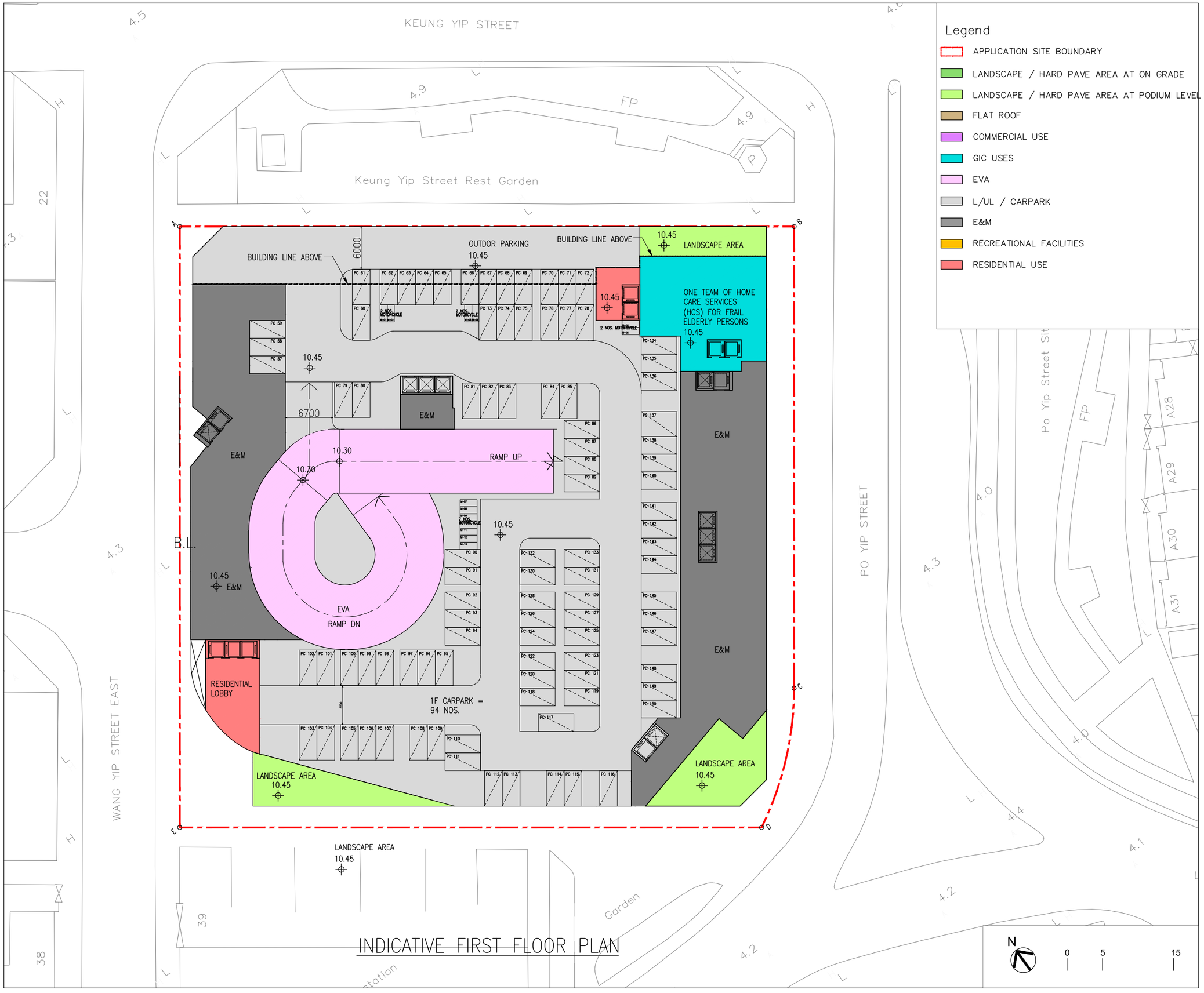

INDICATIVE FIRST FLOOR PLAN

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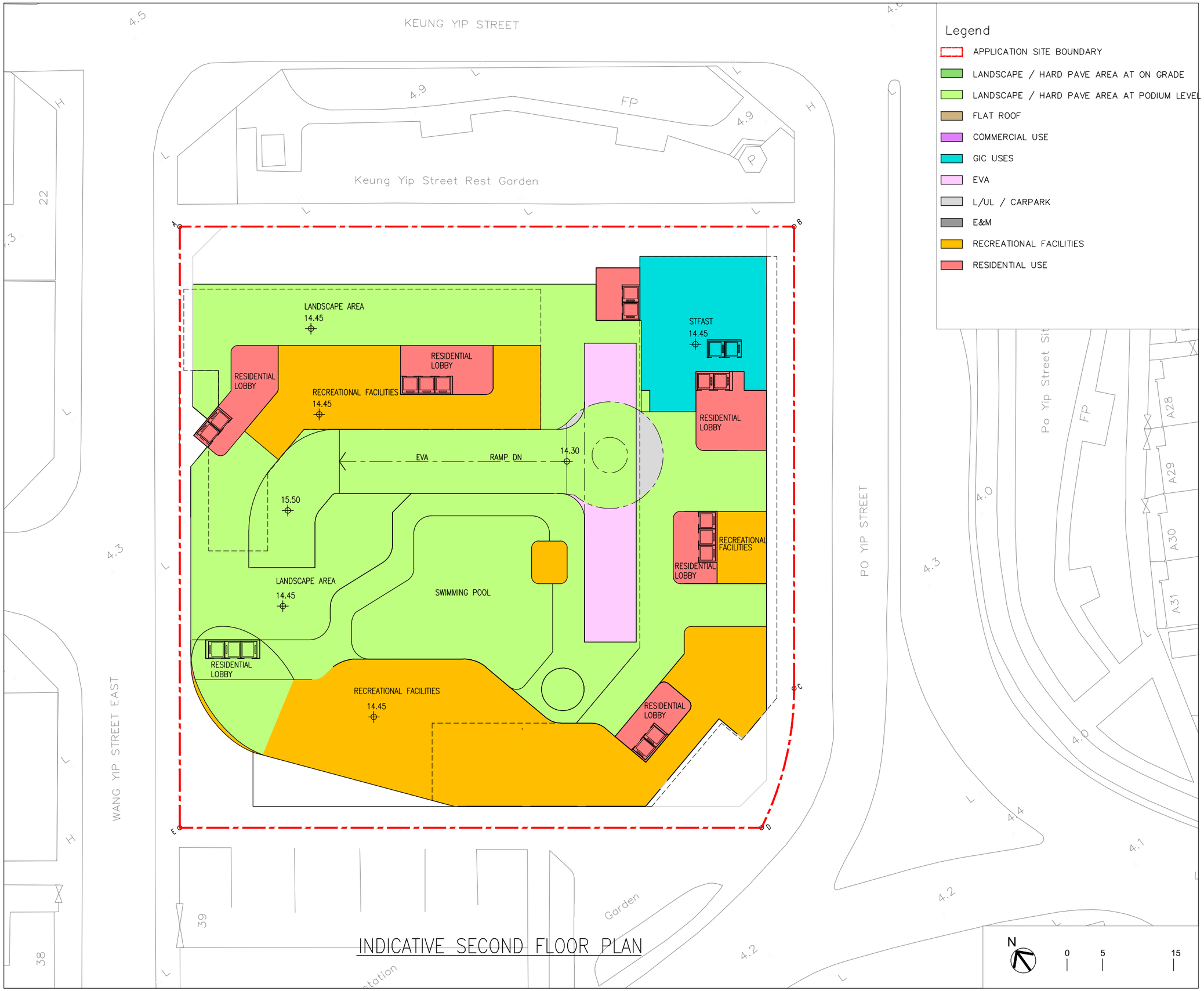

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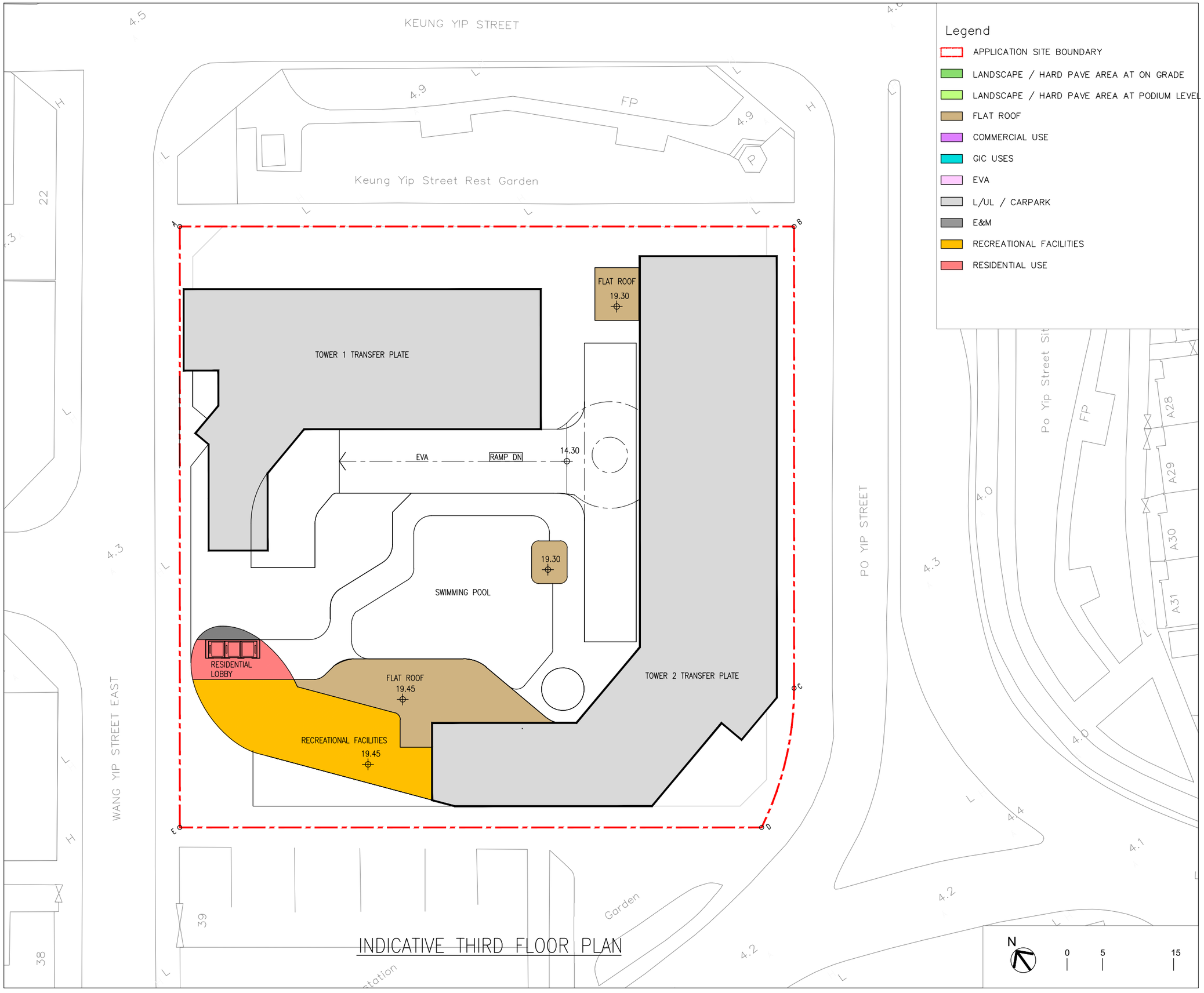

INDICATIVE THIRD FLOOR PLAN

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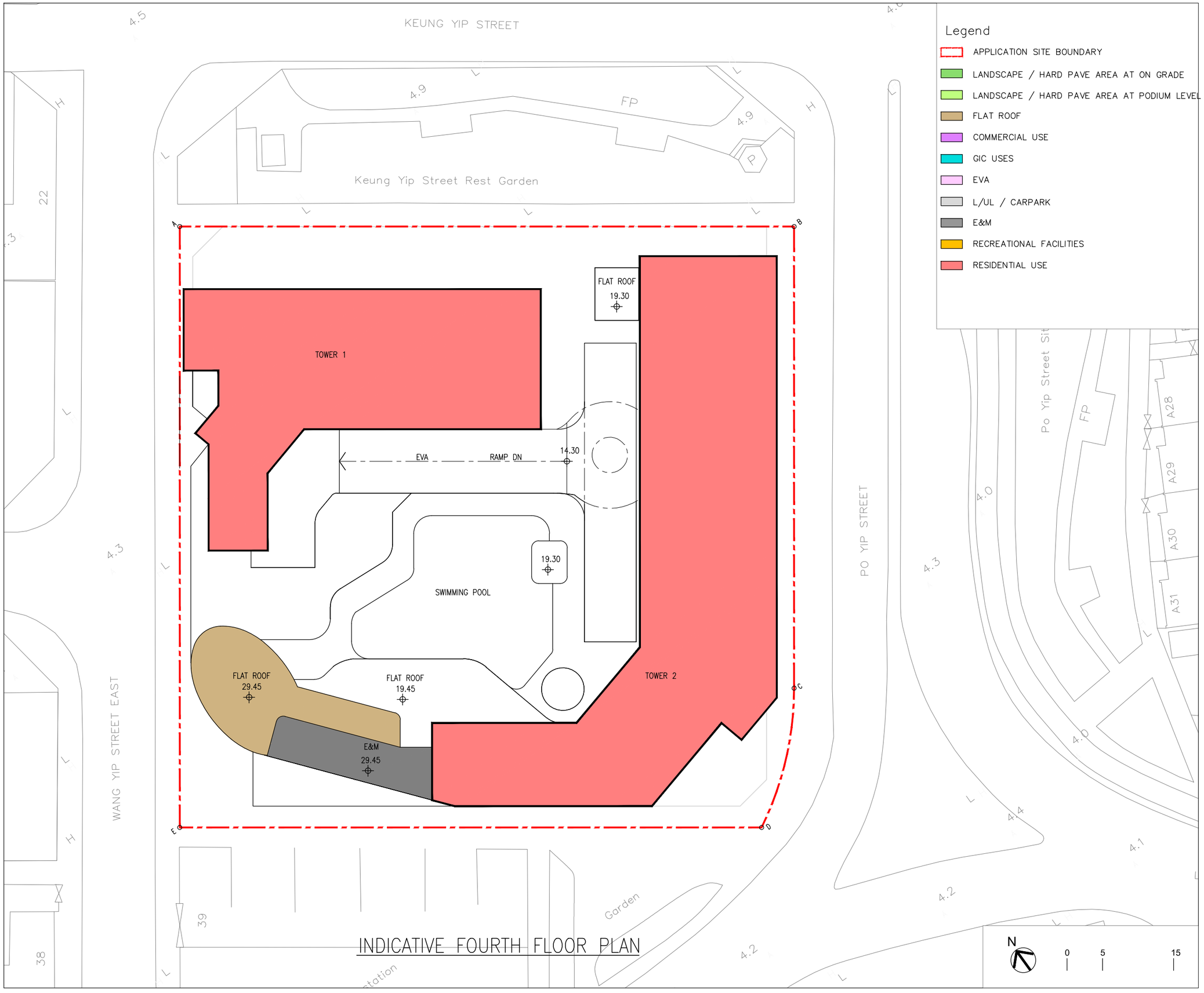

INDICATIVE FOURTH FLOOR PLAN

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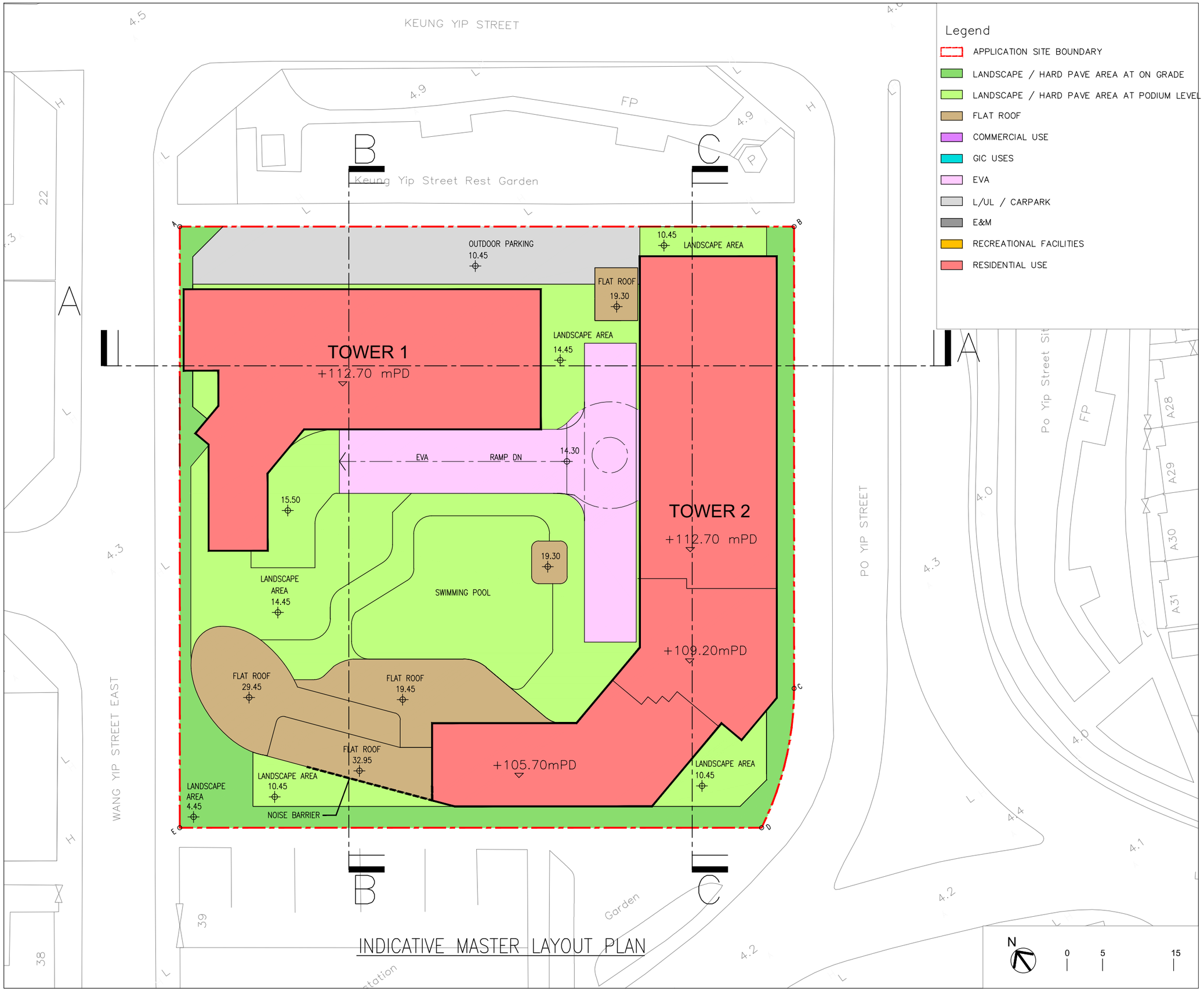

INDICATIVE MASTER LAYOUT PLAN

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Appendix 2.1 Detailed Sewerage Impact Assessment Calculations

Table 1a Calculation for Sewage Generation Rate of the Existing Building at the Subject Site

1. Lai Sun Yuen Long Centre

1a. Assumed Area (Warehouse)	=	35739	m^2 (GFA)
1b. Assumed floor area per employee	=	250.0	m^2 per employee -- (refer to Table 8 of CIFSUS - Storage)
1c. Total number of employees	=	143	employees
1d. Design flow for commercial employee	=	0.18	m^3/person/day -- (refer to Table T-2 of GESF - J3)
1e. Sewage Generation rate	=	**25.7**	m^3/day
1f. Assumed Area (Manufacturing)	=	3249	m^2 (GFA)
1g. Assumed floor area per employee	=	43.5	m^2 per employee -- (refer to Table 8 of CIFSUS - Manufacturing)
1h. Total number of employees	=	75	employees
1i. Design flow for industrial employee	=	2.08	m^3/person/day -- (refer to Table T-3 of GESF - J1 Yuen Long)
1j. Sewage Generation rate	=	**156.0**	m^3/day
Total flow	=	181.7	m^3/day
Contributing Population	=	674	people
Peaking factor	=	8	Refer to Table T-5 of GESF for population 5,000-10,000 incl. stormwater allowance
Peak Flow	=	**16.8**	litre/sec

Table 1b Calculation for Sewage Generation Rate of the Proposed Development at the Subject Site

1. Residential Tower

1a. Total number of residential units	=	1068	units
1b. Total number of residents	=	2777	people -- (2021 Population Census: Yuen Long Tung Tau District Average Household Size of 2.6)
1c. Design flow	=	0.27	m^3/person/day -- (Private R2 in Table T-1 of GESF)
1d. Sewage Generation rate	=	**749.8**	m^3/day

2. Clubhouse

2a. Assumed Area	=	1963	m^2 (GFA)
2b. Assumed floor area per employee	=	30.3	m^2 per worker -- (refer to Table 8 of CIFSUS - Community, Social & Personal Services)
2c. Total number of employees	=	65	employees
2d. Design flow for commercial activities	=	0.28	m^3/employee/day -- (refer to Table T-2 of GESF - J11)
2e. Sewage Generation rate	=	**18.2**	m^3/day

3. Commercial Area (Retail)

3a. Assumed Area	=	800	m^2 (GFA)
3b. Assumed floor area per employee	=	28.6	m^2 per worker -- (refer to Table 8 of CIFSUS - Retail Trade)
3c. Total number of employees	=	28	employees
3d. Design flow for commercial activities	=	0.28	m^3/employee/day -- (refer to Table T-2 of GESF - J4)
3e. Sewage Generation rate	=	**7.8**	m^3/day

4. Commercial Area (F&B)

4a. Assumed Area	=	800	m^2 (GFA)
4b. Assumed floor area per employee	=	19.6	m^2 per worker -- (refer to Table 8 of CIFSUS - Restaurants)
4c. Total number of employees	=	41	employees
4d. Design flow for commercial activities	=	1.58	m^3/employee/day -- (refer to Table T-2 of GESF - J10)
4e. Sewage Generation rate	=	**64.5**	m^3/day

5. Social Welfare Facility

5a. Assumed Area	=	422	m^2 (GFA)
5b. Assumed floor area per employee	=	30.3	m^2 per worker -- (refer to Table 8 of CIFSUS - Community, Social & Personal Services)
5c. Total number of employees	=	14	employees
5d. Design flow for commercial activities	=	0.28	m^3/employee/day -- (refer to Table T-2 of GESF - J11)
5e. Sewage Generation rate	=	**3.9**	m^3/day

6. Swimming Pool

Assumed Area of Swimming Pool	=	462	m^2
Average Depth of Water	=	1.25	m (ordinary assumption)
Volume of Swimming Pool (Ordinary Assumption)	=	577.5	m^3
Turnover Rate	=	6	hr
Required Surface Loading Rate of Filter	=	96	$m^3/m^2/hr$
Filter Areas required	=	1.0	m^2
Adopted Surface Loading Rate of Filter	=	50	$m^3/m^2/hr$
Adopted Filter Area	=	1.9	m^2
Backwash Duration	=	7	min/d
Backwash flow rate	=	30	$m^3/m^2/hr$
Average Daily Flow Rate for Swimming Pool Backwashing	=	6.7	m^3/day
Flowrate for Swimming Pool Backwashing in 7 mins	=	**16.0**	litre/sec

Total Flow from Proposed Development

Flow Rate	=	844.2	m^3/day
Contributing Population	=	3127	people
Peaking factor	=	6	Refer to Table T-5 of GESF for population 1,000-5,000 incl. stormwater allowance
Peak Flow	=	**58.6**	litre/sec
Peak Flow with backwash from swimming pool	=	**74.7**	litre/sec

Table 2a Hydraulic Capacity of Existing Sewers at Wang Yip Street East, Yuen Long

Segment	Manhole Reference	Manhole Reference	Pipe Dia.	Pipe Length	Invert Level 1	Invert Level 2	g	k_s	s	v	V	Area	Q	Estimated Capacity
			mm	m	mPD	mPD	m/s^2	m		m^2/s	m/s	m^2	m^3/s	L/s
S1-S2	FMH1008777	FMH1008789	750	47.2	1.64	1.55	9.81	0.0030	0.002	0.000001	0.99	0.44	0.44	438
S2-S3	FMH1008789	FMH1018052	750	43.3	1.55	1.48	9.81	0.0030	0.002	0.000001	0.91	0.44	0.40	403
S3-S4	FMH1018052	FMH1018051	450	6.3	1.43	0.72	9.81	0.0006	0.112	0.000001	6.83	0.16	1.09	1086

Table 2b Hydraulic Capacity of Proposed Sewers at Wang Yip Street East, Yuen Long

Segment	Manhole Reference	Manhole Reference	Pipe Dia.	Pipe Length	Invert Level 1	Invert Level 2	g	k_s	s	v	V	Area	Q	Estimated Capacity
			mm	m	mPD	mPD	m/s^2	m		m^2/s	m/s	m^2	m^3/s	L/s
T1-S1	-	FMH1008777	300	21.3	3.00	2.40	9.81	0.0003	0.028	0.000001	2.88	0.07	0.20	204

Remarks: (1) g=gravitational acceleration; k_s=equivalent sand roughness; s=gradient; v=kinematic viscosity of water; V=mean velocity

(2) Table 2a: The value of k_s = 3mm is used for the calculation of slimed concrete sewer, poor condition (based on Table 5: Recommended roughness values in Sewerage Manual)

(3) Table 2a: The value of k_s = 0.6mm is used for the calculation of slimed clayware sewer, poor condition (based on Table 5: Recommended roughness values in Sewerage Manual)

(4) Table 2b: The value of k_s = 0.3mm is used for the calculation of slimed polyethelyene for the proposed sewers, poor condition (based on Table 5: Recommended roughness values in Sewerage Manual)

(5) The value of ks is interpolated for pipe velocities between 0.75 m/s and 1.2 m/s

(6) The value of velocity (V) is referred to the Tables for the hydraulic design of pipes, sewers and channels (8th edition)

(7) Equation used: $V=-\sqrt{(8gDs)}\log\left(\frac{k_s}{3.7D}+\frac{2.51v}{D\sqrt{(2gDs)}}\right)$

Table 3 Calculation for Sewage Generation Rate of the Existing Surrounding Building

Catchment A (S1)

1. Kwan Lok Sun Chuen

1a. Total number of units	=	350	units -- (2021 Population Census: Subunit 524/40)
1b. Total number of residents	=	980	people -- (2021 Population Census: Yuen Long DC Average Household Size of 2.8)
1c. Design flow	=	0.27	m^3/person/day -- (Private R2 in Table T-1 of GESF)
1d. Sewage Generation rate	=	**264.6**	m^3/day

2. Wang Yip Centre

2a. Assumed Area (Warehouse)	=	9855	m^2 (GFA)
2b. Assumed floor area per employee	=	250.0	m^2 per employee -- (refer to Table 8 of CIFSUS - Storage)
2c. Total number of employees	=	40	employees
2d. Design flow for commercial employee	=	0.18	m^3/person/day -- (refer to Table T-3 of GESF - J3)
2e. Sewage Generation rate	=	**7.2**	m^3/day
2f. Assumed Area (Manufacturing)	=	1408	m^2 (GFA)
2g. Assumed floor area per employee	=	43.5	m^2 per employee -- (refer to Table 8 of CIFSUS - Manufacturing)
2h. Total number of employees	=	33	employees
2i. Design flow for industrial employee	=	2.08	m^3/person/day -- (refer to Table T-3 of GESF - J1 Yuen Long)
2j. Sewage Generation rate	=	**68.6**	m^3/day

3. Tsun Mee Industrial Building

3a. Assumed Area	=	1019	m^2 (GFA)
3b. Assumed floor area per employee	=	250.0	m^2 per employee -- (refer to Table 8 of CIFSUS - Storage)
3c. Total number of employees	=	5	employees
3d. Design flow for commercial employee	=	0.18	m^3/person/day -- (refer to Table T-3 of GESF - J3)
3e. Sewage Generation rate	=	**0.9**	m^3/day

4. Golden Town Industrial Building

4a. Assumed Area	=	2927	m^2 (GFA)
4b. Assumed floor area per employee	=	43.5	m^2 per employee -- (refer to Table 8 of CIFSUS - Manufacturing)
4c. Total number of employees	=	68	employees
4d. Design flow for industrial employee	=	2.08	m^3/person/day -- (refer to Table T-3 of GESF - J1 Yuen Long)
4e. Sewage Generation rate	=	**141.4**	m^3/day

5. Kar Wah Industrial Building

5a. Assumed Area	=	13524	m^2 (GFA)
5b. Assumed floor area per employee	=	43.5	m^2 per employee -- (refer to Table 8 of CIFSUS - Manufacturing)
5c. Total number of employees	=	311	employees
5d. Design flow for industrial employee	=	2.08	m^3/person/day -- (refer to Table T-3 of GESF - J1 Yuen Long)
5e. Sewage Generation rate	=	**646.9**	m^3/day

6. Hung Wai Industrial Building

7a. Assumed Area	=	22963	m^2 (GFA)
6b. Assumed floor area per employee	=	250.0	m^2 per employee -- (refer to Table 8 of CIFSUS - Storage)
6c. Total number of employees	=	92	employees
6d. Design flow for commercial employee	=	0.18	m^3/person/day -- (refer to Table T-3 of GESF - J3)
6e. Sewage Generation rate	=	**16.6**	m^3/day
6f. Assumed Area (Manufacturing)	=	1640	m^2 (GFA)
6g. Assumed floor area per employee	=	43.5	m^2 per employee -- (refer to Table 8 of CIFSUS - Manufacturing)
6h. Total number of employees	=	38	employees
6i. Design flow for industrial employee	=	2.08	m^3/person/day -- (refer to Table T-3 of GESF - J1 Yuen Long)
6j. Sewage Generation rate	=	**79.0**	m^3/day

7. Mansfield Industrial Centre

7a. Assumed Area	=	12021	m^2 (GFA)
7b. Assumed floor area per employee	=	43.5	m^2 per employee -- (refer to Table 8 of CIFSUS - Manufacturing)
7c. Total number of employees	=	277	employees
7d. Design flow for industrial employee	=	2.08	m^3/person/day -- (refer to Table T-3 of GESF - J1 Yuen Long)
7e. Sewage Generation rate	=	**576.2**	m^3/day

8. Crown Data Centre III

8a. Assumed Area	=	30579	m^2 (GFA)
8b. Assumed floor area per employee	=	250.0	m^2 per employee -- (refer to Table 8 of CIFSUS - Storage)
8c. Total number of employees	=	123	employees
8d. Design flow for commercial employee	=	0.18	m^3/person/day -- (refer to Table T-3 of GESF - J3)
8e. Sewage Generation rate	=	**22.1**	m^3/day

9. Goodman Yuen Long Logistics Centre

9a. Assumed Area	=	30673	m^2 (GFA)
9b. Assumed floor area per employee	=	250.0	m^2 per employee -- (refer to Table 8 of CIFSUS - Storage)
9c. Total number of employees	=	123	employees
9d. Design flow for commercial employee	=	0.18	m^3/person/day -- (refer to Table T-3 of GESF - J3)
9e. Sewage Generation rate	=	**22.1**	m^3/day

10. Po Wai Building

10a. Assumed Area	=	6231	m^2 (GFA)
10b. Assumed floor area per employee	=	43.5	m^2 per employee -- (refer to Table 8 of CIFSUS - Manufacturing)
10c. Total number of employees	=	144	employees
10d. Design flow for industrial employee	=	2.08	m^3/person/day -- (refer to Table T-3 of GESF - J1 Yuen Long)
10e. Sewage Generation rate	=	**299.5**	m^3/day

11. Jing Hin Godowns (Yuen Long) Ltd.

11a. Assumed Area	=	5921	m^2 (GFA)
11b. Assumed floor area per employee	=	250.0	m^2 per employee -- (refer to Table 8 of CIFSUS - Storage)
11c. Total number of employees	=	24	employees
11d. Design flow for commercial employee	=	0.18	m^3/person/day -- (refer to Table T-3 of GESF - J3)
11e. Sewage Generation rate	=	**4.3**	m^3/day

Table 3 Calculation for Sewage Generation Rate of the Existing Surrounding Building

12. Yuen Long Trading Centre

12a. Assumed Area	=	19749	m^2 (GFA)
12b. Assumed floor area per employee	=	43.5	m^2 per employee -- (refer to Table 8 of CIFSUS - Manufacturing)
12c. Total number of employees	=	455	employees
12d. Design flow for industrial employee	=	2.08	m^3/person/day -- (refer to Table T-3 of GESF - J1 Yuen Long)
12e. Sewage Generation rate	=	**946.4**	m^3/day

13. Dah Chong Hong (Motor Service Centre) Ltd.

13a. Assumed Area	=	4013	m^2 (GFA)
13b. Assumed floor area per employee	=	43.5	m^2 per employee -- (refer to Table 8 of CIFSUS - Manufacturing)
13c. Total number of employees	=	93	employees
13d. Design flow for industrial employee	=	2.08	m^3/person/day -- (refer to Table T-3 of GESF - J1 Yuen Long)
13e. Sewage Generation rate	=	**193.4**	m^3/day

14. CPL Aromas (Far East) Limited

14a. Assumed Area	=	3828	m^2 (GFA)
14b. Assumed floor area per employee	=	18.2	m^2 per employee -- (refer to Table 8 of CIFSUS - Business Services)
14c. Total number of employees	=	211	employees
14d. Design flow for commercial employee	=	0.08	m^3/person/day -- (refer to Table T-3 of GESF - J5)
14e. Sewage Generation rate	=	**16.9**	m^3/day

15. Crown Data Centre II

15a. Assumed Area	=	30222	m^2 (GFA)
15b. Assumed floor area per employee	=	250.0	m^2 per employee -- (refer to Table 8 of CIFSUS - Storage)
15c. Total number of employees	=	121	employees
15d. Design flow for commercial employee	=	0.18	m^3/person/day -- (refer to Table T-3 of GESF - J3)
15e. Sewage Generation rate	=	**21.8**	m^3/day

16. Public Lavatory (Tung Tau Industrial Area Playground)

16a. Discharge Unit (DU) from WC (Qty * DU)	=	5.4	L/s
16b. Discharge Unit (DU) from Single Urinal with Cistern (Qty * DU)	=	0.8	L/s
16c. Discharge Unit (DU) from Basin (Qty * DU)	=	1.2	L/s
16d. Sum of DUs	=	7.4	L/s
16e. Wastewater Flow Rate ($K\sqrt{\sum DU}$)	=	**2.7**	L/s

Remarks

1. Calculation of Wastewater Flow Rate is followed Plumbing Engineering Services Design Guide (PESDG)

2. Discharge Unit (DU) of WC = 1.8 L/s; DU of Basin = 0.3 L/s; DU of Single Urinal with Cistern = 0.4L/s, extracted from Table 5 of PESDG.

3. Total number of WC = 3; total number of Single Urinal with Cistern = 2; Total number of Basin = 4.

4. Frequency of use, K = 1, extracted from Table 6 of PESDG.

17. Wang Fu Court

17a. Total number of units	=	229	units (http://www1.centadata.com/eptest.aspx?type=1&code=BEPPWKPSPK&info=basicinfo&code2=&page=0)
17b. Total number of residents	=	642	people -- (2021 Population Census: Yuen Long DC Average Household Size of 2.8)
17c. Design flow	=	0.27	m^3/person/day -- (Private R2 in Table T-1 of GESF)
17d. Sewage Generation rate	=	**173.3**	m^3/day

18. Annking Industrial Building

18a. Assumed Area (Warehouse)	=	625	m^2 (GFA)
18b. Assumed floor area per employee	=	250.0	m^2 per employee -- (refer to Table 8 of CIFSUS - Storage)
18c. Total number of employees	=	3	employees
18d. Design flow for commercial employee	=	0.18	m^3/person/day -- (refer to Table T-3 of GESF - J3)
18e. Sewage Generation rate	=	**0.5**	m^3/day
18f. Assumed Area (Manufacturing)	=	4798	m^2 (GFA)
18g. Assumed floor area per employee	=	43.5	m^2 per employee -- (refer to Table 8 of CIFSUS - Manufacturing)
18h. Total number of employees	=	111	employees
18i. Design flow for industrial employee	=	2.08	m^3/person/day -- (refer to Table T-3 of GESF - J1 Yuen Long)
18j. Sewage Generation rate	=	**230.9**	m^3/day

19. Fu Wah Industrial Building

19a. Assumed Area	=	5742	m^2 (GFA)
19b. Assumed floor area per employee	=	43.5	m^2 per employee -- (refer to Table 8 of CIFSUS - Manufacturing)
19c. Total number of employees	=	132	employees
19d. Design flow for industrial employee	=	2.08	m^3/person/day -- (refer to Table T-3 of GESF - J1 Yuen Long)
19e. Sewage Generation rate	=	**274.6**	m^3/day

20. Planned Residential Development at Yuen Long Town Lot 461 (A/YL/257)

Flow Rate	=	**279.1**	m^3/day (extracted from SIA-R7298)

21. Yuen Long Hi-Tech Centre

21a. Assumed Area (Warehouse)	=	22100	m^2 (GFA)
21b. Assumed floor area per employee	=	250.0	m^2 per employee -- (refer to Table 8 of CIFSUS - Storage)
21c. Total number of employees	=	89	employees
21d. Design flow for commercial employee	=	0.18	m^3/person/day -- (refer to Table T-3 of GESF - J3)
21e. Sewage Generation rate	=	**16.0**	m^3/day
21f. Assumed Area (Manufacturing)	=	2700	m^2 (GFA)
21g. Assumed floor area per employee	=	43.5	m^2 per employee -- (refer to Table 8 of CIFSUS - Manufacturing)
21h. Total number of employees	=	63	employees
21i. Design flow for industrial employee	=	2.08	m^3/person/day -- (refer to Table T-3 of GESF - J1 Yuen Long)
21j. Sewage Generation rate	=	**131.0**	m^3/day

22. Hi Yip Factory Building

22a. Assumed Area	=	5000	m^2 (GFA)
22b. Assumed floor area per employee	=	43.5	m^2 per employee -- (refer to Table 8 of CIFSUS - Manufacturing)
22c. Total number of employees	=	115	employees
22d. Design flow for industrial employee	=	2.08	m^3/person/day -- (refer to Table T-3 of GESF - J1 Yuen Long)
22e. Sewage Generation rate	=	**239.2**	m^3/day

Table 3 Calculation for Sewage Generation Rate of the Existing Surrounding Building

23. The Rainbow

23a. Assumed Office Area (2/F-10/F)	=	8567	m^2 (GFA)
23b. Assumed floor area per employee	=	18.2	m^2 per employee -- (refer to Table 8 of CIFSUS - Business)
23c. Total number of employees	=	471	employees
23d. Design flow for commercial employee	=	0.08	m^3/person/day -- (refer to Table T-3 of GESF - J6)
23e. Sewage Generation rate	=	**37.7**	m^3/day
23f. Assumed F&B Area (G/F & 1/F)	=	1500	m^2 (GFA)
23g. Assumed floor area per employee	=	19.6	m^2 per employee -- (refer to Table 8 of CIFSUS - Restaurants)
23h. Total number of employees	=	77	employees
23i. Design flow for commercial employee	=	1.58	m^3/person/day -- (refer to Table T-3 of GESF - J10)
23j. Sewage Generation rate	=	**121.7**	m^3/day

24. Health Works (Group) Centre

24a. Assumed Area	=	2140	m^2 (GFA)
24b. Assumed floor area per employee	=	43.5	m^2 per employee -- (refer to Table 8 of CIFSUS - Manufacturing)
24c. Total number of employees	=	50	employees
24d. Design flow for industrial employee	=	2.08	m^3/person/day -- (refer to Table T-3 of GESF - J1 Yuen Long)
24e. Sewage Generation rate	=	**104.0**	m^3/day

25. A/YL/253

25a. Assumed Office Area	=	5560	m^2 (GFA) (https://www.info.gov.hk/tpb/tc/plan_application/Attachment/20191022/s16fi_A_YL_253_3_gist.pdf)
25b. Assumed floor area per employee	=	18.2	m^2 per employee -- (refer to Table 8 of CIFSUS - Business)
25c. Total number of employees	=	306	employees
25d. Design flow for commercial employee	=	0.08	m^3/person/day -- (refer to Table T-3 of GESF - J6)
25e. Sewage Generation rate	=	**24.5**	m^3/day
2a. Assumed Area (Retail)	=	1977	m^2 (GFA) (https://www.info.gov.hk/tpb/tc/plan_application/Attachment/20191022/s16fi_A_YL_253_3_gist.pdf)
2b. Assumed floor area per employee	=	28.6	m^2 per employee -- (refer to Table 8 of CIFSUS - Retail Trade)
2c. Total number of employees	=	70	employees
2d. Design flow for commercial employee	=	0.28	m^3/person/day -- (refer to Table T-3 of GESF - J4)
2e. Sewage Generation rate	=	**19.6**	m^3/day

26. On Lok Road Substation

26a. Assumed Area	=	3867	m^2 (GFA)
26b. Assumed floor area per employee	=	30.3	m^2 per employee -- (refer to Table 8 of CIFSUS - Community, Social & Personal Services)
26c. Total number of employees	=	128	employees
26d. Design flow for commercial employee	=	0.33	m^3/person/day -- (refer to Table T-3 of GESF - J2)
26e. Sewage Generation rate	=	**42.2**	m^3/day

27. Hing Wah Industrial Building

27a. Assumed Area	=	6509	m^2 (GFA)
27b. Assumed floor area per employee	=	43.5	m^2 per employee -- (refer to Table 8 of CIFSUS - Manufacturing)
27c. Total number of employees	=	150	employees
27d. Design flow for industrial employee	=	2.08	m^3/person/day -- (refer to Table T-3 of GESF - J1 Yuen Long)
27e. Sewage Generation rate	=	**312.0**	m^3/day

28. Po Leung Kuk Energetic Youth Club

28a. Assumed Area	=	230	m^2 (GFA)
28b. Assumed floor area per employee	=	30.3	m^2 per employee -- (refer to Table 8 of CIFSUS - Community, Social & Personal Services)
28c. Total number of employees	=	8	employees
28d. Design flow for commercial employee	=	0.28	m^3/person/day -- (refer to Table T-3 of GESF - J11)
28e. Sewage Generation rate	=	**2.2**	m^3/day

29. Twin Regency Tower 2

29a. Total number of units	=	272	units (http://www1.centadata.com/eptest.aspx?type=2&code=BESPWPPXPK&info=basicinfo&code2=&page=0)
29b. Total number of residents	=	762	people -- (2021 Population Census: Yuen Long DC Average Household Size of 2.8)
29c. Design flow	=	0.27	m^3/person/day -- (Private R2 in Table T-1 of GESF)
29d. Sewage Generation rate	=	**205.7**	m^3/day

Note: According to Appendix 2.2, the development discharges in two ways; Tower 2 is connected to the existing sewer FWD1011904. Therefore, only Tower 2 is included in the catchment calculation.

30. One North

30a. Assumed Office Area (2/F-10/F)	=	41342	m^2 (GFA) (https://www.onenorth.com.hk/tc/)
30b. Assumed floor area per employee	=	18.2	m^2 per employee -- (refer to Table 8 of CIFSUS - Business)
30c. Total number of employees	=	2272	employees
30d. Design flow for commercial employee	=	0.08	m^3/person/day -- (refer to Table T-3 of GESF - J6)
30e. Sewage Generation rate	=	**181.8**	m^3/day
30a. Assumed Area (Retail)	=	10498	m^2 (GFA) (https://www.onenorth.com.hk/tc/)
30b. Assumed floor area per employee	=	28.6	m^2 per employee -- (refer to Table 8 of CIFSUS - Retail Trade)
30c. Total number of employees	=	368	employees
3d. Design flow for commercial employee	=	0.28	m^3/person/day -- (refer to Table T-3 of GESF - J4)
30e. Sewage Generation rate	=	**103.0**	m^3/day

Table 3 Calculation for Sewage Generation Rate of the Existing Surrounding Building

Catchment B (S2)

1. Public Lavatory (Wang Yip Street Public Toilet)

1a. Discharge Unit (DU) from WC (Qty * DU)	=	9	L/s
1b. Discharge Unit (DU) from Single Urinal with Cistern (Qty * DU)	=	1.6	L/s
1c. Discharge Unit (DU) from Basin (Qty * DU)	=	1.8	L/s
1d. Sum of DUs	=	12.4	L/s
1e. Wastewater Flow Rate ($K\sqrt{\sum DU}$)	=	**3.5**	L/s

Remarks

1. Calculation of Wastewater Flow Rate is followed Plumbing Engineering Services Design Guide (PESDG)

2. Discharge Unit (DU) of WC = 1.8 L/s; DU of Basin = 0.3 L/s; DU of Single Urinal with Cistern = 0.4L/s, extracted from Table 5 of PESDG.

3. Total number of WC = 5; total number of Single Urinal with Cistern = 4; Total number of Basin = 6.

4. Frequency of use, K = 1, extracted from Table 6 of PESDG.

Catchment C (S3)

1. The Spectra

1a. Total number of units	=	912	units (http://www1.centadata.com/eptest.aspx?type=2&code=BESPWPPEPK&info=basicinfo&code2=&page=0)
1b. Total number of residents	=	2554	people -- (2021 Population Census: Yuen Long DC Average Household Size of 2.8)
1c. Design flow	=	0.27	m^3/person/day -- (Private R2 in Table T-1 of GESF)
1d. Sewage Generation rate	=	**689.6**	m^3/day

Clubhouse

1a. Assumed Area	=	633	m^2
1b. Assumed floor area per employee	=	30.3	m^2 per employee -- (refer to Table 8 of CIFSUS - Community, Social & Personal Services)
1c. Total number of employees	=	21	employees
1d. Design flow for commercial employee	=	0.28	m^3/employee/day -- (refer to Table T-2 of GESF - J11)
1e. Sewage Generation rate	=	**5.8**	m^3/day

2. Sun Shun Fuk Centre

2a. Assumed Area (Retail)	=	594	m^2 (GFA)
2b. Assumed floor area per employee	=	28.6	m^2 per employee -- (refer to Table 8 of CIFSUS - Retail Trade)
2c. Total number of employees	=	21	employees
2d. Design flow for commercial employee	=	0.28	m^3/person/day -- (refer to Table T-3 of GESF - J4)
2e. Sewage Generation rate	=	**5.9**	m^3/day
2f. Assumed Area (Warehouse)	=	2376	m^2 (GFA)
2g. Assumed floor area per employee	=	250.0	m^2 per employee -- (refer to Table 8 of CIFSUS - Storage)
2h. Total number of employees	=	10	employees
2i. Design flow for commercial employee	=	0.18	m^3/person/day -- (refer to Table T-3 of GESF - J3)
2j. Sewage Generation rate	=	**1.8**	m^3/day

3. Public Lavatory (Wang Yip Street South Public Toilet)

3a. Discharge Unit (DU) from WC (Qty * DU)	=	5.4	L/s
3b. Discharge Unit (DU) from Single Urinal with Cistern (Qty * DU)	=	0.8	L/s
3c. Discharge Unit (DU) from Basin (Qty * DU)	=	1.2	L/s
3d. Sum of DUs	=	7.4	L/s
3e. Wastewater Flow Rate ($K\sqrt{\sum DU}$)	=	**2.7**	L/s

Remarks

1. Calculation of Wastewater Flow Rate is followed Plumbing Engineering Services Design Guide (PESDG)

2. Discharge Unit (DU) of WC = 1.8 L/s; DU of Basin = 0.3 L/s; DU of Single Urinal with Cistern = 0.4L/s, extracted from Table 5 of PESDG.

3. Total number of WC = 3; total number of Single Urinal with Cistern = 2; Total number of Basin = 4.

4. Frequency of use, K = 1, extracted from Table 6 of PESDG.

Sub-total

Total Flow at S1 (including Proposed Development)	**=**	**6671.4**	m^3/day
Total Flow at S2 (including Proposed Development)	**=**	**6671.4**	m^3/day
Total Flow at S3 (including Proposed Development)	**=**	**7374.5**	m^3/day

Table 4a Comparision of the Hydraulic Capacity of Existing Sewers for Sewerage generated from the Proposed Development and Surrounding Catchment Areas

Segment	Pipe Dia. (mm)	Pipe Length (m)	Gradient	Estimated Capacity (L/s)	ADWF (m^3/day)	Contributing Population	Peaking Factor	Swimming Pool/Public Toilet (L/s)	Peak Flow from the Proposed Development and Catchment Areas (L/s)	Contribution from the Proposed Development and the Surrounding Catchment Areas (%)	Status
S1-S2	750	47.2	0.002	438	6671.4	24709	4	18.8	327.6	74.9%	OK
S2-S3	750	43.3	0.002	403	6671.4	24709	4	22.3	331.1	82.2%	OK
S3-S4	450	6.3	0.112	1086	7374.5	27313	4	25.0	366.4	33.7%	OK

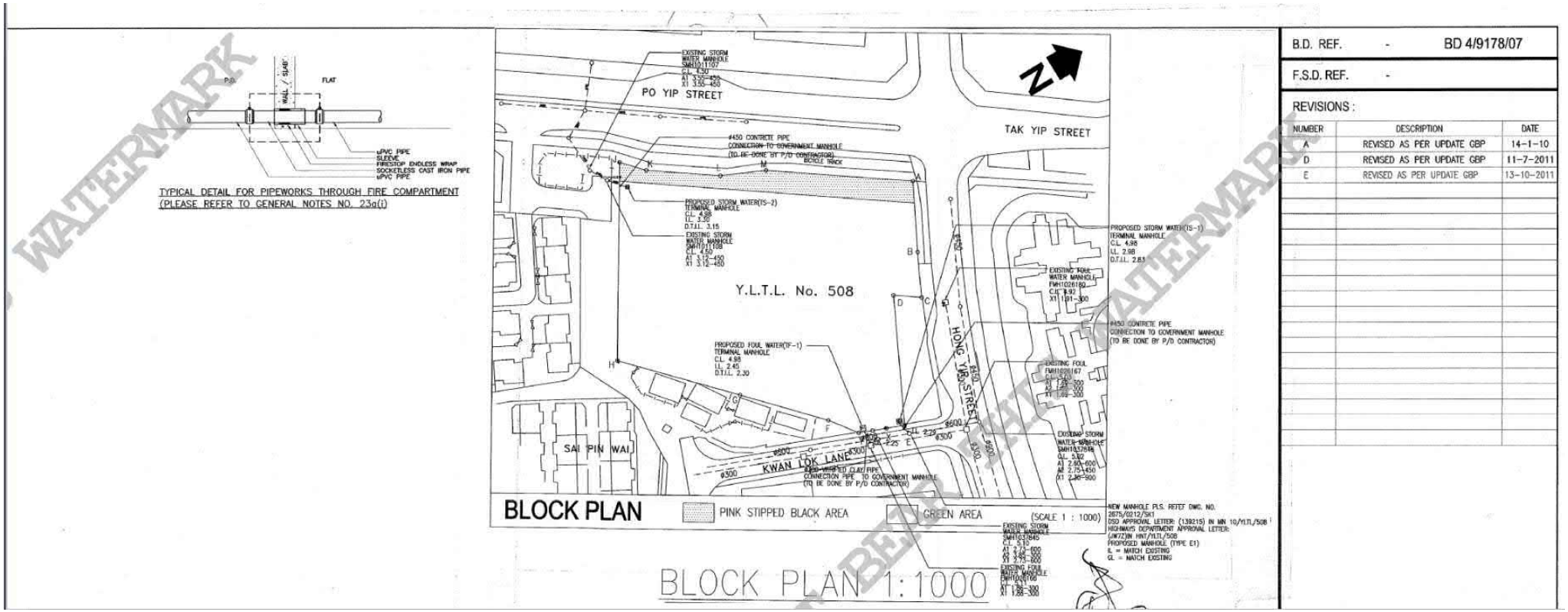
Table 4b Comparision of the Hydraulic Capacity of Proposed Sewers for Sewerage generated from the Proposed Development

Segment	Pipe Dia. (mm)	Pipe Length (m)	Gradient	Estimated Capacity (L/s)	ADWF (m^3/day)	Contributing Population	Peaking Factor	Swimming Pool/Public Toilet (L/s)	Peak Flow from the Proposed Development and Catchment Areas (L/s)	Contribution from the Proposed Development and the Surrounding Catchment Areas (%)	Status
T1-S1	300	21.3	0.028	204	844.2	3127	6	16.0	74.7	36.7%	OK

Remarks: (1) The value of peaking factor = 4 is used for population 10,000-50,000 incl. stormwater allowance (refers to Table T-5 of GESF)
(2) The value of peaking factor = 6 is used for population 1,000-5,000 incl. stormwater allowance (refers to Table T-5 of GESF)

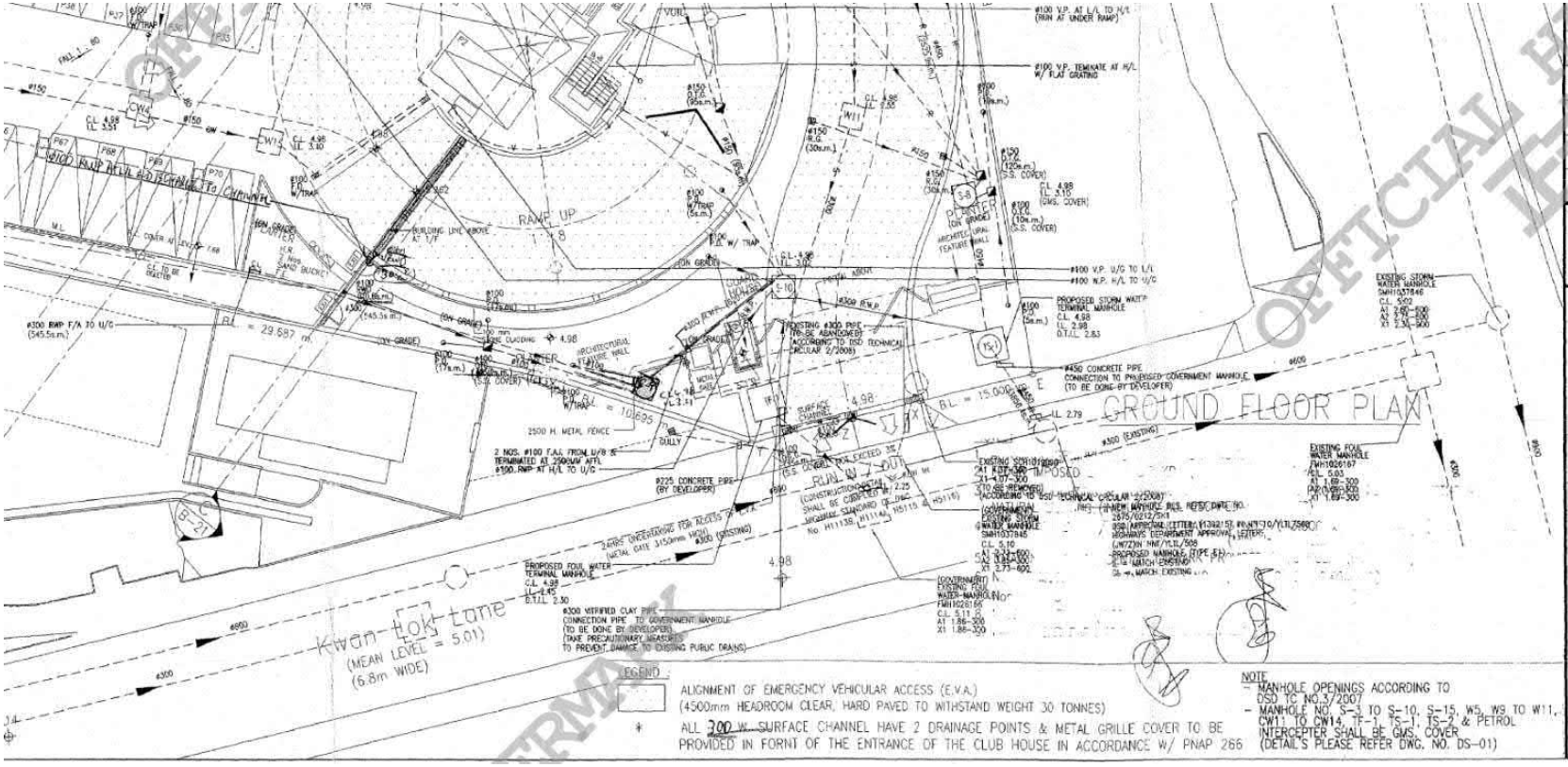
Appendix 2.2 Drainage Layout of One Regent Place and Twin Regency

One Regent Place



		Approved Plan	D-01	LOCATION PLAN NOTES LEGEND & ABBREVATIONS	10/11/2011	☐	☐

Based on the drainage plan for One Regent Place, the development's terminal manhole connects to the existing manhole FMH1026166. Therefore, the development is not included in the catchment calculation.



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CHECKED BY	K.S. WONG
PRINTED DATE	AUG., 2009
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JOB NO	DRAWING NO	REV
PNT-150	D-02	E

ARCHITECT / R.S.E.

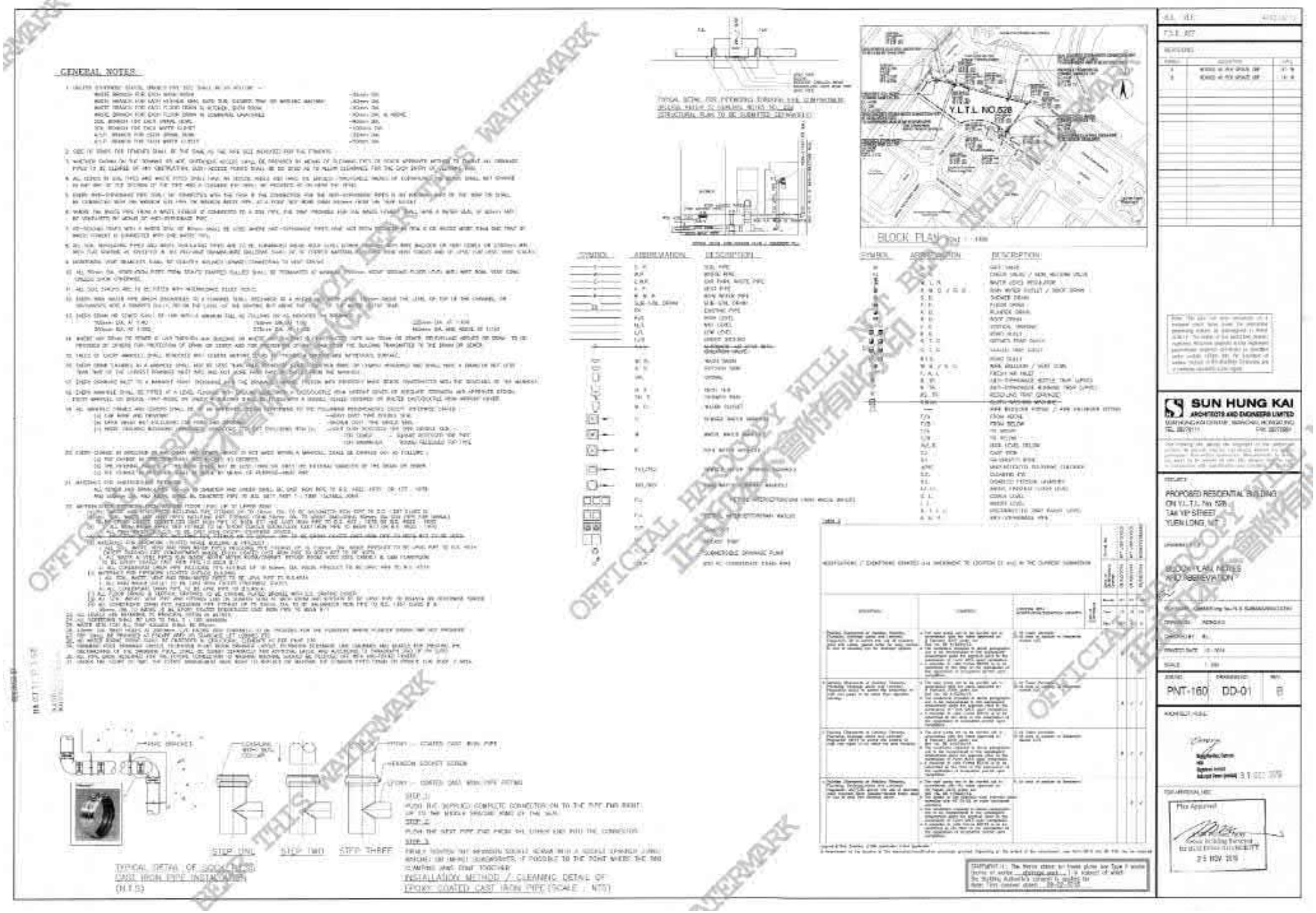
JEFF NG KIN KWAN
Authorized Person (List 1)
Architect

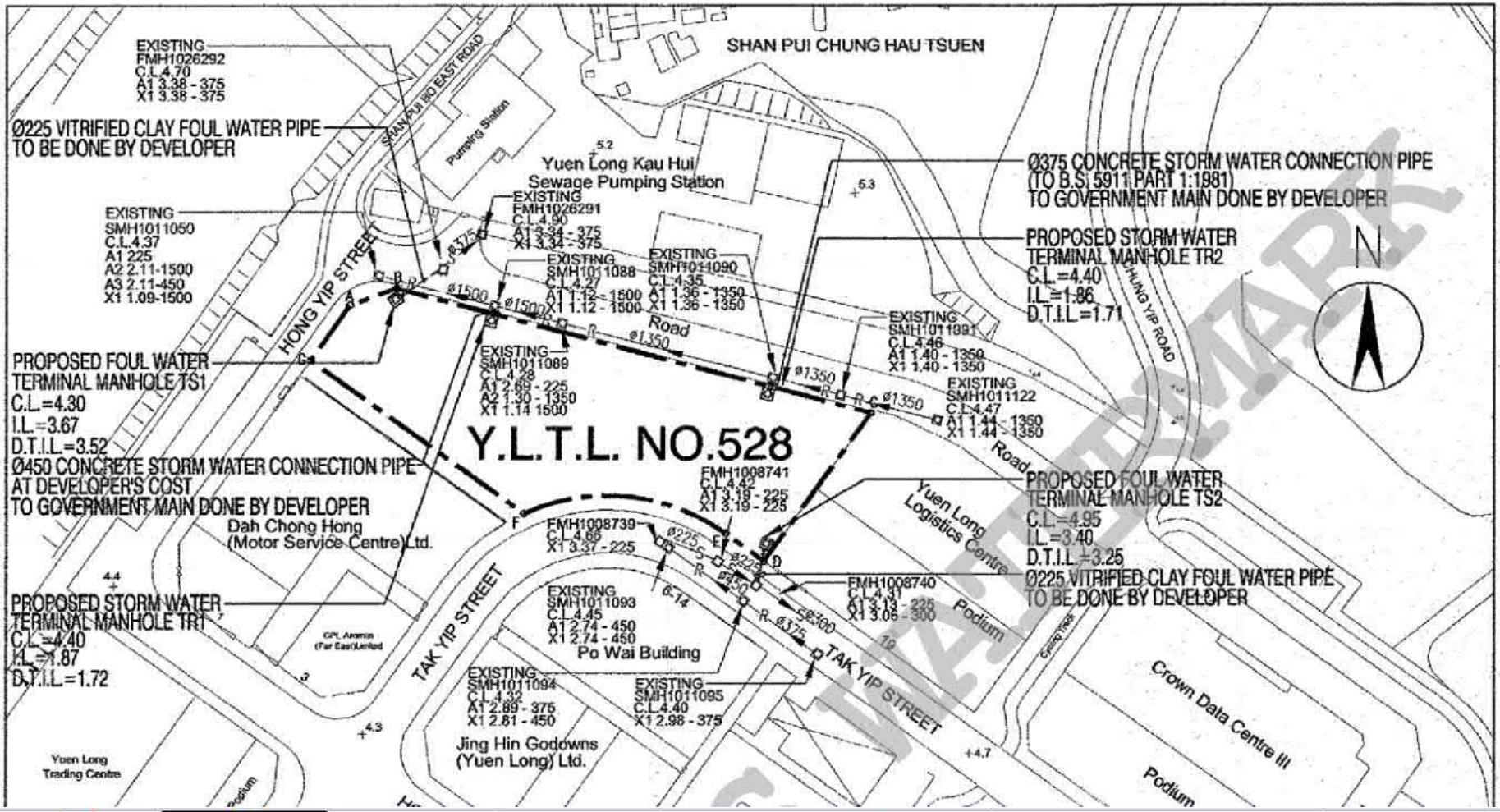
FOR APPROVAL USE

Plan Approved
TANG York-wan Angela
Senior Building Surveyor
for BUILDING AUTHORITY
22 DEC 2011

	Approved Plan	D-02	GROUND FLOOR PLAN (U/G DRAINAGE LAYOUT)		22/12/2011	☐	☐

Twin Regency





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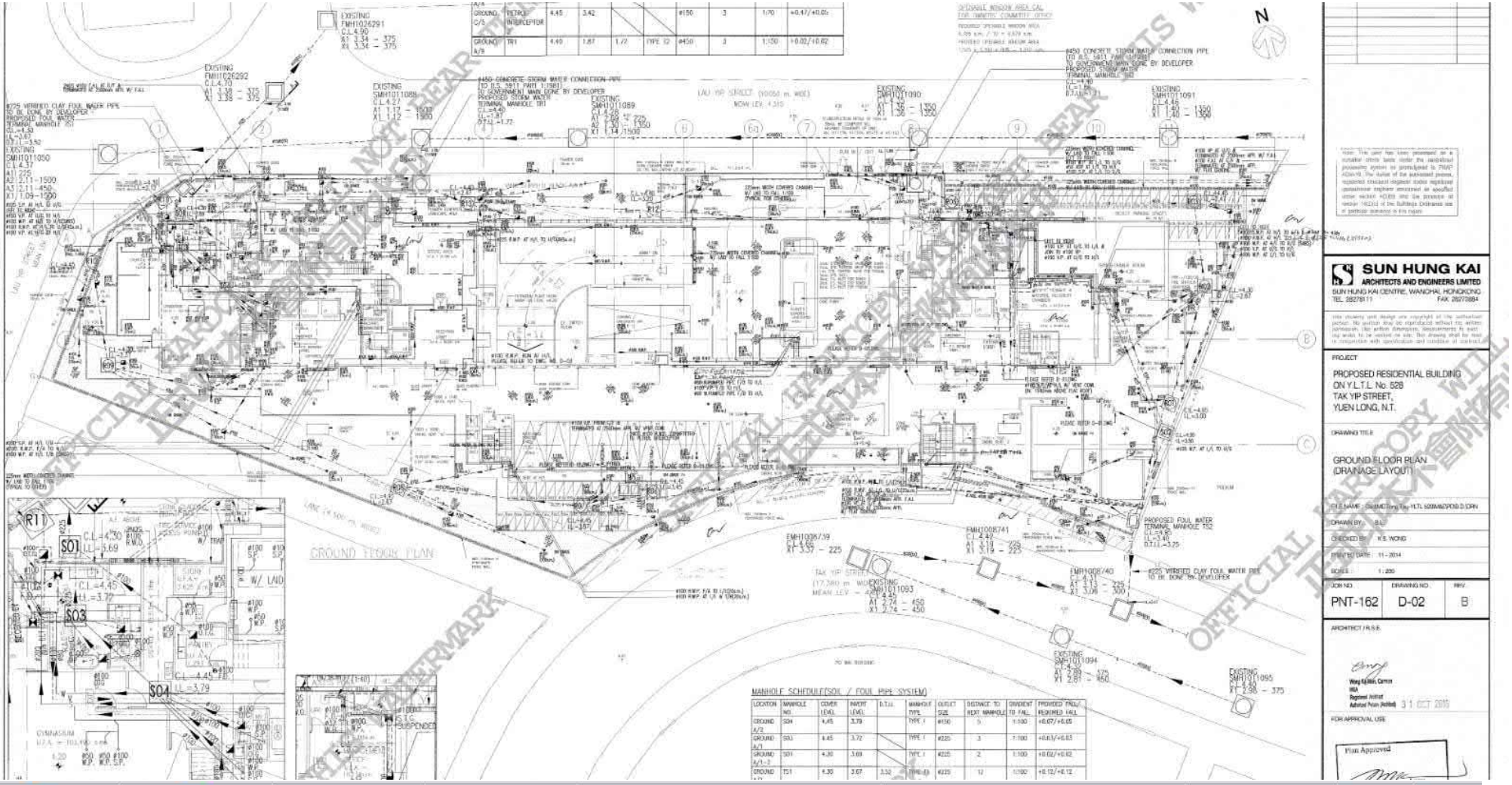

Approved Plan	D-02	GROUND FLOOR PLAN (DRAINAGE LAYOUT)	25/11/2016

Appendix VI

Visual Impact Assessment

S16 PLANNING APPLICATION
DRAFT YUEN LONG OZP NO. S/YL/28

Proposed "Flat", "Shop and Services"/ "Eating Place" and "Social Welfare Facility" with Minor Relaxation of Plot Ratio and Building Height Restrictions
at 21-35 Wang Yip Street East, Yuen Long

REVISED VISUAL IMPACT ASSESSMENT

July 2026

Applicant:
Star Success International Limited

Consultancy Team:
KTA Planning Limited
DLN Architects Ltd
Ramboll Hong Kong Limited
CTA Consultants Limited
Landes Limited

PLANNING LIMITED
規劃顧問有限公司

S3040b_VIA_V02

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Proposed Residential Development
With Minor Relaxation of Plot Ratio and Building Height Restrictions
at 21 – 35 Wang Yip Street East, Yuen Long

Visual Impact Assessment

1 INTRODUCTION

1.1 Purpose

1.1.1 This Visual Impact Assessment is prepared and submitted on behalf of Star Success International Limited ("the Applicant") to the Town Planning Board ("TPB"/the "BOARD") in support of the S16 Planning Application for a proposed residential development at 21 – 35 Wang Yip Street East in Yuen Long ("Application Site"/ "the Site"). The same Applicant had previously submitted a S12A Amendment of Plan Application and a S16 Planning Application to TPB and TPB agreed with and approved these applications on 27 August 2021 and 22 December 2023 respectively. In 2025, the Government has promulgated different measures to expedite developments and updated the whole Chapter 2 of Hong Kong Planning Standard and Guidelines on residential densities. The Applicant therefore puts forward the current revised development scheme, without jeopardising the provision of Government, Institution and Community ("GIC") facilities, in response to the latest circumstances.

1.1.2 This VIA evaluates, in accordance with the "*Town Planning Board Guidelines on Submission of Visual Impact Assessment for Planning Applications to TPB*" ("TPB PG-No. 41A"), the anticipated visual impacts of the Proposed Development Scheme on public viewers relevant to the Application Site and concludes with recommendation on mitigation measures if necessary.

1.2 Report Structure

1.2.1 Following this introductory section, the methodology adopted in this assessment will be set out in Section 2. The baseline review of the assessment area is included in Section 3. Section 4 includes the Proposed Development Scheme and discussion on the design merits. Visual envelope, public viewers and their representative viewpoints will be identified and analysed in Section 5, followed by assessment of the visual impacts, if any in Section 6. Section 7 concludes this VIA.

2 METHODOLGY

2.1 Visual Impact Assessment Approach

2.1.1 This VIA aims at evaluating the potential visual impact of the Proposed Development Scheme on the public viewers.

2.1.2 According to TPB PG-No. 41A, Visual Impacts shall be assessed based on i) the sensitivity of the key public viewers; ii) visual resources and visual amenities likely to be affected; iii) the magnitude, extent and duration of impact and any resultant improvement or degradation in the visual quality and character of the surrounding area; and iv) the planning intention and known planned developments of the area. Visual Impacts could be beneficial, negligible, slight, moderate or substantial.

2.1.3 Visual sensitivity of public viewers/VSRs is determined taking into account the activity of the VSR, the duration and distance over which the proposed development would remain visual, and the public perception of the value attached to the view being assessed. Visual sensitivity is qualitatively graded from high to low.

2.1.4 Visual changes could be positive or negative and they are not necessarily mutually exclusive. In considering the effect of visual changes, it covers the following four aspects:

- the total effect on the Visual Composition of the surrounding context;
- the degree of Visual Obstruction to key public viewing points; and
- the Visual Change on Public Viewer.

The magnitude of visual changes will be qualitatively graded as Substantial, Moderate, Slight or Negligible.

2.1.5 The VIA will be undertaken in the following steps:

- A baseline review will be conducted to capture the existing visual elements in the surroundings and the planning context of the Site.
- The Proposed Development Scheme for the Site will be briefly presented.
- The Visual Envelope ("VE") will be determined and appropriate public viewpoints ("VPs") to represent the view from key public viewers will be identified.
- Each VP and potential visual impacts of the Proposed Development Scheme on the public viewers will be analysed based on the photomontages prepared from the selected VPs.
- The overall visual impact will be assessed and conclusion on the visual acceptability of the Proposed Residential Development will be made.

3 SITE AND PLANNING CONTEXT

3.1 Site Location and Existing Condition

3.1.1 The Application Site is located at 21-35 Wang Yip Street East in Yuen Long and at the periphery of Tung Tau Industrial Area (*Figure 3.1* refer). The Site occupies a land area of about 7,271m^2. It is currently occupied by a 12-storey industrial building (including ground floor) namely Lai Sun Yuen Long Centre, with some warehouses/storages, repair workshops and etc.

3.1.2 The Application Site is bounded by Wang Yip Street East to its northwest, Keung Yip Street to its northeast, Po Yip Street to its southeast and Long Yip Street to its south. The Site and the wider Tung Tau Industrial Area is generally flat with the at-grade level at about +4.3mPD.

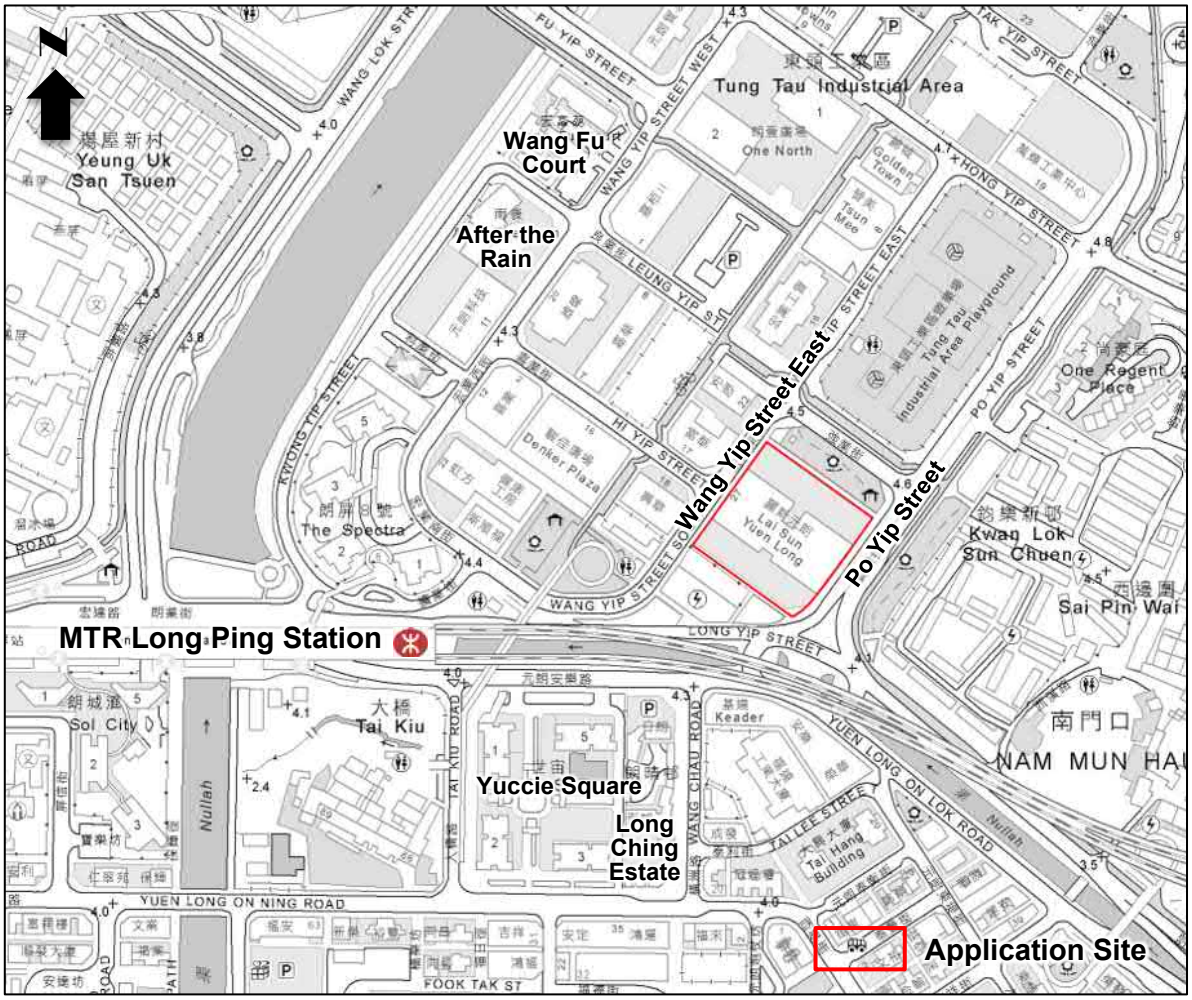


Figure 3.1 Site Location Plan

3.2 Existing Visual Elements in the Surrounding Context

3.2.1 The Site is situated in an area known as Tung Tau Industrial Area, one of the former active industrial areas of Yuen Long. The Tung Tau Industrial Area is bounded by Po Yip Street to its southeast, Long Yip Street to its south and the Yuen Long Main Nullah to its northwest. Tung Tau Area is mainly occupied by low and medium rise industrial and warehouse buildings including industries/businesses of logistics, storage, trading, food production and car repair, etc. Low, medium to high-rise residential buildings can also be found at the periphery. Key visual elements in the surrounding context of the Site include:

<u>Positive Attributes</u>

- Po Yip Street Sitting-out Area located to the east of the Site across Po Yip Street, Keung Yip Street Rest Garden located to the immediate northeast of the Site and Tung Tau Industrial Area Playground located to the further northeast across Keung Yip Street jointly give a sense of spaciousness to the industrial/business area. These active and passive open spaces provide visual openness for the area and become a key visual resource in the area.

<u>Negative Attributes</u>

- Conditions of the existing industrial/office buildings within Tung Tau Industrial Area are poor to fair. They have very high site coverage at the lower floors leaving very limited space for at-grade greenery.
- Tuen Ma Line Long Ping Station and its associated viaduct track line are aligned to the southwest and south of the Application Site. The elevated structure creates visual obstruction at pedestrian level and form a visual barrier between Yuen Long Town Centre and Tung Tau Industrial Area.

3.2.2 The existing visual quality of the Application Site can be regarded as fair.

3.3 Statutory Planning Context

3.3.1 The Application Site falls within an area zoned "Residential (Group E) 2" ("R(E)2") under the Draft Yuen Long Outline Zoning Plan No. S/YL/28 ("the Draft OZP) (*Figure 3.2* refers). According to the Statutory Notes of the Draft OZP, the planning intention of "R(E)" zone is as follows:

"*This zone is primarily intended for phasing out of existing industrial uses through redevelopment (or conversion) for residential use on application to the Town Planning Board. Whilst existing industrial uses will be tolerated, new industrial developments are not permitted in order to avoid perpetuation of industrial/residential interface problem.*"

3.3.2 No new development/redevelopment at the Site should result in a total development in excess of a maximum domestic plot ratio of 5 and non-domestic plot ratio of 0.22, in which floor space that is constructed or intended for use solely as GIC facilities as required by the Government may be disregarded. Furthermore, the Site is also subject to a Building Height Restriction of 85mPD.

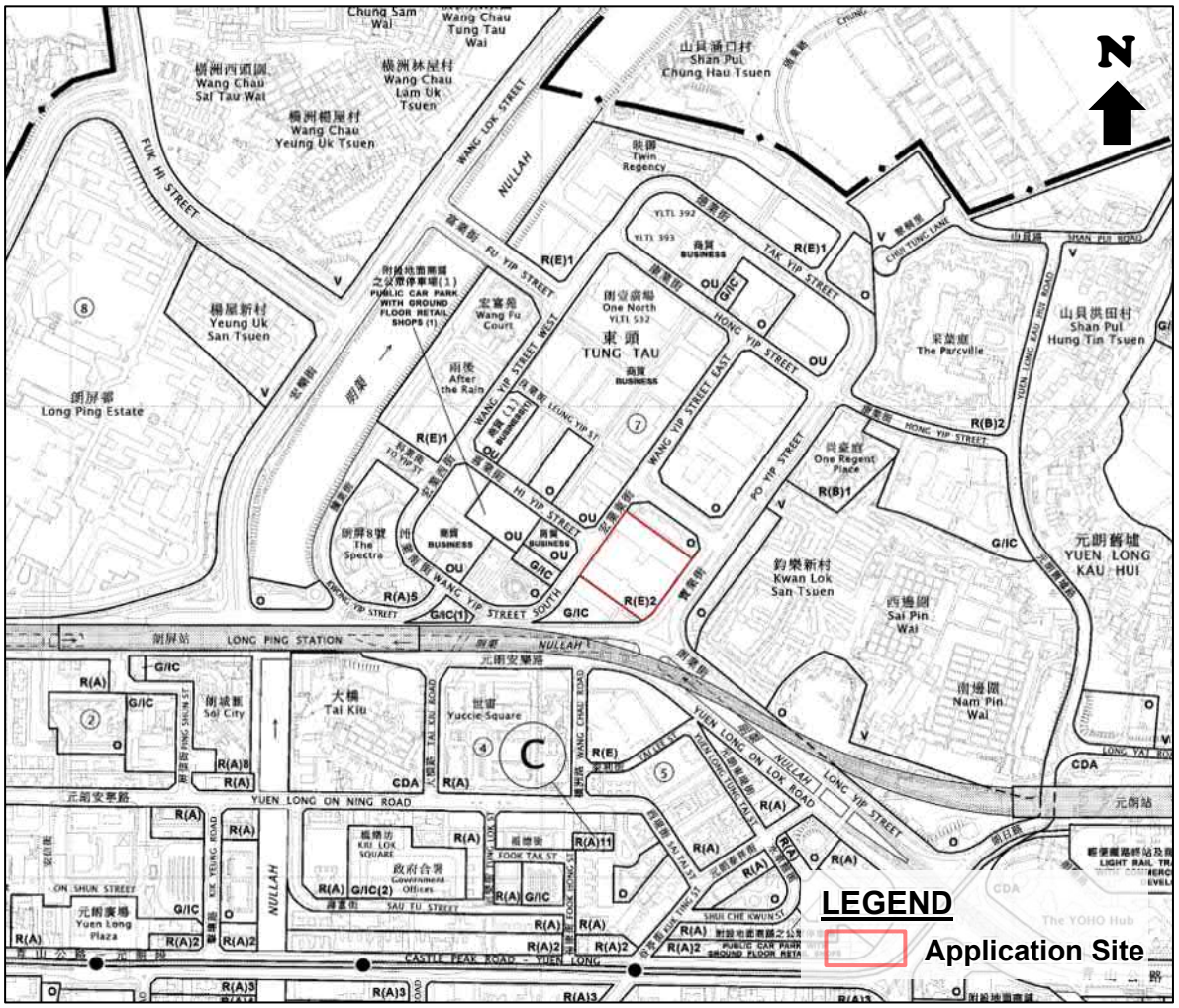


Figure 3.2 Zoning Context Plan

3.4 Planning History of the Site

3.4.1 The Applicant lodged a S12A Amendment of Plan Application in 2020 (application no. Y/YL/16) to rezone the Site from "Other Specified Uses" annotated "Business" ("OU(B)") for residential use. TPB agreed with the application and subsequently gazetted the Draft Yuen Long OZP No. S/YL/26 on 6 January 2023 to rezone the Site to "R(E)2" zone.

3.4.2 The same Applicant then submitted a S16 Planning Application for a proposed residential development with relaxation of plot ratio and building height restrictions under application no. A/YL/304, which TPB approved the application with conditions. The major development parameters of the Approved Development Scheme are as follows:

Site Area	About 7,271m²
Total Gross Floor Area	About 45,226m^2
- *Domestic* - *Non-domestic*	*About 43,626m^2* *About 1,600m^2*
Total PR	6.22
- *Domestic* - *Non-domestic*	*6* *0.22*
No. of Blocks	3 - 2 for residential with lobbies, shop and services/ eating places, residents' club house and social welfare facilities - 1 for shop and services and plant rooms
Max. BH	<u>Non-domestic block:</u> 3 storeys/19.45mPD <u>Residential blocks:</u> 27 storeys above 2-storey podium / 100.75mPD (excluding 2 basement levels)
No. of Flats	1,019
GIC Facilities [1]	- Sub-base/premises for: - Short Term Food Assistance Service Team (STFAST) - Home Care Services (HCS) for Frail Elderly Persons (2-team size non-kitchen based)
Private Open Space	Not less than 2,854m^2
Greenery Coverage	About 21%

Remarks:
[1] According to the applicant, the estimated total net operating floor area of the proposed facilities are 234.5m^2 (i.e. about 422.1m^2 GFA at the assumed factor of 1.8) and these floor space dedicated for Government, Institution and Community facilities (GIC), as required by the Government, has been disregarded in the calculation. Detailed design, layout and floor area of the proposed GIC facilities will be subject to review by the Social Welfare Department (SWD) in future.

4 PROPOSED DEVELOPMENT

4.1 The Proposed Redevelopment Scheme

4.1.1 The Proposed Development Scheme (*Appendix I* of the Supporting Planning Statement refers) for the Proposed Residential Development has been devised. Based on a plot ratio of 6.22 and a site area of 7,271m^2, the total gross floor area (GFA) of the Proposed Development Scheme would be about 45,226m^2. There will be a total of 1,068 units at an average flat size of about 40.8m^2. The proposed entrance to the development will be provided at Wang Yip Street East.

4.1.2 The Proposed Residential Development comprises 2 residential blocks, with 25 to 27 storeys, plus 1 refuge floor and over 1 level of clubhouse and 2 levels of carpark, retail and GIC facilities (with a total of not more than 31 storeys). The building height ranges from 105.7mPD to 112.7mPD. About 1,600m^2 of shop and services/eating places will be located on G/F fronting onto Keung Yip Street Rest Garden as well as Po Yip Street. Internal transport facilities will be provided on G/F and 1/F in response to APP-2.

4.1.3 The Proposed Development Scheme will also include the following welfare facilities on G-2/F of Tower 2 with reference to the approved Planning Application No. A/YL-304:

- Main-base of Short-term Food Assistance Service Team (STFAST); and
- Home Care Services (HCS) for Frail Elderly Persons (2-team size non-kitchen based).

4.1.4 The total NOFA and GFA of the two GIC facilities required by SWD are 234.5m^2 and 422.1m^2 (at a factor of 1.8) respectively. Floor area for GIC uses will be disregarded in the plot ratio calculation. Detailed design, layout, floor area will be subject to detailed design and review by SWD[1] at detailed design stage.

4.1.5 *Table 3.1* summarizes the key development data of the Proposed Residential Development:

[1] We note the following comments from SWD:
"Subject to the agreement of the incorporation of the welfare facilities in the development, the premises for the agreed welfare facilities should be provided as an integral part of the development and will be assigned back to the Financial Secretary Incorporated (FSI) as a Government Accommodation (GA) upon construction completion. Upon satisfactory completion of works by the developer, the Government will reimburse the developer the actual cost of construction or the consideration sum as stipulated in the land lease (to be confirmed by departments concerned before the lease modification), whichever is the lesser, according to the established practice. The service operator would be selected by SWD."

Table 3.1: Key Development Data

Overall Development			
Total Site Area	7,271m^2 (approx.)		
	Domestic	Non-domestic	Total
Maximum Plot Ratio	6.0	0.22*	6.22
GFA (approx.)	43,626m^2	1,600m^{2*}	45,226m^2
No. of Blocks	2		
No. of Units	1,068		
Average Flat Size	About 40.8m^2		
Building Height	29 – 31 storeys/ 105.7 – 112.7mPD		
Domestic Site Coverage	Not more than 33%		
Non-domestic Site Coverage	Not more than 92%		
Private Open Space	Not less than 2,777m^2		
Internal Transport Provision – Residential and Commercial Portion			
Private Car Parking Spaces	150		
Motorcycle Parking Spaces	13		
L/UL Bay	3 HGV and 1 LGV		
Bicycle parking spaces	143		
Internal Transport Provision – Proposed Welfare Facilities**			
Light Bus Parking Spaces	1 space for Home Care Services (HCS) for Frail Elderly Persons		
Ambulance / Private Light Bus Lay-by	1		
L/UL Bay (for shared use)	1 HGV		

* GFA that is constructed or intended for use solely as GIC facilities (about 422.1m^2), as required by the Government, has been disregarded

** Required by Social Welfare Department for operational needs

4.2 Design Considerations and Design Merits

Improvement to the Walking Environment

4.2.1 The Proposed Development Scheme tries to improve the existing dull and monotonous walking environment by allowing opportunities for more street activities and street greening (*Figure 4.1* refers). Firstly, there will be a continue strip of shop frontage facing Keung Yip Street Rest Garden and Po Yip Street. Secondly, there will be 3.5m setback on G-2/F along Po Yip Street and 3m along the passage between the Site and the substation. Along Wang Yip Street East, there will also be a pocket landscaped area of about 120m2 and 1.5m setback on G-2/F. These are going to offer a green and relaxed walking environment to neighbourhood and to inject street life and vibrancy within the area.

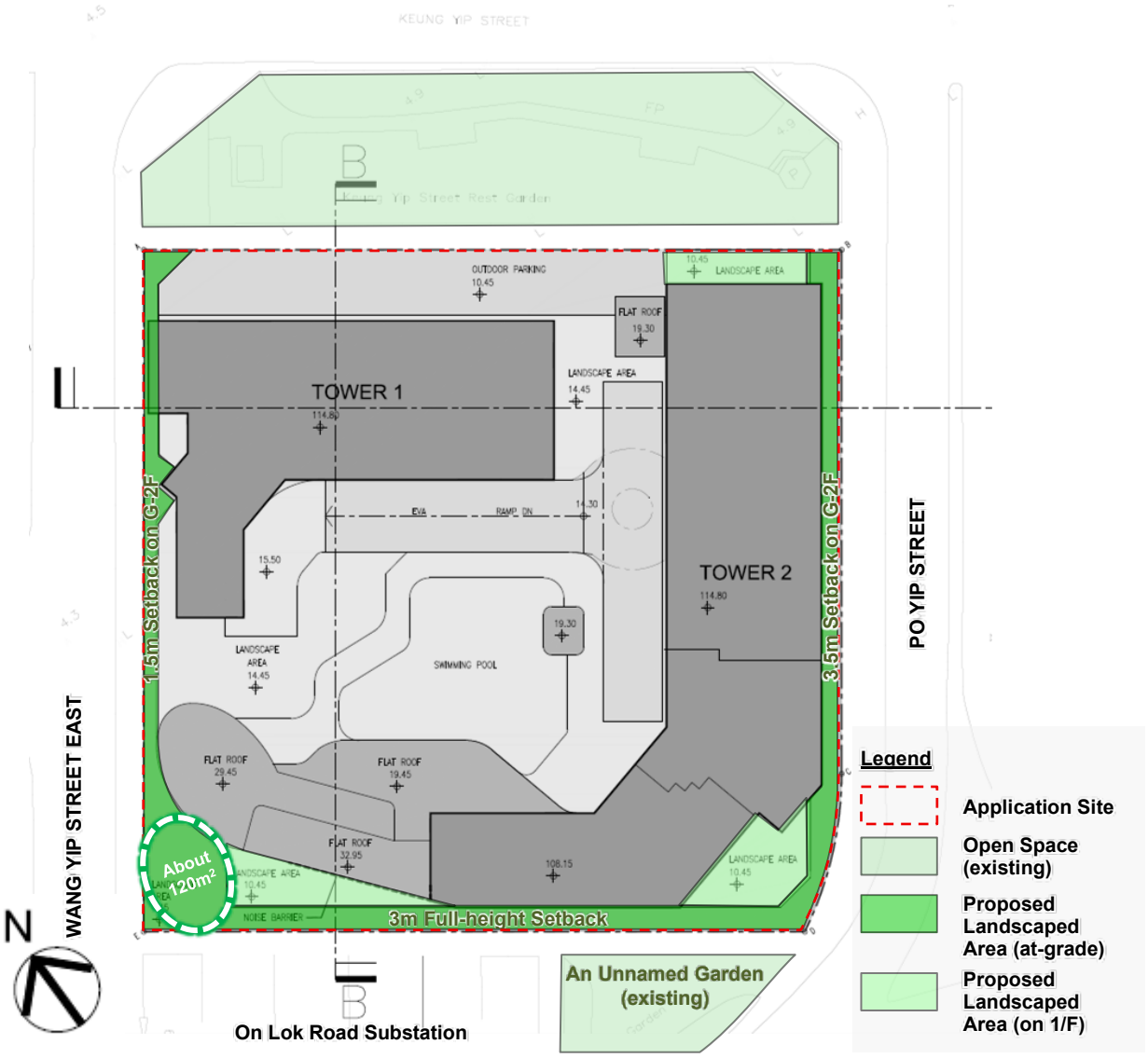


Figure 4.1 Landscaped Areas and Setbacks

4.2.2 The Site fronts onto Tung Tau Industrial Area Playground and Keung Yip Street Rest Garden. The Proposed Development Scheme adopts a terraced podium design concept along Keung Yip Street. The terraced design helps to break down the building mass and create better visual permeability (*Figure 4.2* refers)

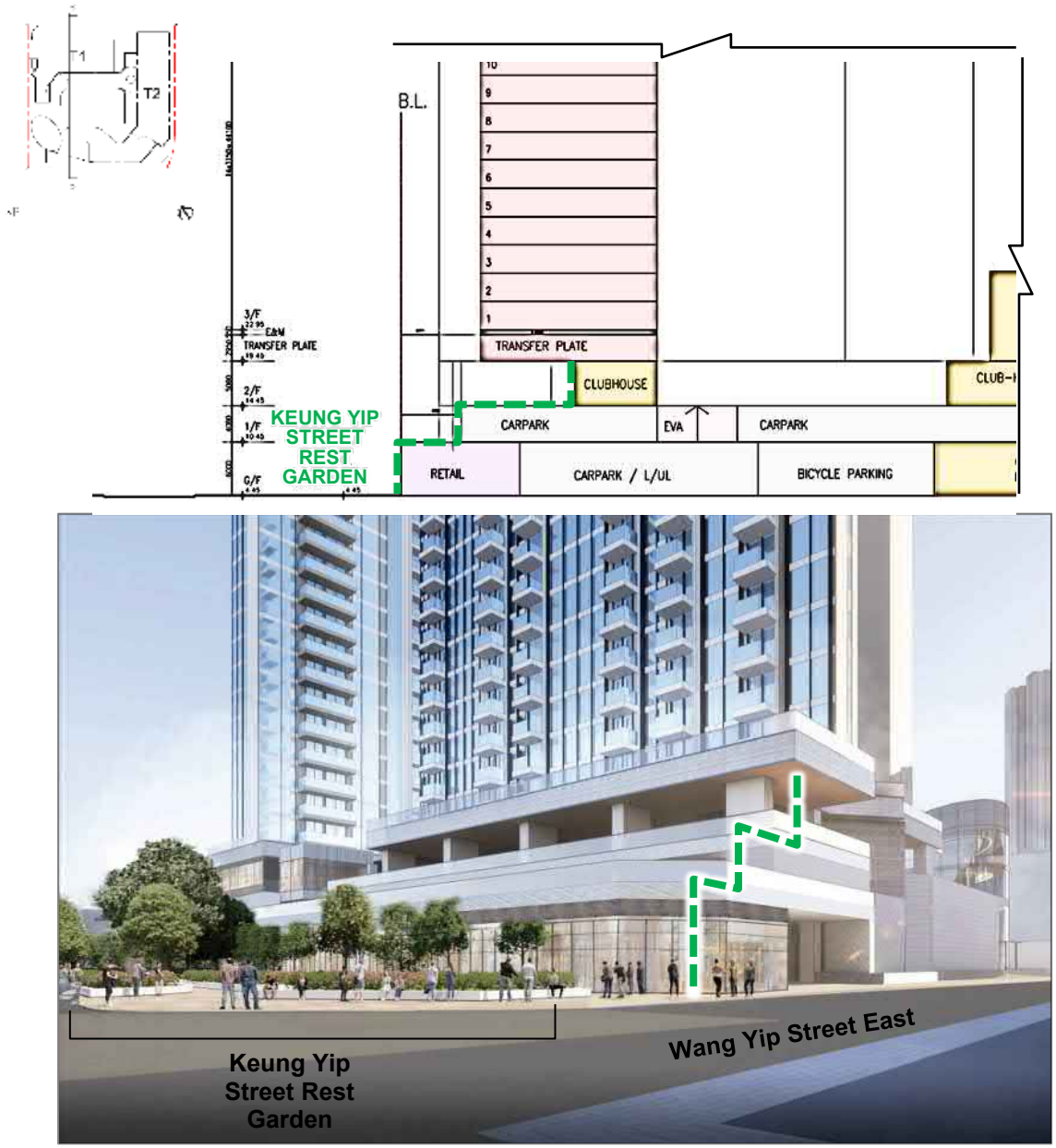


Figure 4.2 Stepped Podium Design

Figure 4.3 Viewing from Wang Yip Street East (Illustrative Drawing)

Stepped Building Height Profile

4.2.3 The building height of Tower 2 is proposed to step up from 108.15mPD to 111.3mPD and 114.8mPD in a south to north direction to add some visual interest to the urban skyline.

Permeable Design

4.2.4 Any openings would introduce railway noise into the Site and create adverse noise impact to the noise sensitive receivers within the Proposed Residential Development. Yet, with the aid of noise mitigation measures, the Proposed Development Scheme is still able to incorporate a 15m building gap between Tower 1 and Tower 2.

5 IDENTIFICATION OF KEY PUBLIC VIEWERS AND SELECTION OF VIEWPOINTS

5.1 Identifying Visual Envelope and Key Public Viewers

5.1.1 The Visual Envelope ("VE") or the zone of visual influence of the Proposed Residential Development is determined by the existing topography and building in the vicinity of the Site. As prescribed in the Town Planning Board Guidelines No. 41A, size of the proposed development, the distance of the development and its potential visibility from selected viewing points, and the actual site and surrounding topographical conditions are considered as the key factors on selecting VE.

5.1.2 In an urban setting, when viewing from street level, existing buildings may block most of the view from close-up key public viewers while buildings of similar height may hide the development from distant. Therefore, the identification of public viewers is largely constrained by the existing built environment. Key public viewpoints in the south are mainly defined by the existing built environment as existing buildings (include major infrastructure, e.g. railway viaduct) may have totally blocked or partially hide the proposed development. Only public viewers to the northeast and northwest of the Site may have exposed view on the Proposed Residential Development. The VE covers the area where direct sight towards the Proposed Residential Development is presented in **Figure 5.1**. Since protecting private view is not the duty of the TPB, this VIA focuses primarily on public viewers only and no private viewers, such as residents of private development and users of developments with restricted/exclusive accesses (e.g. school and office, etc.) will not be identified.

5.2 Selection of Visual Sensitive Viewpoints

5.2.1 Representative public viewers within the VE have been selected for assessing the visual impact to the VSRs. Selected VPs shall cover public views from easily accessible and popular area from different directions. When selecting VPs, priority shall be given to major public open space, public focal points, open spaces, existing/future pedestrian node, key pedestrian/vehicular corridor, and existing major vistas will be considered as major visual sensitive viewpoints.

5.2.2 In this VIA, four public viewpoints have been selected for further assessment on the visual impact of the proposed redevelopment, which are summarized in **Table 5.1** and shown in **Figure 5.1**. The public viewpoints included both close-up and distant views which cover the views from different directions.

Table 5.1 Selected Key Public Viewpoints

Viewpoint No.	Description
VP1	Shui Mun Tau Rest Garden on Yuen Long On Lok Road
VP2	Tung Tau Industrial Area Playground
VP3	Yeung Uk San Tsuen Sitting Out Area
VP4	Footbridge connecting Exit F of MTR Long Ping Station on Kwong Yip Street

VP1 – Shui Mun Tau Rest Garden on Yuen Long On Lok Road

5.2.3 On Lok Road is the road connecting Castle Peak Road – Yuen Long Section, which also signifies the departure of a district distributor and the entrance to Yuen Long New Town. Shui Mun Tau Rest Garden is a small sitting out area, but it also located next to the footbridge that connects Nam Pin Wai/Yuen Long Kau Hui with the main shopping area of Yuen Long. This VP represents the entrance to the outskirt of Yuen Long New Town (i.e. Tung Tau, Long Ping Estate, Wang Chau and etc.).

VP2 – Tung Tau Industrial Area Playground

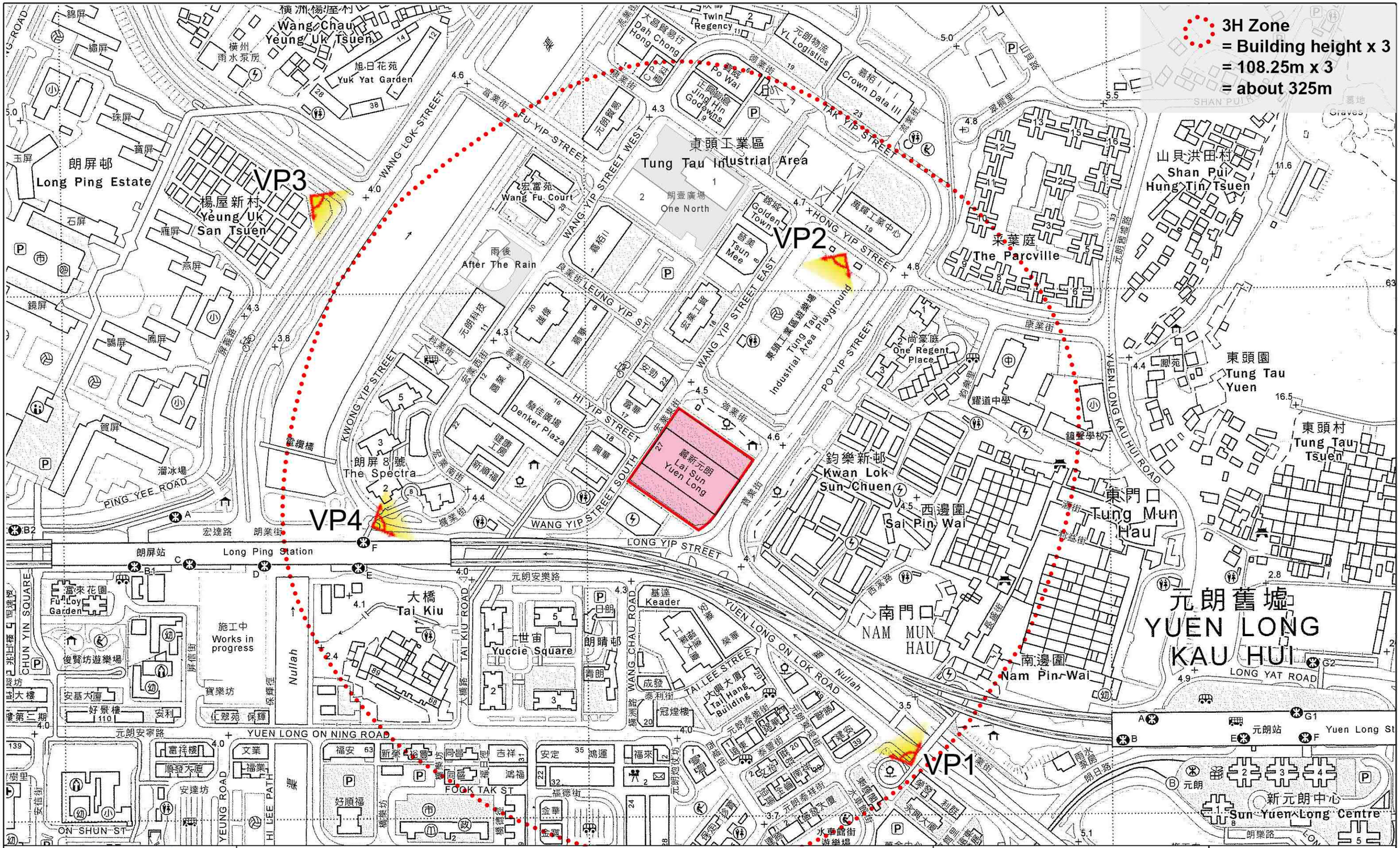
5.2.4 Tung Tau Industrial Area Playground is one of the key public open spaces in the area, serving both the working and living population. It contains 2 football fields and 2 basement ball courts. Users of Tung Tau Industrial Area Playground are usually engaging in active recreation (playing soccer and basketball) rather than passive recreation activities. However, the openness brought by the playground gives a wide vista towards Yuen Long Town Centre.

VP3 – Yeung Uk San Tsuen Sitting Out Area

5.2.5 Yeung Uk San Tsuen Sitting Out Area is located at the corner of Wang Lok Street and Fuk Hi Street, in which Fuk Hi Street leads to the future public housing developments in Wang Chau. This VP represents low-rise village type developments and future public housing developments to the west of nullah.

VP4 – Footbridge connecting Exit F of MTR Long Ping Station on Kwong Yip Street

5.2.6 The area enjoys excellent accessibility brought by MTR Long Ping Station and Exit F is the closest exit. This is a VP where travellers' visual attention may be caught by the proposed development. VSRs of VP3 are people walking to and from the station, therefore the sensitivity is relatively low.



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Location of Viewpoints

Proposed Residential Development with Minor Relaxation otf Plot Ratio and Building Height Restrictions at 21-35 Wang Yip Street East in Yuen Long

Figure 5.1

Visual Impact Assessment

Date: 10 July 2026

Table 5.2 Identified Key Public Viewers with Preliminary Analysis

Viewpoints (VPs)	Distance/ Direction	Height in mPD (Approx.)	Nature of VP	Key Public Viewers	Popularity by Public	Visual Sensitivity	Visual Quality
VP1: Shui Mun Tau Rest Garden on Yuen Long On Lok Road	Approx. 280m/ Southeast	+4.5	Users of the rest garden / General public	Frequent	Passive recreation	High	Fair
VP2: Tung Tau Industrial Area Playground	Approx. 215m/ Northeast	+5	Users of the playground / General public	Occasional	Active recreation	Medium to High	Good
VP3: Yeung Uk San Tsuen	Approx. 430/ Northwest	+4.8	Users of the playground / General public	Frequent	Passive recreation	Med High ium	Good
VP4: Footbridge connecting Exit F of MTR Long Ping Station on Kwong Yip Street	Approx. 250/ West	+4.5	General public	Transient	Pedestrian	Medium	Fair

6 ASSESSMENT OF VISUAL IMPACTS

6.1 General

6.1.1 The primary objective of this VIA is for evaluating the visual impact of the Proposed Residential Development in support of the S16 Planning Application. The assessment will focus on the visual composition, visual obstruction and visual change to the selected key public viewers.

6.2 VP1 - Shui Mun Tau Rest Garden on Yuen Long On Lok Road *(Figure 6.1 refers)*

Visual Composition

6.2.1 The Tuen Ma Line viaduct and the associated structures dominate the view at this VP. Yuen Long High Tech Centre (19 storeys) and part of the new residential development (namely After the Rain) are visible from this VP. The rest of the existing buildings in Tung Tau Industrial Area are either blocked by or intermingle with the railway viaduct and the associated structures in view of their low to medium building height; including the existing industrial building erected at the Site. As such, there is a rather clear skyline from this direction as per the existing condition. Upon completion of the Proposed Residential Development, the low-rise existing industrial building will be transformed into a high-rise residential building and will extrude on top of the viaduct. Whilst the area has an urban setting with existing medium to high-rise buildings in the background and large-scale infrastructure (railway viaduct) in the foreground, the high-rise Proposed Residential Building would not appear incompatible.

Visual Obstruction

6.2.2 As shown in **Figure 6.1**, the Proposed Residential Development will take up part of the skyline when viewing from VP1 and partially affect the visual openness experienced by the public viewers.

6.2.3 Comparing with the Approved Development Scheme which as a building height of 100.75mPD (max.), the Proposed Residential Development is going to introduce additional visual obstruction to the skyline.

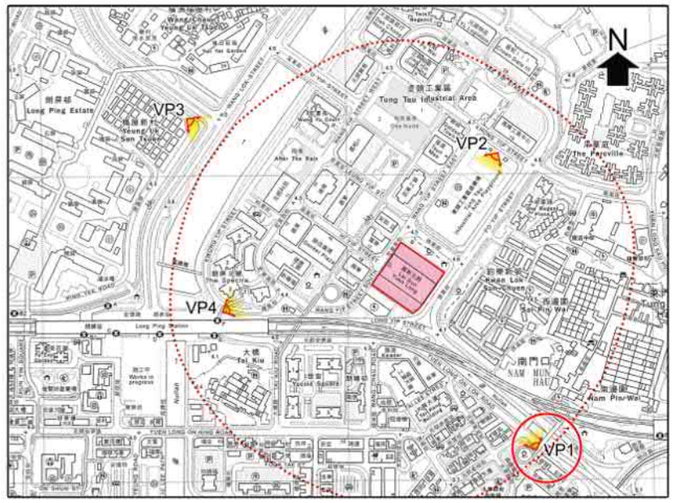
Visual Change

6.2.4 The public viewers will continue to experience a typical urban landscape view characterized by medium to high-rise developments. Development of the Proposed Residential Development would result in moderate visual change as compared with the existing condition. Such change would appear inevitably given the nature of the planning intention is to transform Tung Tau Industrial Area

for business use through the Government's encouragements in revitalizing the existing industrial buildings. Although the visual sensitivity of VP1 is high, the proposed building blends in well with the existing townscape and does not look visually incompatible; thus the effect on the visual experience of the VSRs is moderate. When comparing to the Approved Development Scheme, the increase in building height is considered insubstantial.

6.2.5 The Proposed Residential Development would become part of the urban landscape and it would not change the quality and character of the assessment area. The proposed stepping building height profile, 105.7mPD to 109.2mPD and 112.7mPD in a south to north direction, helps to add visual interest to the existing urban landscape. Therefore, the visual impact is considered only slightly adverse.

Existing Condition



Key Plan

Approved Residential Development under Application No. S/YL/304 (Building heigth at +100.75mPD max.)

Proposed Residential Development (Building heigth at +112.7mPD max.)

KTA PLANNING LIMITED 規劃顧問有限公司	Viewpoint 1 – Shui Mun Tau Rest Garden on Yuen Long On Lok Road	Proposed Residential Development with Minor Relaxation of Plot Ratio and Building Height Restrictions at 21-35 Wang Yip Street East in Yuen Long	Figure 6.1
		Visual Impact Assessment	Date: 10 July 2026

6.3 VP2 – Tung Tau Industrial Area Playground *(Figure 6.2 refers)*

Visual Composition

6.3.1 Ball courts appear in the foreground and existing buildings in Tung Tau and Yuen Long town centre appears in the background. The Site is located at the front row amongst those buildings, therefore the Proposed Residential Development appears rather eye-catching from this VP. The Proposed Residential Development will form part of the urban fabric at the background and is considered compatible in the setting.

Visual Obstruction

6.3.2 From this VP, there is no prominent visual resource other than the open sky view has been identified. While the openness brought by the ball courts in the foreground will be unaffected, the high-rise Proposed Residential Development is going to only obstruct the view towards another cluster of high-rise buildings at the back, and this will happen no matter the building height of the Approved Development Scheme (at +100.75 max.) or at 112.7mPD as proposed. Thus, the impact caused by the obstruction is considered slightly adverse.

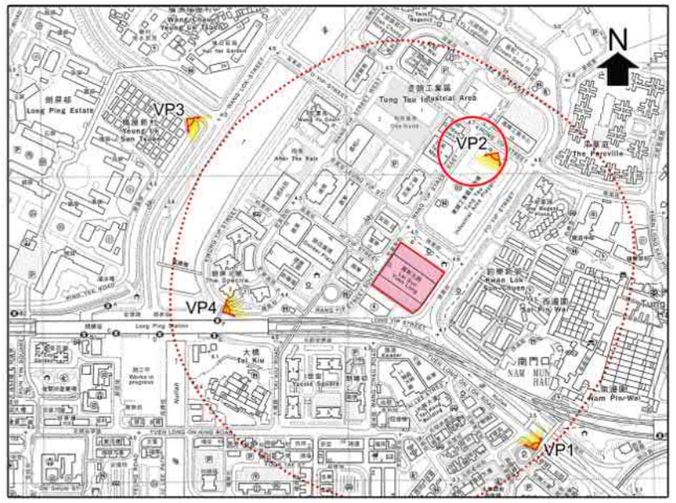
Visual Change

6.3.3 VSRs at this VP would most likely be focusing on the ball games, therefore their sensitivity is considered medium. The effect of visual change from a medium-rise industrial building to a high-rise residential building (be it at 100.75mPD or 112.7mPD) is considered moderate.

6.3.4 To address the visual change to be caused by the change from a medium-rise industrial building to a high-rise residential building, the Proposed Development Scheme tries to break down the building mass by creating a 15m gap between the two residential blocks. The refuge floor also serves the same purpose. The quality and character of the assessment area for being a developed industrial/business and new town development remains, but the impact to the public viewers (who mainly focus on ball games) would be slightly adverse.

6.3.5 The proposed 15m building gap between T1 and T2 would serve to create some visual interest as compared to the bulky existing building at the Site and other existing industrial buildings with high site coverage that are visible from this viewpoint.

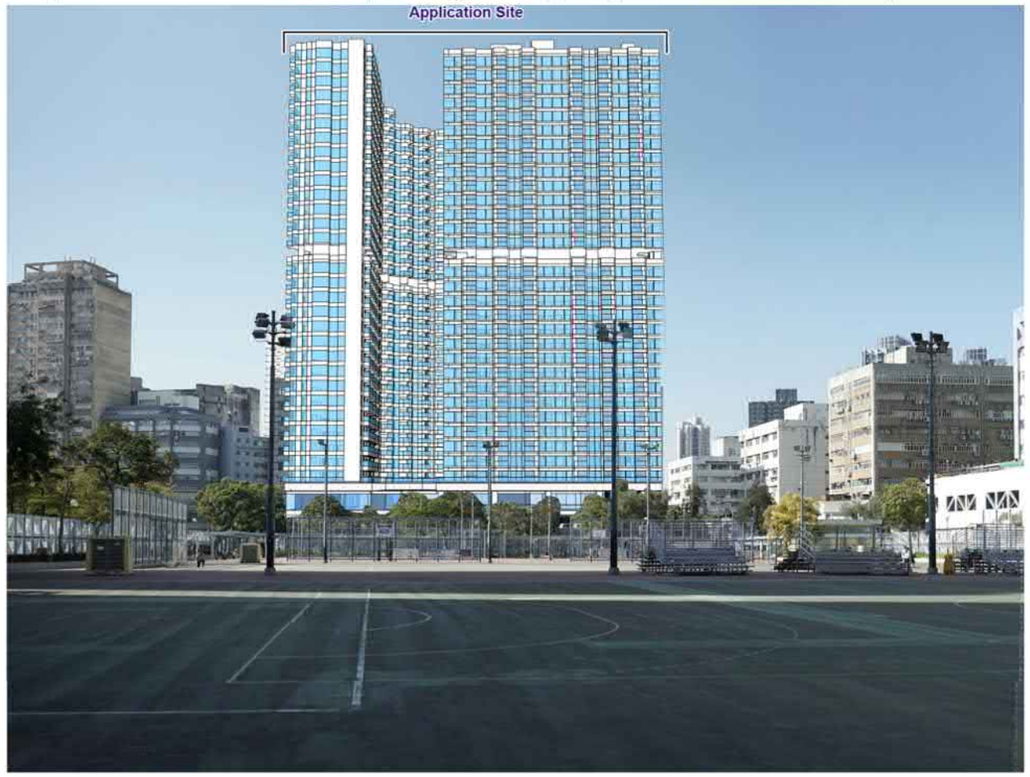
Existing Condition



Key Plan

Approved Residential Development under Application No. S/YL/304 (Building heigth at +100.75mPD max.)

Proposed Residential Development (Building heigth at +112.7mPD max.)



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Viewpoint 2 – Tung Tau Industrial Playground

Proposed Residential Development with Minor Relaxation of Plot Ratio and Building Height Restrictions at 21-35 Wang Yip Street East in Yuen Long

Figure 6.2

Visual Impact Assessment

Date: 10 July 2026

6.4 VP3 – Yeung Uk San Tsuen Sitting Out Area (Figure 6.3 refers)

Visual Composition

6.4.1 **Figure 6.3** showed the view of the Site from the northwest. View of the Site from this VP is dominated by a lush green plantations and trees within the sitting out area and along Wang Lok Street. This VP also captures the view towards the outer ring of Tung Tau Industrial Area, which has eventually been rezoned to "Residential (Group E)1" to encourage "*phasing out of existing industrial uses for residential use*" as well as the station development. A residential development (namely After the Rain), Yuen Long High Tech Centre and The Spectra are visible from this VP. The existing medium-rise industrial and commercial buildings, Hi Yip Factory Building and The Rainbow jointly create a wide gap to allow Yuccie Square, which is about 460m away, be partially visible from this VP. Yet, the Application is completely hidden by Yuen Long High Tech Centre.

Visual Obstruction

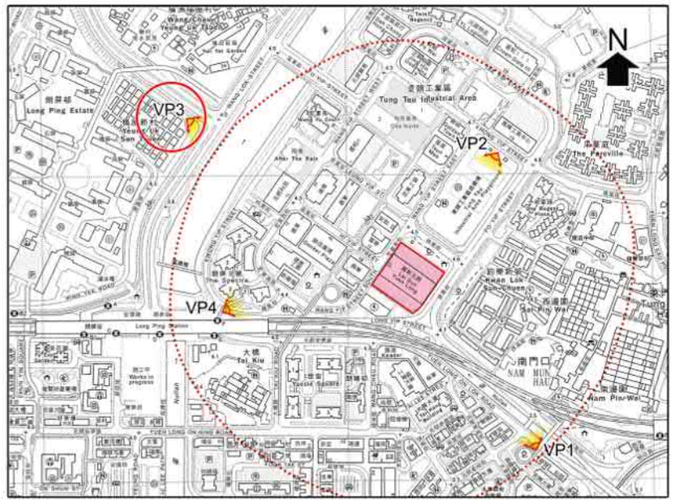
6.4.2 Existing buildings on the outer ring of Tung Tau Industrial Area obstruct views towards the centre and opposite side of Tung Tau Industrial Area, apart from the building gap mentioned above.

Visual Change

6.4.3 Public viewers at this VP are users of the sitting out area, thus their visual sensitivity would be high. The effect on their visual experience due to the Proposed Residential Development would be negligible since the Proposed Residential Development will continue to be blocked by Yuen Long High Tech Centre.

6.4.4 The condition and quality of this VP as well as the character of the area will remain unchanged. Thus, the overall visual impact to this VP is negligible.

Existing Condition



Key Plan

Proposed Residential Development

KTA PLANNING LIMITED 規劃顧問有限公司	Viewpoint 3 – Yeung Uk San Tsuen Sitting Out Area	Proposed Residential Development with Minor Relaxation of Plot Ratio and Building Height Restrictions at 21-35 Wang Yip Street East in Yuen Long	Figure 6.3
		Visual Impact Assessment	Date: 23 April 2026

6.5 VP4 – Footbridge connecting Exit F of MTR Long Ping Station on Kwong Yip Street *(Figure 6.4 refers)*

Visual Composition

6.5.1 **Figure 6.4** showed the view of the Site from this VP from the west. View of the Site from this VP is dominated by a lush green road side landscaping along Kwong Yip Street right in front of this VP. The building edge of Tower 1 of The Spectra and the existing industrial building at the Site are visible at this VP. A small portion of On Lok Road Substation is also visible. The Proposed Residential Development will appear to the right hand side of The Spectra and appear compatible with these existing buildings.

Visual Obstruction

6.5.2 The existing 10-storey industrial building at the Site creates openness and allows the view towards an open skyline. As shown in **Figure 6.4**, the Proposed Residential Development will take up part of the skyline and partially affect the visual openness experienced by the public viewers.

6.5.3 Comparing with the Approved Development Scheme, the Proposed Residential Development is going to introduce little additional visual obstruction to the skyline.

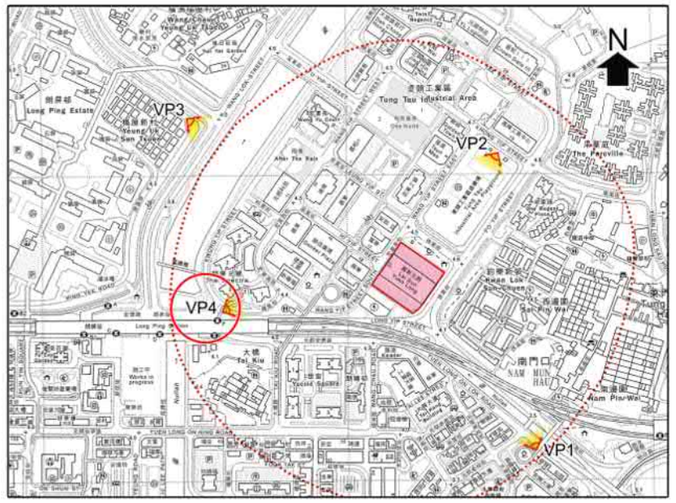
Effect on Public Viewers

6.5.4 Public viewers at this VP are at a transient mode, thus their visual sensitivity would be medium. The effect on their visual experience due to the Proposed Residential Development would be moderate. Their focus shall continue to remain on the lush green road side plantings as they walk along the footbridge.

Visual Change

6.5.5 The Proposed Residential Development appears right next to The Spectra, thus it forms an extension of the nearby existing residential building and makes no change to the character of the assessment area. The refuge floor helps to break down the building mass and increase permeability and the stepping building height also helps to introduce visual interest. Overall, the visual impact to this VP would be moderately adverse.

Existing Condition



Key Plan

Approved Residential Development under Application No. S/YL/304 (Building heigth at +100.75mPD max.)

Proposed Residential Development (Building height at +112.7mPD max.)

KTA PLANNING LIMITED 規劃顧問有限公司	Viewpoint 4 – Footbridge connection Exit F of MTR Long Ping Station	Proposed Residential Development with Minor Relaxation of Plot Ratio and Building Height Restrictions at 21-35 Wang Yip Street East in Yuen Long	Figure 6.4
		Visual Impact Assessment	Date: 10 July 2026

7 CONCLUSION

7.1 Based on the analysis on the appraisal of visual impact on Visual Composition, Visual Obstruction and Visual Change, Table 7.1 below presents the overall visual impact caused by the proposed redevelopment to the public viewers represented in each VP.

Table 7.1 Summary of Assessment of Visual Impact at the Viewpoints

Viewpoint	Location	Visual Impact due to Proposed Development
VP1	Shui Mun Tau Rest Garden on Yuen Long On Lok Road	Slightly Adverse
VP2	Tung Tau Industrial Area Playground	Slightly Adverse
VP3	Yeung Uk San Tsuen Sitting Out Area	Negligible
VP4	Footbridge connecting Exit F of MTR Long Ping Station on Kwong Yip Street	Moderately adverse

7.2 While the photomontage demonstrates that the Proposed Residential Development would be shielded by the existing medium-rise buildings on the outer ring of Tung Tau Industrial Area when viewing from VP3 hence would not be visible, photomontages from three of the other viewing points have shown that the Proposed Residential Development would not appear visually incompatible to the surrounding urban environment. Since the proposal involves changing from a medium-rise to a high-rise building, the visual change would result in slightly to moderately adverse visual impact.

7.3 To compare with the Approved Development Scheme, the visual obstruction and anticipated visual change would be comparable.

7.4 In view of all the above, it is considered that the Proposed Development Scheme, with 15m building gap, stepped height profile and refuge floor in place, would be congruous to the surrounding character of the adjacent buildings. Therefore, the Proposed Development is considered acceptable in the visual context.